

Oracle® Communications Diameter Signaling Router Measurement Reference Guide



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What's New in This Release

Release 8.6.0.0.0 - F55214-04, July 2023

- Added the following vSTP MP Performance measurements:
 - [VstpMpCpuAvg](#)
 - [VstpMpCpuPeak](#)
 - [VstpMpMSUFwdFail](#)
 - [VstpRxMpMSU](#)
 - [VstpRxMpTPSAvg](#)
 - [VstpRxMpTPSPeak](#)
 - [VstpTxMpMSU](#)
 - [VstpTxMpTPSAvg](#)
 - [VstpTxMpTPSPeak](#)
- Added the following vENUM Performance Measurements:
 - [EnumQueryRxPeak](#)
 - [EnumQueryRxAvg](#)
 - [SuccessfulEnumTxPeak](#)

Release 8.6.0.0.0 - F55214-03, August 2022

The following changes were made in this reissue for Release 8.6.0.0.0:

- Updated the Measurement Dimension to Single for [RxArtSelected](#)
- Removed the following measurements:
 - [CADataFIFOQueueFul](#)
 - [CARxDscrdConnUnavail](#)
 - [VstpMnpCAQueryProcesTime](#)
 - [VstpSccpMSUSCCPFLR](#)

Release 8.6.0.0.0 - F55214-02, June 2022

The following changes were made in this reissue for Release 8.6.0.0.0:

- Removed the following measurements from [vSTP MNP Performance measurements](#)
 - [VstpThrottleActionMsgRateAvg](#)
 - [VstpThrottleActionMsgRatePeak](#)
- Added the following new measurements in [vSTP MTP3 Exception measurements](#)
 - [VstpLnkCumlInhibitDuration](#)
 - [VstpLnkRemoteInhibit](#)
- Added the following measurements in [DCA Framework Performance measurements](#)

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- [RxDcaLogEventProcessed](#)
 - [RxDcaLogEventRateAvg](#)
 - [RxDcaLogEventRatePeak](#)
 - [RxDcaAsyncMsgQueueAvg](#)
 - [RxDcaAsyncMsgQueuePeak](#)

Release 8.6.0.0.0 - F55214-01, May 2022

The following changes were made in Release 8.6.0.0.0:

- Added the following new measurements
 - [VstpThrottleActionMsgRateAvg](#)
 - [VstpThrottleActionMsgRatePeak](#)
 - [VstpMtp2StackQueueFull](#)
 - [CAPM_RxProcessNAI](#)
 - [vSTPAtiNpMsgRecv](#)
- Updated the Measurement Dimensions for all measurements in the following Measurement groups:
 - [vSTP Link Exception measurements](#)
 - [vSTP Association Exception measurements](#)
 - [vSTP MTP2 Performance measurements](#)
 - [vSTP Link Usage measurements](#)
 - [Computer Aided Policy Making measurements](#)
- Updated the descriptions for all measurements in [vSTP SCCP Performance measurements](#) group.

1

Introduction

This section contains an overview of the available information for the DSR MAP-Diameter Interworking application.

1.1 Overview

The *DSR Measurements* documentation provides information about DSR measurements; and provides corrective maintenance procedures and other information used in maintaining the system.

- Information relevant to understanding measurements in the application
- Measurement report elements and procedures for viewing, printing, and exporting measurements
- Lists of measurements by function

1.2 Scope and Audience

This manual does not describe how to install or replace software or hardware.

This manual is intended for personnel who must maintain operation of the DSR. The manual provides lists of measurements along with preventive and corrective procedures that will aid personnel in maintaining the DSR.

The corrective maintenance procedures are those used in response to an output message. These procedures are used to help detect, isolate, and repair faults.

1.3 Manual Organization

Information in this manual is organized into the following sections:

- [Introduction](#) contains general information about this document.
- [Measurements Overview](#) provides general information about the application's measurements.
- [Measurements](#) provides detailed measurement information, organized alphabetically by measurement category.
- [Policy DRA Error Resolution Procedures](#) provides information regarding various error codes associated with Policy DRA.

1.4 My Oracle Support

My Oracle Support (<https://support.oracle.com>) is your initial point of contact for all product support and training needs. A representative at Customer Access Support can assist you with My Oracle Support registration.

Call the Customer Access Support main number at 1-800-223-1711 (toll-free in the US), or call the Oracle Support hotline for your local country from the list at <http://www.oracle.com/us/support/contact/index.html>. When calling, make the selections in the sequence shown below on the Support telephone menu:

1. Select **2** for New Service Request.
2. Select **3** for Hardware, Networking and Solaris Operating System Support.
3. Select one of the following options:
 - For Technical issues such as creating a new Service Request (SR), select **1**.
 - For Non-technical issues such as registration or assistance with My Oracle Support, select **2**.

You are connected to a live agent who can assist you with My Oracle Support registration and opening a support ticket.

My Oracle Support is available 24 hours a day, 7 days a week, 365 days a year.

2

Measurements Overview

This section provides general information about the application's measurements.

2.1 Help Organization

Information in this document is organized into the following sections:

- [Measurements Overview](#) provides general information about the application's measurements.
- [Measurements](#) provides detailed measurement information, organized alphabetically by measurement category.

2.2 Measurements Warning



Note:

For the most up-to-date information, refer to the MIB document posted with each software release on the [Oracle Software Delivery Cloud \(OSDC\)](#) site.

2.3 Viewing the file list

Use this procedure to view the list of files located in the file management storage area of a server. The amount of storage space currently in use can also be viewed on the Files page.

1. From the Main menu, select **Status & Manage**, and then **Files**.
2. Select a server.

All files stored on the selected server are displayed.

2.4 Opening a File

Use this procedure to open a file stored in the file management storage area.

1. Select **Status & Manage**, and then **Files**.
2. Select an **NE Name**.
3. Click **List Files**.

The Status & Manage Files list page for the selected network element displays all files stored in its file management storage area.

4. Click the **Filename** of the file to be opened.
5. Click **Open** to open the file.

2.5 Data Export

From the Data Export page you can set an export target to receive exported performance data for measurements, which can be filtered and exported using this feature. For more information about how to create data export tasks for measurements, see:

- [Exporting Measurements Reports](#)

From the Data Export page you can manage file compression strategy and schedule the frequency with which data files are exported.

2.5.1 Data Export elements

This table describes the elements on the **Administration**, and then **Remote Servers**, and then **Data Export** page.

Table 2-1 Data Export Elements

Element	Description	Data Input Notes
Hostname	Name of export server	<p>Must be a valid hostname or a valid IP address.</p> <p>Range: Maximum length is 255 characters; alphanumeric characters (a-z, A-Z, and 0-9) and minus sign. Hostname must start and end with an alphanumeric.</p> <p>To clear the current export server and remove the file transfer task, specify an empty hostname and username.</p> <p>Default: None</p>
Username	Username used to access the export server	<p>Format: Textbox</p> <p>Range: Maximum length is 32 characters; alphanumeric characters (a-z, A-Z, and 0-9).</p> <p>To clear the current export server and remove the file transfer task, specify an empty hostname and username.</p> <p>Default: None</p>
Directory on Export Server	Directory path on the export server where the exported data files are to be transferred	<p>Format: Textbox</p> <p>Range: Maximum length is 255 characters; valid value is any UNIX string.</p> <p>Default: None</p>

Table 2-1 (Cont.) Data Export Elements

Element	Description	Data Input Notes
Path to rsync on Export Server	Optional path to the rsync binary on the export server	Format: Textbox Range: Maximum length is 4096 characters; alphanumeric characters (a-z, A-Z, and 0-9),dash, underscore, period, and forward slash. Default: If no path is specified, the username's home directory on the export server is used
Backup File Copy Enabled	Enables or disables the transfer of the backup files	Format: Checkbox Default: Disabled (unchecked)
File Compression	Compression algorithm used when exported data files are initially created on the local host	Format: Option Range: gzip, bzip2, or none Default: gzip
Upload Frequency	Frequency at which the export occurs	Format: Option Range: fifteen minutes, hourly, daily or weekly Default: weekly
Minute	If The Upload Frequency is Hourly, this is the minute of each hour when the transfer is set to begin	Format: Scrolling list Range: 0 to 59 Default: zero
Time of Day	If the Upload Frequency is Daily or Weekly, this is the time of day the export occurs	Format: Time textbox Range: HH:MM AM/PM in 15-minute increments Default: 12:00 AM
Day of Week	If Upload Frequency is Weekly, this is the day of the week when exported data files will be transferred to the export server.	Format: Option Range: Sunday through Saturday Default: Sunday
SSH Key Exchange	This button initiates an SSH key exchange between the OAM server and the data export server currently defined on the page. A password must be entered before the exchange can complete.	Format: Button
Transfer Now	This button initiates an immediate attempt to transfer any data files in the export directory to the export server.	Format: Button
Test Transfer	This button initiates an immediate test transfer to the data export server currently defined on the page.	Format: Button

Table 2-1 (Cont.) Data Export Elements

Element	Description	Data Input Notes
Keys Report	This button generates an SSH Keys Report for all OAM servers.	Format: Button

2.5.2 Configuring data export

The Data Export page enables you to configure a server to receive exported performance and configuration data. Use this procedure to configure data export.

1. Select **Administration**, and then **Remote Servers**, and then **Data Export**.
2. Enter a **Hostname**.
See [Data Export elements](#) for details about the **Hostname** field and other fields that display on this page.
3. Enter a **Username**.
4. Enter a **Directory Path** on the Export server.
5. (Optional) Enter the **Path to Rsync** on the Export server.

Note:

Depending on the OS and implementation of the remote server, it may be required to define the path to the rsync binary on the export server but this is not common. If no path is specified, the username's home directory on the export server is used.

6. Select whether to enable the transfer of the backup file. To leave the backup disabled, do not check the box.
7. Select the **File Compression** type.
8. Select the **Upload Frequency**.
9. If you selected hourly for the upload frequency, select the **Minute** intervals.
10. If you selected daily or weekly for the upload frequency, select the **Time of Day**.
11. If you selected weekly for the upload frequency, select the **Day of the Week**.
12. If public keys were manually placed on the Export server, skip to step 14.
Otherwise, click **Exchange SSH Key** to transfer the SSH keys to the Export server.
13. Enter the password.
The server attempts to exchange keys with the export server currently defined on the page. After the SSH keys are successfully exchanged, continue with the next step.
14. Click **OK** to apply the changes or **Cancel** to discard the changes.
The export server is now configured and available to receive performance and configuration data.

15. You may optionally click **Test Transfer** to confirm the ability to export to the server currently defined on the page.

The user can monitor the progress of the task by selecting the **Tasks** drop down list in the page control area.

2.6 Tasks

The Tasks pages display the active, long running tasks and scheduled tasks on a selected server. The Active Tasks page provides information such as status, start time, progress, and results for long running tasks, while the Scheduled Tasks page provides a location to view, edit, and delete tasks scheduled to occur.

2.6.1 Active Tasks

The Active Tasks page displays the long running tasks on a selected server. The Active Tasks page provides information such as status, start time, progress, and results, all of which can be generated into a report. Additionally, you can pause, restart, or delete tasks from this page.

2.6.1.1 Active Tasks elements

The Active Tasks page displays information in a tabular format where each tab represents a unique server. By default, the current server's tab is selected when the page is loaded. [Table 2-2](#) describes elements on the Active Tasks page.

Table 2-2 Active Tasks Elements

Active Tasks Element	Description
ID	Task ID
Name	Task name
Status	Current status of the task. Status values include: running, paused, completed, exception, and trapped.
Start Time	Time and date when the task was started
Update Time	Time and date the task's status was last updated
Result	Integer return code of the task. Values other than 0 (zero) indicate abnormal termination of the task. Each value has a task-specific meaning.
Result Details	Details about the result of the task
Progress	Current progress of the task

2.6.1.2 Deleting a task

Use this procedure to delete one or more tasks.

1. Click **Status & Manage**, and then **Tasks**, and then **Active Tasks**.
2. Select a server.

 **Note:**

Hovering the cursor over any tab displays the name of the server.

All active tasks on the selected server are displayed.

3. Select one or more tasks.

 **Note:**

To delete a single task or multiple tasks, the status of each task selected must be one of the following: completed, exception, or trapped.

 **Note:**

You can select multiple rows to delete at one time. To select multiple rows, press and hold Ctrl as you click to select specific rows.

4. Click **Delete**.
5. Click **OK** to delete the selected task(s).

2.6.1.3 Deleting all completed tasks

Use this procedure to delete all completed tasks.

1. Click **Status & Manage**, and then **Tasks**, and then **Active Tasks**.
2. Select a server.

 **Note:**

Hovering the cursor over any tab displays the name of the server.

All active tasks on the selected server are displayed.

3. Click **Delete all Completed**.
4. Click **OK** to delete all completed tasks.

2.6.1.4 Cancelling a running or paused task

Use this procedure to cancel a task that is running or paused.

1. Click **Status & Manage**, and then **Tasks**, and then **Active Tasks**.
2. Select a server.

 **Note:**

Hovering the cursor over any tab displays the name of the server.

All active tasks on the selected server are displayed.

3. Select a task.
4. Click **Cancel**.
5. Click **OK** to cancel the selected task.

2.6.1.5 Pausing a task

Use this procedure to pause a task.

1. Click **Status & Manage**, and then **Tasks**, and then **Active Tasks**.
2. Select a server.

 **Note:**

Hovering the mouse over any tab displays the name of the server.

All active tasks on the selected server are displayed.

3. Select a task.

 **Note:**

A task may be paused only if the status of the task is running.

4. Click **Pause**.
A confirmation box appears.
5. Click **OK** to pause the selected task.

For information about restarting a paused task, see [Restarting a task](#).

2.6.1.6 Restarting a task

Use this procedure to restart a task.

1. Click **Status & Manage**, and then **Tasks**, and then **Active Tasks**.
2. Select a server.

 **Note:**

Hovering the mouse over any tab displays the name of the server.

All active tasks on the selected server are displayed.

3. Select a paused task.

 **Note:**

A task may be restarted only if the status of the task is paused.

4. Click **Restart**.
A confirmation box appears.
5. Click **OK** to restart the selected task.
The selected task is restarted.

2.6.1.7 Active Tasks report elements

The Active Tasks [Report] page displays report data for selected tasks. [Table 2-3](#) describes elements on the Active Tasks [Report] page.

Table 2-3 Active Tasks Report Elements

Active Tasks Report Element	Description
Task ID	Task ID
Display Name	Task name
Task State	Current status of the task. Status values include: running, paused, completed, exception, and trapped.
Admin State	Confirms task status
Start Time	Time and date when the task was started
Last Update Time	Time and date the task's status was last updated
Elapsed Time	Time to complete the task
Result	Integer return code of the task. Values other than 0 (zero) indicate abnormal termination of the task. Each value has a task-specific meaning.
Result Details	Details about the result of the task

2.6.1.8 Generating an active task report

Use this procedure to generate an active task report.

1. Click **Status & Manage**, and then **Tasks**, and then **Active Tasks**.
2. Select a server.

 **Note:**

Hovering the mouse over any tab displays the name of the server.

All active tasks on the selected server are displayed.

3. Select one or more tasks.

 **Note:**

If no tasks are selected, all tasks matching the current filter criteria is included in the report.

4. Click **Report**.
5. Click **Print** to print the report.
6. Click **Save** to save the report.

2.6.2 Scheduled Tasks

The periodic export of measurement data can be scheduled through the GUI. The Scheduled Tasks page provides you with a location to view, edit, delete and generate reports of these scheduled tasks. For more information about the measurement data that can be exported, see:

- [Exporting Measurements Reports](#)

2.6.2.1 Scheduled Tasks elements

The Scheduled Tasks page displays information in a tabular format where each tab represents a unique server. By default, the current server's tab is selected when the page is loaded. [Table 2-4](#) describes elements on the Scheduled Tasks page.

Table 2-4 Scheduled Tasks Elements

Scheduled Tasks Element	Description
Task Name	Name given at the time of task creation
Description	Description of the task
Time of Day	The hour and minute the task is scheduled to run
Day-of-Week	Day of the week the task is scheduled to run
Network Elem	The Network Element associated with the task

2.6.2.2 Editing a scheduled task

Use this procedure to edit a scheduled task.

1. Click **Status & Manage**, and then **Tasks**, and then **Scheduled Tasks**.
All scheduled tasks are displayed on the Scheduled Tasks page.
2. Select a task.
3. Click **Edit**.
The Data Export page for the selected task appears.
4. Edit the available fields as necessary.
See [Scheduled Tasks elements](#) for details about the fields that appear on this page.
5. Click **OK** or **Apply** to submit the changes and return to the Scheduled Tasks page.

2.6.2.3 Deleting a scheduled task

Use this procedure to delete one or more scheduled tasks.

1. Click **Status & Manage**, and then **Tasks**, and then **Scheduled Tasks**.
All scheduled tasks are displayed on the Scheduled Tasks page.
2. Select one or more tasks.
3. Click **Delete**.
4. Click **OK** to delete the selected task(s).

2.6.2.4 Generating a scheduled task report

Use this procedure to generate a scheduled task report.

1. Click **Status & Manage**, and then **Tasks**, and then **Scheduled Tasks**.
All scheduled tasks are displayed on the Scheduled Tasks page.
2. Select one or more tasks.

 **Note:**

If no tasks are selected, all tasks matching the current filter criteria is included in the report.

3. Click **Report**.
4. Click **Print** to print the report.
5. Click **Save** to save the report.

3

Measurements

This section provides an overview of the options on the Measurements page. All components of the system measure the amount and type of messages sent and received. Measurement data collected from all components of the system can be used for multiple purposes, including discerning traffic patterns and user behavior, traffic modeling, size traffic sensitive resources, and troubleshooting. This section provides an overview of measurements, describes how to generate and export a measurements report, and provides a list of register types.

3.1 General measurements information

This section provides general information about measurements, measurement-related GUI elements, and measurement report procedures.

3.1.1 Measurements

The measurements framework allows applications to define, update, and produce reports for various measurements.

- Measurements are ordinary counters that count occurrences of different events within the system, for example, the number of messages received. Measurement counters are also called pegs. Additional measurement types provided by the Platform framework are not used in this release.
- Applications simply peg (increment) measurements upon the occurrence of the event that needs to be measured.
- Measurements are collected and merged at the SOAM and NOAM servers as appropriate.
- The GUI allows reports to be generated from measurements.

Measurements that are being pegged locally are collected from shared memory and stored in a disk-backed database table every 5 minutes on all servers in the network. Measurements are collected every 5 minutes on a 5 minute boundary; for example, at HH:00, HH:05, HH:10, HH:15, and so on. The collection frequency is set to 5 minutes to minimize the loss of measurement data in case of a server failure, and also to minimize the impact of measurements collection on system performance.

All servers in the network (NOAM, SOAM, and MP servers) store a minimum of 8 hours of local measurements data. More than 5 minutes of local measurements data is retained on each server to minimize loss of measurements data in case of a network connection failure to the server merging measurements.

Measurements data older than the required retention period are deleted by the measurements framework.

Measurements are reported in groups. A measurements report group is a collection of measurement IDs. Each measurement report contains one measurement group. A measurement can be assigned to one or more existing or new measurement groups so that it is included in a measurement report. Assigning a measurement ID to a report group ensures

that when you select a report group the same set of measurements is always included in the measurements report.

Some measurements display as blank (or non-value) and some display as 0. A blank measurement indicates a counter has not been created in the selected reporting interval. A zero measurement indicates the counter was created, but never pegged. The report may also leave a measurement or sub-measurement out entirely if this item was not created/pegged at all in the reporting interval.

 **Note:**

Measurements from a server may be missing in a report if the server is down; the server is in overload; something in the Platform merging framework is not working; or the report is generated before data is available from the last collection period (there is a 25 to 30 second lag time in availability).

 **Note:**

The maximum number of columns displayed in the Measurement report GUI is limited to 150 columns. Export the report to view all columns.

3.1.2 Measurement Elements

Table 3-1 describes the elements on the **Measurements**, and then **Report** page.

Table 3-1 Measurements Elements

Element	Description	Data Input Notes
Report	A selection of reports and the interval of how often the data should cover.	Format: List Range: Varies depending on application Interval: Day, Fifteen Minutes, Five Minutes, Half Hour, Hour Default: None
Scope	Network Elements, Server Groups, Resource Domains, Places, and Place Associations for which the measurement report can be run.	Format: List Range: Network Elements in the topology; Server Groups in the topology; Resource Domains in the topology; Places in the topology; Place Associations in the topology Note: If no selection is made, the default scope is Entire Network. Default: Entire Network

Table 3-1 (Cont.) Measurements Elements

Element	Description	Data Input Notes
Column Filter	The characteristics for filtering the column display.	Format: List Range: Sub-measurement Sub-measurement Ranges: <ul style="list-style-type: none"> Like: A pattern-matching distinction for sub-measurement name, for example, 123* matches any sub-measurement that begins with 123. In: A list-matching distinction for sub-measurement ID, for example, 3,4,6-10 matches only sub-measurements 3, 4, and 6 through 10. Default: None
Time Range	The interval of time for which the data is being reported, beginning or ending on a specified date.	Format: List Range: Days, Hours, Minutes, Seconds Interval Reference Point: Ending, Beginning Default: Days

3.1.3 Generating a Measurements Report

Use this procedure to generate and view a measurements report.

Note:

There are number of factors that derive the time taken for exporting the measurements like:

- Measurement groups per export task
- Measurements per Measurement group, whether measurement is arrayed or non-arrayed
- Measurement Pegs
- Number of servers in a topology
- Availability of system resources like CPU and Memory

Refer to [Table 3-2](#) to assess the number of measurement reports generated for each measurement group or scheduled in an export task. For example, an Address Resolution Exception measurement group has single and arrayed measurement types so two measurement reports are generated: one for sing and another for arrayed measurements.

Table 3-2 Number of Measurement Reports for Each Measurement Group

Report Group	Sub-Group	Type	Number of Measurements
Address Resolution Exception		Single	5
		Arrayed	15
Address Resolution Performance		Single	4
		Arrayed	21
Application Routing Rules	MeasARTId	Arrayed	1
	MeasApplRoutingRuleId	Arrayed	4
Association Exception		Arrayed	4
Association Usage		Arrayed	1
CAPM	MeasCapmDefId	Arrayed	5
	MeasCapmMeasId	Arrayed	1
	MeasConnectionId	Arrayed	4
CPA Exception		Single	11
		Arrayed	2
CPA Performance		Single	14
CPA Session DB		Single	11
		Arrayed	1
ComAgent Exception	ComAgentHAServiceExceptionArrayed	Arrayed	6
	ComAgentHAServiceExceptionSingle	Single	1
	ComAgentMeasExceptionArrayed	Arrayed	1
	ComAgentMeasExceptionSingle	Single	23
	ComAgentPeerGroupExceptionArrayed	Arrayed	2
	ComAgentPeerGroupExceptionSingle	Single	1
	ComAgentPolicerFetchExceptionArrayed	Arrayed	1
	ComAgentRoutedServiceExceptionArrayed	Arrayed	17
ComAgent Performance	ComAgentHAServicePerformanceArrayed	Arrayed	3
	ComAgentMeasPerformanceArrayed	Arrayed	2
	ComAgentMeasPerformanceSingle	Single	15
	ComAgentPeerGroupPerformanceArrayed	Arrayed	2
	ComAgentRoutedServicePerformanceArrayed	Arrayed	12

Table 3-2 (Cont.) Number of Measurement Reports for Each Measurement Group

Report Group	Sub-Group	Type	Number of Measurements
Connection Congestion		Arrayed	2
Connection Exception		Arrayed	2
Connection Performance	Egress	Arrayed	24
	Egress Congestion Control	Arrayed	10
	Ingress	Arrayed	7
	Ingress Congestion Control	Arrayed	21
	Message Priority	Arrayed	18
Connection Service		Arrayed	7
Connection Transport		Arrayed	13
DA-MP Exception		Single	2
DA-MP Performance		Single	211
		Arrayed	4
DA-MP Service		Single	2
DAS		Single	14
		Arrayed	1
DCA Framework Exception	DcaDalld	Arrayed	5
DCA Framework Performance	DcaDalld	Arrayed	21
DSR Application Exception		Single	4
		Arrayed	3
DSR Application Performance		Single	14
		Arrayed	5
Diameter EIR Exception		Single	23
Diameter EIR Performance		Single	5
		Arrayed	4
Diameter EIR Usage		Single	31
Diameter Egress Transaction		Single	2
		Arrayed	8
Diameter Exception		Single	3
		Arrayed	6
Diameter Ingress Transaction Exception		Single	3
		Arrayed	10
Diameter Ingress Transaction Performance		Arrayed	8
Diameter Performance		Single	6
	MeasConnectionId	Arrayed	6

Table 3-2 (Cont.) Number of Measurement Reports for Each Measurement Group

Report Group	Sub-Group	Type	Number of Measurements
Diameter Rerouting		Single	2
		Arrayed	6
Egress Throttle Group Performance		Arrayed	168
Egress Throttle List Performance		Arrayed	167
Full Address Resolution Exception		Single	5
		Arrayed	15
Full Address Resolution Performance		Single	10
		Arrayed	14
HTTP Layer Performance		Single	14
		Arrayed	2
IDIH		Single	7
IPFE Exception	IpfeTotal	Single	2
	IpfeTsa	Arrayed	6
IPFE Performance	IpfeMpServer	Arrayed	6
	IpfeTotal	Single	5
	IpfeTsa	Arrayed	6
License Measurements		Single	15
		Arrayed	14
Link Exception		Arrayed	4
Link Performance		Arrayed	4
Link Set Performance		Arrayed	4
Link Set Usage		Arrayed	1
Link Usage		Arrayed	4
LoadGen Performance		Single	6
MP Performance		Single	11
Message Priority		Single	16
OAM.ALARM		Single	4
OAM.PERF		Single	17
	Audits	Arrayed	3
	AwSoap	Arrayed	3
	CmSoap	Arrayed	3
	GuiHttp	Arrayed	3
	MmiHttp	Arrayed	3
	TpdSoap	Arrayed	3
OAM.SYSTEM		Single	14
		Arrayed	2
OC-DRA Congestion Exception		Arrayed	1

Table 3-2 (Cont.) Number of Measurement Reports for Each Measurement Group

Report Group	Sub-Group	Type	Number of Measurements
OC-DRA Diameter Exception		Single	12
		Arrayed	13
OC-DRA Diameter Usage		Single	2
		Arrayed	4
	HistogramMeasBuckets	Arrayed	2
P-DRA Congestion Exception		Single	6
P-DRA Diameter Exception		Single	23
		Arrayed	1
P-DRA Diameter Usage		Single	22
	HistogramMeasBuckets	Arrayed	11
	MeasApn	Arrayed	1
	MeasBuckets	Arrayed	1
	MeasPcrfPool	Arrayed	1
	MeasSubPoolRule	Arrayed	1
P-DRA Site Diameter Usage	MeasSBRuleIncCnt	Arrayed	1
	MeasSBRuleRmvLmt	Arrayed	1
PCA NGN-PS Exception		Single	3
PCA NGN-PS Performance		Single	1
Peer Node Performance		Arrayed	5
Peer Routing Rules	MeasPRTId	Arrayed	1
	MeasPeerRoutingRuleId	Arrayed	4
RD-IWF Performance		Single	7
Route Group Exception		Arrayed	2
Route Group Performance		Arrayed	21
Route List		Arrayed	4
Routing Usage		Arrayed	5
SBR Audit		Single	31
SBR Binding Exception		Single	11
		Arrayed	1
SBR Binding Performance		Single	18
		Arrayed	1
	MeasAltKeys	Arrayed	1
	MeasBuckets	Arrayed	2
	MeasSBRemoval	Arrayed	1

Table 3-2 (Cont.) Number of Measurement Reports for Each Measurement Group

Report Group	Sub-Group	Type	Number of Measurements
SBR Exception		Single	4
		Arrayed	6
SBR Performance		Single	15
		Arrayed	4
SBR Session Exception		Single	11
	MeasPendingRarDel	Arrayed	1
SBR Session Performance		Single	18
		Arrayed	2
	MeasApn	Arrayed	2
	MeasBuckets	Arrayed	3
	MeasInvokeSisRarType	Arrayed	1
	MeasInvokeSisResult	Arrayed	1
	MeasSessionsRemovedSis	Arrayed	1
SCEF Device Triggering Exception		Single	2
		Arrayed	2
SCEF Device Triggering Performance		Single	12
		Arrayed	25
SCEF ECR Exception		Single	1
		Arrayed	1
SCEF ECR Performance		Single	5
		Arrayed	15
SCEF Exception		Single	13
		Arrayed	1
SCEF Monitoring Exception		Arrayed	3
SCEF Monitoring Performance		Single	5
		Arrayed	91
SCEF NIDD Exception		Single	9
		Arrayed	14
SCEF NIDD Performance		Single	15
		Arrayed	36
SCEF Performance		Single	20
		Arrayed	1
Server Exception		Single	2
Server M3UA Exception		Single	6
Server M3UA Performance		Single	8
Server M3UA Usage		Single	7

Table 3-2 (Cont.) Number of Measurement Reports for Each Measurement Group

Report Group	Sub-Group	Type	Number of Measurements
Server MTP3 Exception		Single	9
		Arrayed	1
Server MTP3 Performance		Single	4
		Arrayed	2
Server Resource Usage		Single	8
Server SCCP Exception		Single	28
		Arrayed	1
Server SCCP Performance		Single	18
		Arrayed	4
Server TCAP Exception		Single	19
		Arrayed	1
Server TCAP Performance		Single	8
		Arrayed	2
Task Performance		Arrayed	33
SS7 Exception measurements			
SS7 Performance measurements			
Topology Hiding Performance		Single	10
		Arrayed	10
Traffic Throttle Group Performance		Arrayed	23
Traffic Throttle Point Performance		Arrayed	139
Transport Exception		Arrayed	10
Transport Performance		Arrayed	12
Transport Usage		Arrayed	2
Traffic Throttle Group Performance measurements			
Traffic Throttle Point Performance Measurements			
USBR Performance		Single	1
		Arrayed	10
vSTP Association Exception		Arrayed	13
vSTP Association Usages		Arrayed	3
vSTP IDPR Performance measurements		Single	36

Table 3-2 (Cont.) Number of Measurement Reports for Each Measurement Group

Report Group	Sub-Group	Type	Number of Measurements
vSTP CDPA TT		Arrayed	10
vSTP CGPA TT		Arrayed	10
vSTP Connection		Arrayed	9
vSTP Connection Exception		Single	1
vSTP Connection Performance		Arrayed	10
vSTP EIR Exception		Single	7
vSTP EIR Performance		Single	27
		Arrayed	1
vSTP GFLEX Exception		Single	2
vSTP GFLEX Performance		Single	1
vSTP ISUP Exception		Single	9
vSTP ISUP Performance		Single	5
vSTP MP Performance		Single	6
vSTP LICENSING		Single	4
		Arrayed	2
vSTP LSS Exception		Single	6
vSTP LSS Performance		Single	4
		Arrayed	1
vSTP Link Exception		Arrayed	12
vSTP Link Performance		Arrayed	11
vSTP Link Usage		Arrayed	12
vSTP Linkset Exception		Arrayed	1
vSTP Linkset Performance		Arrayed	7
vSTP Linkset Usage		Arrayed	1
vSTP M2PA Exception	VSTPM2PAException Arrayed	Arrayed	1
	VSTPM2PAException Single	Single	2
	VSTPM2PAException VstpLinkArrayed	Arrayed	14
vSTP M2PA Performance		Single	9
		Arrayed	4
vSTP M3UA Exception		Single	9

Table 3-2 (Cont.) Number of Measurement Reports for Each Measurement Group

Report Group	Sub-Group	Type	Number of Measurements
vSTP M3UA Performance		Single	4
vSTP M3UA Usage		Single	27
vSTP MNP Exception		Single	11
vSTP MNP Performance		Single	19
		Arrayed	1
vSTP MTP2 Performance		Single	5
		Arrayed	1
vSTP MTP2 Exception		Arrayed by Link ID	12
vSTP MTP3 Exception		Single	13
		Arrayed	5
vSTP MTP3 Performance		Single	12
		Arrayed	7
vSTP SCCP Exception		Single	12
		Arrayed	4
vSTP SCCP Performance		Single	36
		Arrayed	16
vSTP SCCP Usages		Single	1
vSTP Server Exception		Single	5
vSTP Server Usage		Single	4
vSTP MNP Exception		Single	2
vSTP MNP Performance		Single	3
vSTP SFAPP Performance		Single	22
		Arrayed	5
vSTP SFAPP Exception		Single	9
vSTP SMS Proxy Performance		Arrayed	7
		Single	27
vSTP SMS Proxy Exception		Arrayed	11
		Single	22
vSTP GFLEX Performance		Arrayed	1
		Single	

1. Click **Measurements**, and then **Report**.
2. Select the **Measurement Report**.
3. Click **Interval**.
4. Select the **Scope**.

For details about this field, or any field on the **Measurements**, and then **Report** page, see [Measurement Elements](#).

5. (Optional) Select any filters you may want on the report.
6. Click **Time Range**.
7. Select **Beginning** or **Ending** as the **Time Range** interval reference point.
8. Select the **Beginning** or **Ending** date.
9. Click **Go**.

 **Note:**

Data for the selected scope is displayed in the primary report page. Data for any available sub-scopes are displayed in tabs. For example, if the selected scope is Entire Network, report data for the entire network appears in the primary report page. The individual network entities within the entire network are considered sub-scopes.

10. To view report data for a specific sub-scope, click on the tab for that sub-scope.

3.1.4 Measurements Data Export Elements

This table describes the elements on the **Measurements**, and then **Report** , and then **Go to Export** page.

Table 3-3 Schedule Measurement Data Export Elements

Element	Description	Data Input Notes
Report Scope	A collection of configurable elements to control report scope.	Format: Options
Report Groups	A graphical list of available groups for report generation.	Format: Options
Time Interval	A configurable element to schedule report generation export frequency.	Format: Options Range: Day, Fifteen Minute, Five Minute, Half Hour, and Hour
Time Range	A configurable element to manage report generation.	Format: Options Range: Days, Hours, Minutes, or Seconds Default: Days

Table 3-3 (Cont.) Schedule Measurement Data Export Elements

Element	Description	Data Input Notes
Export Frequency	Frequency at which the export occurs	Format: Options Range: Once, Fifteen Minutes, Hourly, Daily, or Weekly Default: Once Note: Depending on what upload frequency is selected, some scheduling choices may become inactive and the buttons or lists are grayed out. Note that the Fifteen Minute, Hourly, Daily, and Weekly scheduling options are only available when provisioning is enabled.
Task Name	Name of the scheduled task.	Format: Text box Range: Maximum length is 40 characters; alphanumeric (a-z, A-Z, and 0-9) and minus sign (-). Task Name must begin and end with an alphanumeric character.
Description	Optional. Description of the scheduled task.	Format: Text box Range: Maximum length is 255 characters; alphanumeric (a-z, A-Z, and 0-9) and minus sign (-). Description must begin with an alphanumeric character.
Export Frequency	Optional. Frequency at which the export occurs.	Format: Radio button Range: Fifteen Minutes, Hourly, Once, Weekly, or Daily Default: Once
Minute	If hourly or fifteen minutes is selected for Upload Frequency, this is the minute of each hour when the data will be written to the export directory.	Format: Scrolling list Range: 0 to 59 Default: 0
Time of Day	Time of day the export occurs.	Format: Time text box Range: 15-minute increments Default: 12:00 AM
Day of Week	Day of week on which the export occurs.	Format: Radio button Range: Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, or Saturday Default: Sunday

3.1.5 Exporting Measurements Reports

You can schedule periodic exports of data from the **Measurements Report** page. Measurements data can be exported immediately, or you can schedule exports to occur daily or weekly. If filtering has been applied on the **Measurements Report** page, only filtered data is exported.

During data export, the system automatically creates a CSV file of the filtered data. The file will be available in the file management area until you manually delete it, or until the file is transferred to an alternate location using the Export server feature. For more information about using **Export Server**, see [#unique_80](#).



Note:

The maximum number of columns displayed in the Measurement report GUI is limited to 150 columns. Export the report to view all columns.

Use this procedure to save a measurements report to the file management storage area. Use this procedure to schedule a data export task.

1. Select **Measurements**, and then **Report**.

The **Measurements Report** page appears. For a description of each field, see [Measurement Elements](#).

2. Generate a measurements report.

For information about how to generate a measurements report, see [Generating a Measurements Report](#).

3. Click to select the scope or sub-scope measurement report that you want to export.

4. Click **Export**.

The measurement report is exported to a CSV file. Click the link at the top of the page to go directly to the **Status & Manage**, and then **Files** page. From the **Status & Manage** page, you can view a list of files available for download, including the measurements report you exported during this procedure. The **Schedule Measurement Log Data Export** page appears.

5. Check the **Report Groups** boxes corresponding to any additional measurement reports to be exported.



Note:

This step is optional, but is available to allow the export of multiple measurement group reports simultaneously.

6. Select the **Export Frequency**.

 **Note:**

If the selected **Export Frequency** is **Fifteen Minutes** or **Hourly**, specify the **Minutes**.

7. Enter the **Task Name**.

For more information about Task Name, or any field on this page, see [Measurements Data Export Elements](#).

 **Note:**

Task Name is not an option if **Export Frequency** equals **Once**.

8. Select the **Time of Day**.

 **Note:**

Time of Day is only an option if **Export Frequency** equals **Daily** or **Weekly**.

9. Select the **Day of Week**.

 **Note:**

Day of Week is only an option if **Export Frequency** equals **Weekly**.

10. Click **OK** or **Apply** to initiate the data export task.

The data export task is scheduled. From the **Status & Manage**, and then **Tasks** page, you can view a list of files available for download, including the file you exported during this procedure.

Scheduled tasks can be viewed, edited, and deleted, and reports of scheduled tasks can be generated from **Status & Manage**, and then **Tasks**. For more information see:

- [#unique_81](#)
- [#unique_82](#)
- [#unique_83](#)

 **Note:**

The time it takes to generate a single report is based on these factors:

- Number of MPs
- Number of records, for example, data size
- Number of measurement groups/subgroups in a report
- Overall CPU use on the NOAM/SOAM while generating a report
- Number of reports selected
- Frequency of report generation

3.2 Address Resolution Exception measurements

The Address Resolution Exception measurement group is a set of measurements that provide information about exceptions and unexpected messages and events that are specific to the RBAR application.

3.2.1 RxRbarDecodeFailureResol

Measurement ID

10309

Measurement Group

Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Request messages rejected due to a message decoding error.

Collection Interval

5 min

Peg Condition

When RBAR receives a Request message and does not decode an AVP which extends beyond the length of the message indicated by the `Message Length` parameter in the message header.

Measurement Scope

Server Group

Recovery

- While parsing the message, the message content was inconsistent with the Message Length in the message header. These protocol violations can be caused by the originator of the message (identified by the Origin-Host AVP in the message) or the peer who forwarded the message to this node.

3.2.2 RxRbarInvalidImsiMcc

Measurement ID

10352

Measurement Group

Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of times an AVP instance present in Diameter request message is rejected due to the MCC contained in the decoded IMSI falls within one of the configured Reserved MCC Ranges.

Collection Interval

5 min

Peg Condition

Each time Diameter request message is rejected due to the MCC contained in the decoded IMSI falls within one of the configured Reserved MCC Ranges.

Measurement Scope

Server Group

Recovery

1. Validate the ranges configured in the Reserved MCC Ranges table.
2. Verify that the MCC portion of the decodable IMSI received by RBAR do not fall within the configured Reserved MCC Ranges.
3. If the problem persists, it is recommended to contact [#unique_87](#).

3.2.3 RxRbarNgnPsDrop

Measurement ID

10356

Measurement Group

Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of NGN-PS Diameter messages dropped by RBAR.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time an NGN-PS Diameter message is dropped due to these conditions:

- Address resolution is unsuccessful and the configured action is abandon
- Event sending failure to DRL

Measurement Scope

Server Group

Recovery

- No action required.

3.2.4 RxRbarResolFailAll

Measurement ID

10330

Measurement Group

Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Request messages received which did not resolve to a provisioned address or address range.

Collection Interval

5 min

Peg Condition

When RBAR receives a Request message and, using the provisioned individual addresses or address ranges, does not successfully resolve to a Destination.

Measurement Scope

Server Group

Recovery

- An individual address or address range associated with the Application ID, Command Code and Routing Entity Type may be missing from the RBAR configuration. Validate which address and address range tables are associated with the Application ID, Command Code and Routing Entity Type. View the currently provisioned Application IDs, Command Codes, and Routing Entity Types by selecting **RBAR**, and then **Configuration**, and then **Address Resolutions**.

3.2.5 RxRbarResolFailCmdcode

Measurement ID

10331

Measurement Group

Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Request messages received with an unknown Command Code.

Collection Interval

5 min

Peg Condition

When RBAR receives a Request message and, after attempting to validate the ordered pair (Application ID and Command Code), the Command Code is unknown. RBAR invokes the routing exception handling procedure assigned to this Application ID and Routing Exception Type.

Measurement Scope

Server Group

Recovery

- The order pair (Application ID and Command Code) is not provisioned in the Address Resolutions routing configuration. View the currently provisioned Application IDs and Command Codes by selecting **RBAR**, and then **Configuration**, and then **Address Resolutions**.

3.2.6 RxRbarResolFailDbFail

Measurement ID

10341

Measurement Group

Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of routing attempt failures due to internal database inconsistency failure.

Collection Interval

5 min

Peg Condition

When RBAR receives a Request message and encounters a run-time database inconsistency.

Measurement Scope

Server Group

Recovery

- If this problem occurs, it is recommended to contact [My Oracle Support](#).

3.2.7 RxRbarResolFailImpiMatch

Measurement ID

10336

Measurement Group

Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Request messages received with a valid IMPI that did not match a provisioned address or address range.

Collection Interval

5 min

Peg Condition

When RBAR receives a Request message with a Routing Entity type of IMPI and, using the provisioned individual addresses or address ranges, does not successfully resolve to a Destination.

Measurement Scope

Server Group

Recovery

1. An individual address or address range associated with the Application ID, Command Code and Routing Entity Type may be missing from the RBAR configuration. Validate which address and address range tables are associated with the Application ID, Command Code and Routing Entity Type.
2. View the currently provisioned Application IDs, Command Codes, and Routing Entity Types by selecting **RBAR**, and then **Configuration**, and then **Address Resolutions**.

3.2.8 RxRbarResolFailImpuMatch

Measurement ID

10337

Measurement Group

Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Request messages received with a valid IMPU that did not match a provisioned address or address range.

Collection Interval

5 min

Peg Condition

When RBAR receives a Request message with a Routing Entity type of IMPU and, using the provisioned individual addresses or address ranges, does not successfully resolve to a Destination.

Measurement Scope

Server Group

Recovery

1. An individual address or address range associated with the Application ID, Command Code and Routing Entity Type may be missing from the RBAR configuration. Validate which address and address range tables are associated with the Application ID, Command Code and Routing Entity Type.
2. View the currently provisioned Application IDs, Command Codes, and Routing Entity Types by selecting **RBAR**, and then **Configuration**, and then **Address Resolutions**.

3.2.9 RxRbarResolFailImsiMatch

Measurement ID

10334

Measurement Group

Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Request messages received with a valid IMSI that did not match a provisioned address or address range.

Collection Interval

5 min

Peg Condition

When RBAR receives a Request message with a Routing Entity type of IMSI and, using the provisioned individual addresses or address ranges, does not successfully resolve to a Destination.

Measurement Scope

Server Group

Recovery

1. An individual address or address range associated with the Application ID, Command Code and Routing Entity Type may be missing from the RBAR configuration. Validate which address and address range tables are associated with the Application ID, Command Code and Routing Entity Type.
2. View the currently provisioned Application IDs, Command Codes, and Routing Entity Types by selecting **RBAR**, and then **Configuration**, and then **Address Resolutions**.

3.2.10 RxRbarResolFailIpv4Match

Measurement ID

10338

Measurement Group

Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Request messages received with an IPv4 Address that did not match a provisioned address or address range

Collection Interval

5 min

Peg Condition

When RBAR receives a Request message with a Routing Entity type of IPv4 Address and, using the provisioned individual addresses or address ranges, does not successfully resolve to a Destination.

Measurement Scope

Server Group

Recovery

1. An individual address or address range associated with the Application ID, Command Code and Routing Entity Type may be missing from the RBAR configuration. Validate which address and address range tables are associated with the Application ID, Command Code and Routing Entity Type.
2. View the currently provisioned Application IDs, Command Codes, and Routing Entity Types by selecting **RBAR**, and then **Configuration**, and then **Address Resolutions**.

3.2.11 RxRbarResolFailIpv6prefixMatch

Measurement ID
10339

Measurement Group
Address Resolution Exception

Measurement Type
Simple

Measurement Dimension
Arrayed (by Diameter Application ID)

Description
Number of Request messages received with an IPv6-Prefix Address that did not match a provisioned address or address range

Collection Interval
5 min

Peg Condition
When RBAR receives a Request message with a Routing Entity type of IPv6-Prefix Address and, using the provisioned individual addresses or address ranges, does not successfully resolve to a Destination.

Measurement Scope
Server Group

Recovery

1. An individual address or address range associated with the Application ID, Command Code and Routing Entity Type may be missing from the RBAR configuration. Validate which address and address range tables are associated with the Application ID, Command Code and Routing Entity Type.
2. View the currently provisioned Application IDs, Command Codes, and Routing Entity Types by selecting **RBAR**, and then **Configuration**, and then **Address Resolutions**.

3.2.12 RxRbarResolFailMsisdnMatch

Measurement ID
10335

Measurement Group
Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Request messages received with a valid MSISDN that did not match a provisioned address or address range

Collection Interval

5 min

Peg Condition

When RBAR receives a Request message with a Routing Entity type of MSISDN and, using the provisioned individual addresses or address ranges, does not successfully resolve to a Destination.

Measurement Scope

Server Group

Recovery

1. An individual address or address range associated with the Application ID, Command Code and Routing Entity Type may be missing from the RBAR configuration. Validate which address and address range tables are associated with the Application ID, Command Code and Routing Entity Type.
2. View the currently provisioned Application IDs, Command Codes, and Routing Entity Types by selecting **RBAR**, and then **Configuration**, and then **Address Resolutions**.

3.2.13 RxRbarResolFailNoAddrAvps

Measurement ID

10332

Measurement Group

Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Request messages received without a Routing Entity Address AVP.

Collection Interval

5 min

Peg Condition

When RBAR receives a Request message, with the number of AVPs searched—as defined by measurement RxRbarAvgAddrAvps for the message—as 0 and hence, a

valid Routing Entity address cannot be found using any of the Routing Entity Types assigned to the ordered pair (Application ID and Command Code).

Measurement Scope

Server Group

Recovery

1. This may be a normal event or an event associated with misprovisioned address resolution configuration. If this event is considered abnormal, validate which AVPs are configured for routing with the Application ID and Command Code.
2. View the currently provisioned Application IDs and Command Codes by selecting **RBAR**, and then **Configuration**, and then **Address Resolutions**.

3.2.14 RxRbarResolFailNoValidAddr

Measurement ID

10333

Measurement Group

Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Request messages received with at least Routing Entity Address AVP but no valid Routing Entity Addresses were found.

Collection Interval

5 min

Peg Condition

When RBAR receives a Request message, with the number of AVPs searched—as defined by measurement RxRbarAvgAddrAvps for the message—as > 0 but, a valid Routing Entity address cannot be found using any of the Routing Entity Types assigned to the ordered pair (Application ID and Command Code).

Measurement Scope

Server Group

Recovery

1. This may be a normal event or an event associated with misprovisioned address resolution configuration. If this event is considered abnormal, validate which AVPs are configured for routing with the Application ID and Command Code.
2. View the currently provisioned Application IDs and Command Codes by selecting **RBAR**, and then **Configuration**, and then **Address Resolutions**.

3.2.15 RxRbarResolFailUnsigned16Match

Measurement ID

10343

Measurement Group

Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Request messages received with an UNSIGNED16 value that did not match a provisioned address or address range.

Collection Interval

5 min

Peg Condition

When RBAR receives a Request message with a Routing Entity type of UNSIGNED16 and, using the provisioned individual addresses or address ranges, does not successfully resolve to a Destination.

Measurement Scope

Server Group

Recovery

1. An individual address or address range associated with the Application ID, Command Code and Routing Entity Type may be missing from the RBAR configuration. Validate which address and address range tables are associated with the Application ID, Command Code and Routing Entity Type.
2. View the currently provisioned Application IDs, Command Codes, and Routing Entity Types by selecting **RBAR**, and then **Configuration**, and then **Address Resolutions**.

3.2.16 RxRbarTransactionsRejected

Measurement ID

10354

Measurement Group

Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of transactions rejected by RBAR.

Collection Interval

5 min

Peg Condition

Each time the RBAR application sends an answer response with Result-Code/Experimental-Code or abandons an ingress request message.

Measurement Scope

Server Group

Recovery

1. When non-zero, examine other failure measurements ([TxRbarAbandonRequest](#), [RxRbarInvalidImsiMcc](#), [RxRbarResolFailUnsigned16Match](#), [RxRbarResolFailImpuMatch](#), [RxRbarResolFailImpiMatch](#), [RxRbarResolFailMsisdnMatch](#), [RxRbarResolFailImsiMatch](#), [RxRbarResolFailNoAddrAvps](#), [RxRbarResolFailCmdcode](#), [RxRbarResolFailAll](#), [RxRbarDecodeFailureResol](#), [RxRbarUnkApplId](#)) to isolate reasons for failures.
2. If the problem persists, it is recommended to contact [My Oracle Support](#).

3.2.17 RxRbarUnkApplId

Measurement ID

10308

Measurement Group

Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Request messages rejected due to an unknown Application ID.

 **Note:**

The DSR Relay Agent forwarded a Request message to the address resolution application which contained an unrecognized Diameter Application ID in the header. Either a DSR Relay Agent application routing rule is misprovisioned or the Application ID is not provisioned in the RBAR routing configuration.

Collection Interval

5 min

Peg Condition

When a Request message received and the Application ID is not present in the RBAR configuration.

Measurement Scope

Server Group

Recovery

1. View the currently provisioned Diameter Application IDs by selecting **RBAR**, and then **Configuration**, and then **Applications**.
2. View the currently provisioned Application Routing Rules by selecting **Diameter**, and then **Configuration**, and then **Application Routing Rules**.

3.2.18 TxRbarAbandonRequest

Measurement ID

10353

Measurement Group

Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Request messages that are abandoned

Collection Interval

5 min

Peg Condition

Each time the Routing Exception `Abandon Request` is invoked

Measurement Scope

Server Group

Recovery

- No action required.

3.3 Address Resolution Performance measurements

The Address Resolution Performance measurement group is a set of measurements that provide performance information that is specific to a RBAR application. These measurements allow you to determine how many messages are successfully forwarded and received to/from each RBAR application.

3.3.1 RxRbarAvgMsgSize

Measurement ID

10323

Measurement Group

Address Resolution Performance

Measurement Type

Average

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Average size of Request message received.

Collection Interval

5 min

Peg Condition

Average calculated for each Request message received as defined by measurement

[RxRbarMsgs](#).

Measurement Scope

Server Group

Recovery

- No action required.

3.3.2 RxRbarMsgs

Measurement ID

10310

Measurement Group

Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Request messages received by RBAR.

Collection Interval

5 min

Peg Condition

When RBAR receives a Request message and determines that the Application ID in the message header is defined in the routing configuration and valid.

Measurement Scope

Server Group

Recovery

- No action required.

3.3.3 RxRbarNgnPs

Measurement ID

10355

Measurement Group

Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of NGN-PS Diameter messages received by RBAR.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time an NGN-PS Diameter message is received.

Measurement Scope

Server Group

Recovery

- No action required.

3.3.4 RxRbarResolAll

Measurement ID

10311

Measurement Group

Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Addresses Successful Resolved to a Destination.

Collection Interval

5 min

Peg Condition

When RBAR receives a Request message and successfully resolves its Application ID, Command Code and Routing Entity to a Destination and forwards the message to the DSR Relay Agent.

Measurement Scope

Server Group

Recovery

- No action required.

3.3.5 RxRbarResolAllMp

Measurement ID

10351

Measurement Group

Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Addresses Successful Resolved to a Destination by the MP.

Collection Interval

5 min

Peg Condition

When RBAR receives a Request message and successfully resolves its Application ID, Command Code and Routing Entity to a Destination.

Measurement Scope

Server Group

Recovery

- No action required.

3.3.6 RxRbarResolImpi

Measurement ID

10315

Measurement Group

Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Addresses Successful Resolved with Routing Entity type IMPI.

Collection Interval

5 min

Peg Condition

When RBAR receives a Request message with a Routing Entity type of IMPI and successfully resolves its Application ID, Command Code and Routing Entity to a Destination and forwards the message to the DSR **Relay Agent**.

Measurement Scope

Server Group

Recovery

- No action required.

3.3.7 RxRbarResolImpu

Measurement ID

10316

Measurement Group

Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Addresses Successful Resolved with Routing Entity type IMPU.

Collection Interval

5 min

Peg Condition

When RBAR receives a Request message with a Routing Entity type of IMPU and successfully resolves its Application ID, Command Code and Routing Entity to a Destination and forwards the message to the DSR **Relay Agent**.

Measurement Scope

Server Group

Recovery

- No action required.

3.3.8 RxRbarResolImsi

Measurement ID

10313

Measurement Group

Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Addresses Successful Resolved with Routing Entity type IMSI.

Collection Interval

5 min

Peg Condition

When RBAR receives a Request message with a Routing Entity type of IMSI and successfully resolves its Application ID, Command Code and Routing Entity to a Destination and forwards the message to the DSR **Relay Agent**.

Measurement Scope

Server Group

Recovery

- No action required.

3.3.9 RxRbarResolIipv4

Measurement ID

10317

Measurement Group

Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Addresses Successful Resolved with Routing Entity type IPv4 Address.

Collection Interval

5 min

Peg Condition

When RBAR receives a Request message with a Routing Entity type of IPv4 Address and successfully resolves its Application ID, Command Code and Routing Entity to a Destination and forwards the message to the DSR **Relay Agent**.

Measurement Scope

Server Group

Recovery

- No action required.

3.3.10 RxRbarResollpv6prefix

Measurement ID

10318

Measurement Group

Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Addresses Successful Resolved with Routing Entity type IPv6-Prefix Address.

Collection Interval

5 min

Peg Condition

When RBAR receives a Request message with a Routing Entity type of IPv6-Prefix Address and successfully resolves its Application ID, Command Code and Routing Entity to a Destination and forwards the message to the DSR **Relay Agent**.

Measurement Scope

Server Group

Recovery

- No action required.

3.3.11 RxRbarResolMsisdn

Measurement ID

10314

Measurement Group

Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Addresses Successful Resolved with Routing Entity type MSISDN.

Collection Interval

5 min

Peg Condition

When RBAR receives a Request message with a Routing Entity type of MSISDN and successfully resolves its Application ID, Command Code and Routing Entity to a Destination and forwards the message to the DSR **Relay Agent**.

Measurement Scope

Server Group

Recovery

- No action required.

3.3.12 RxRbarResolRateAvg

Measurement ID

10306

Measurement Group

Address Resolution Performance

Measurement Type

Average

Measurement Dimension

Single

Description

Average Addresses Successfully Resolved per second.

Collection Interval

5 min

Peg Condition

The average per second is periodically calculated based on the total number of addresses successfully resolved as defined by measurement [RxRbarResolAllMp](#).

Measurement Scope

Server Group

Recovery

- No action required.

3.3.13 RxRbarResolRatePeak

Measurement ID

10307

Measurement Group

Address Resolution Performance

Measurement Type

Max

Measurement Dimension

Single

Description

Peak Addresses Successfully Resolved per second

Collection Interval

5 min

Peg Condition

At the end of each sample period associated with average successfully resolved message rate, as defined by measurement [RxRbarResolRateAvg](#), if the value exceeds the current value for this measurement, then the measurement will be updated with the current sample periods value.

Measurement Scope

Server Group

Recovery

- No action required.

3.3.14 RxRbarResolSingleAddr

Measurement ID

10312

Measurement Group

Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Addresses Successful Resolved with an Individual Address.

Collection Interval

5 min

Peg Condition

When RBAR receives a Request message and uses the Address Exceptions to successfully resolve its Application ID, Command Code and Routing Entity to a Destination and forwards the message to the DSR **Relay Agent**.

Measurement Scope

Server Group

Recovery

- No action required.

3.3.15 RxRbarResolUnsigned16

Measurement ID

10342

Measurement Group

Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Addresses Successful Resolved with Routing Entity type UNSIGNED16.

Collection Interval

5 min

Peg Condition

When RBAR receives a Request message with a Routing Entity type of UNSIGNED16 and successfully resolves its Application ID, Command Code and Routing Entity to a Destination and forwards the message to the DSR **Relay Agent**.

Measurement Scope

Server Group

Recovery

- No action required.

3.3.16 TxRbarFwdDefaultDest

Measurement ID

10321

Measurement Group

Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Request message forwarding attempts using a Default Destination.

Collection Interval

5 min

Peg Condition

Each time the Routing Exception Forward route the message with a user-configurable Default Destination is invoked.

Measurement Scope

Server Group

Recovery

- No action required

3.3.17 TxRbarFwdNochange

Measurement ID

10320

Measurement Group

Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Request message forwarding attempts without changing the message.

Collection Interval

5 min

Peg Condition

Each time the Routing Exception Forward route the message unchanged is invoked.

Measurement Scope

Server Group

Recovery

- No action required.

3.3.18 TxRbarFwdSuccess

Measurement ID

10322

Measurement Group

Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Request messages successfully forwarded (all reasons).

Collection Interval

5 min

Peg Condition

Each time the application successfully enqueues a Request message on the DSR **Relay Agent's** Request Message Queue.

Measurement Scope

Server Group

Recovery

- If this value is less than measurement [TxRbarMsgAttempt](#), then an internal resource error is occurring. It is recommended to contact [#unique_87](#). if needed.

3.3.19 TxRbarMsgAttempt

Measurement ID

10319

Measurement Group

Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Request message forwarding attempts (all reasons).

Collection Interval

5 min

Peg Condition

Each time the application attempts to enqueue a Request message on the DSR **Relay Agent's** Request Message Queue.

Measurement Scope

Server Group

Recovery

- No action required.

3.4 Application Routing Rules measurements

The Application Routing Rules measurement group is a set of measurements associated with the usage of Application Routing Rules. These measurements will allow the user to determine which Application Routing Rules are most commonly used and the percentage of times that messages were successfully (or unsuccessfully) routed.

3.4.1 RxApplRuleSelected

Measurement ID

10085

Measurement Group

Application Routing Rules

Measurement Type

Simple

Measurement Dimension

Arrayed (by Application Routing Rule ID)

Description

Number of times that the application routing rule was selected for routing a Request message.

Collection Interval

5 min

Peg Condition

When DRL selects an application routing rule for routing a message.

Measurement Scope

Server Group

Recovery

- No action required.

3.4.2 RxApplRuleFwdFailAll

Measurement ID

10086

Measurement Group

Application Routing Rules

Measurement Type

Simple

Measurement Dimension

Arrayed (by Application Routing Rule ID)

Description

Number of times that the application routing rule was selected for routing a Request message and the message was not successfully routed for any reason.

Collection Interval

5 min

Peg Condition

When DRL selects an application routing rule to route a Request message and one of the following conditions is met:

- The DSR Application's Operational Status is "Unavailable".
- The DSR Application's Operational Status is not "Unavailable" but the attempt to enqueue the message to the DSR Application failed.

Measurement Scope

Server Group

Recovery

- No action required.

3.4.3 RxApplRuleFwdFailUnavail

Measurement ID

10087

Measurement Group

Application Routing Rules

Measurement Type

Simple

Measurement Dimension

Arrayed (by Application Routing Rule ID)

Description

Number of times that the application routing rule was selected for routing a Request message and the message was not successfully routed because DSR Application's Operational Status was "Unavailable".

Collection Interval

5 min

Peg Condition

When DRL selects an application routing rule to route a Request message and the DSR Application's Operational Status is "Unavailable".

Measurement Scope

Server Group

Recovery

- No action required.

3.4.4 RxApplRuleDuplicatePriority

Measurement ID

10088

Measurement Group

Application Routing Rules

Measurement Type

Simple

Measurement Dimension

Arrayed (by Application Routing Rule ID)

Description

Number of times that the application routing rule was selected for routing a message but another application routing rule had the same priority and was ignored.

Collection Interval

5 min

Peg Condition

When DRL searches the ART and finds more than one highest priority application routing rule with the same priority that matches the search criteria. The measurement is associated with the application routing rule that is selected for routing.

Measurement Scope

Server Group

Recovery

- Use GUI screen: **Main Menu**, and then **Diameter**, and then **Configuration**, and then **Application Routing Rules** to modify peer routing rule priorities.

At least two application routing rules with the same priority matched an ingress Request message. The system selected the first application routing rule found. Application routing rules must be unique for the same type of messages to avoid unexpected routing results.

3.4.5 RxArtSelected

Measurement ID

10074

Measurement Group

Application Routing Rules

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of times that an application routing rule from ART-X was selected for routing a Request message

Collection Interval

5 min

Peg Condition

When DRL selects an application routing rule from ART-X for routing a message

Measurement Scope

Server Group

Recovery

- No action required.

3.5 Association Exception measurements

The Association Exception measurement report contains measurements that provide information that is specific to associations configured for the MP server.

3.5.1 RxAsnFarEndClose

Measurement ID

9128

Measurement Group

Association Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

Number of times the far end closed the **SCTP** connection

Collection Interval

30 min

Peg Condition

This measurement is incremented by one each time the far-end of the association closes the association by sending either SHUTDOWN or ABORT.

Measurement Scope

NE, Server

Recovery

1. If the closing of the association was expected, no further action is necessary, the association will be recovered as soon as the far-end is ready to connect again. If the closing of the association was not expected. You can view Association status from the GUI main menu under **SS7/Sigtran**, and then **Maintenance**, and then **Associations**.

2. Look in the event history from the GUI main menu under **Alarms & Events**, and then **View History** for Event ID 19224 to determine exactly when the far-end closed the association.
3. Look for other events for the association or MP server in the event history.
4. Verify that IP connectivity still exists between the MP server and the SG.
5. Verify whether the far-end of the association is undergoing maintenance.
6. It is recommended to contact [#unique_131](#) for assistance if needed.

3.5.2 EvAsnManClose

Measurement ID

9129

Measurement Group

Association Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (per association)

Description

The number of times the association was manually closed. This includes manual changes of the association administrative state that cause the association to transition from ASP-UP to either ASP-DOWN or **Disabled**.

Collection Interval

30 min

Peg Condition

This measurement is incremented by one each time a manual change is made to the association administrative state from **Enabled** to **Blocked** or from **Enabled** to **Disabled**, causing the association to transition out of ASP-UP protocol state.

Measurement Scope

NE, Server

Recovery

1. If the association is known to be under maintenance no further action is necessary. If the association was not known to be under maintenance, you can view the Association status from the GUI main menu under **SS7/Sigtran**, and then **Maintenance**, and then **Associations**.
2. View the event history from the GUI main menu under **Alarms & Events**, and then **View History** and look for Event ID 19228. Event ID 19228 shows the manual association state transitions and contains a time-stamp of when the change occurred.
3. View the security logs from the GUI main menu under **Security**, and then **Logs**. You can search the logs using the time-stamp from the event history log to determine which login performed the manual state change on the association.
4. It is recommended to contact [#unique_131](#) for assistance if needed.

3.5.3 EvAsnNoRespClose

Measurement ID

9130

Measurement Group

Association Exception

Measurement Type

Simple

Measurement Dimension

Description

The number of times the association was closed due to lack of response from the far end. This includes lack of response to any signaling sent on the association or to SCTP heartbeating if enabled.

Collection Interval

30 min

Peg Condition

This measurement is incremented by one each time an established SCTP association is closed by the MP server due to lack of response at the SCTP level from the far-end of the association.

Measurement Scope

NE, Server

Recovery

1. This measurement should have a zero value. If it has a non-zero value, the association has been closed due to the lack of response from the far-end. The MP server will begin periodic attempts to reconnect to the Signaling Gateway. You can view the Association status from the GUI main menu under **SS7/Sigtran**, and then **Maintenance**, and then **Associations**.
2. Look in the event history from the GUI main menu under **Alarms & Events**, and then **View History** for Event ID 19225.
3. Verify IP connectivity between the MP server and the Signaling Gateway.
4. Determine if the far-end of the association is congested, possibly causing slow response times on the association.
5. Check the IP network between the MP server and the Signaling Gateway for excessive retransmissions.
6. It is recommended to contact [#unique_131](#) for assistance if needed.

3.5.4 EvTrCnxFail

Measurement ID

9404

Measurement Group
Association Exception

Measurement Type
Simple

Measurement Dimension
Arrayed (per Transport)

Description
The number of times the SCTP connection attempt failed on the association. This includes only unsuccessful attempts to connect to the Signaling Gateway. It does not include failure of established connections.

Collection Interval
30 min

Peg Condition
This measurement is incremented by one each time an SCTP connect attempt fails.

Measurement Scope
NE, Server

Recovery

1. This measurement should have a zero value. A non-zero value indicates that the MP server has attempted to connect to the Signaling Gateway at least once and failed to establish the SCTP connection. You can view Association status from the GUI main menu under **SS7/Sigtran**, and then **Maintenance**, and then **Associations**.
2. Check the event history log from the GUI main menu under **Alarms & Events**, and then **View History**, looking for Event ID 19222. Event ID 19222 provides details about the cause of the failure.
3. Verify that the Adjacent server that represents the far-end of the association is configured with the correct IP address. You can view the Adjacent servers from the GUI main menu under **SS7/Sigtran**, and then **Configuration**, and then **Adjacent Servers**.
4. Verify that the remote port configured for the association correctly identifies the port that the Signaling Gateway is listening on for SCTP connections. You can view the configured port from the GUI main menu under **SS7/Sigtran**, and then **Configuration**, and then **Associations**, and then **Configure**.
5. Verify the IP network connectivity between the MP server and the Signaling Gateway.
6. If the Signaling Gateway must be configured to connect to the MP server's IP address and port, verify that the signaling gateway configuration matches the association configuration. You can view association data from the GUI main menu under **SS7/Sigtran**, and then **Configuration**, and then **Associations**, and then **Configure**.
7. It is recommended to contact [#unique_131](#) for assistance if needed.

3.5.5 TxAsnSendFail

Measurement ID

9133

Measurement Group

Association Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The number of times the SCTP Send failed for non-DATA M3UA signaling on the association. The number includes the sending of any non-DATA messages on an established association.

Collection Interval

30 min

Peg Condition

This measurement is incremented by one each time an attempt to send M3UA signaling fails for any reason and the information being sent cannot be mapped to a specific link

Measurement Scope

NE, Server

Recovery

1. This measurement should have a zero value. A non-zero value indicates that an attempt to send a message to the far-end on this association using SCTP has failed. Normally this happens if the far-end cannot keep up with the rate of messages being sent from all links on the association. You can view Association status from the GUI main menu under **SS7/Sigtran**, and then **Maintenance**, and then **Associations**.
2. Look in the GUI main menu under **Alarms & Events**, and then **View History** in the event history log for Event ID 19233 - Failed to send non-DATA message. Refer to the *DSR Alarms and KPIs Reference* for details about this event and the cause of the failure to send.
3. Verify that the IP network between the MP server and the SG is functioning as expected.
4. It is recommended to contact [#unique_131](#) for assistance if needed.

3.5.6 RxAsnRecvFailed

Measurement ID

9134

Measurement Group

Association Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The number of times an SCTP/UDP receive attempt failed on the transport. Failure to receive message via SCTP may result in a message being discarded.

Collection Interval

30 min

Peg Condition

This measurement is incremented by one each time an SCTP receive fails when the far-end attempted to send data, but the data cannot be received due to an invalid message length.

Measurement Scope

NE, Server

Recovery

1. This measurement should have a zero value. A non-zero value indicates that the far-end is sending data that is malformed. You can view Association status from the GUI main menu under **SS7/Sigtran**, and then **Maintenance**, and then **Associations**.
2. Look in the event history log from the GUI main menu under **Alarms & Events**, and then **View History** for Event ID 19223. Event ID 19223 gives more information about what caused the failure.
3. Try to bring the sockets back into alignment by manually **Disabling** and **Enabling** the association.
4. It is recommended to contact [#unique_131](#) for assistance if needed.

3.5.7 EvTrSockInitFail

Measurement ID

9407

Measurement Group

Transport Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (per Transport)

Description

The number of times the socket initialization failed. Socket initialization includes configuring the association according to the settings in the GUI under **SS7/Sigtran**, and then **Configuration**, and then **Associations**, and then **Configuration Sets**.

Collection Interval

30 min

Peg Condition

This measurement is incremented by one each time one or more socket options cannot be set according to the settings in the association's configuration set.

Measurement Scope

NE, Server

Recovery

1. This measurement should have a zero value. A non-zero value indicates a problem with the association setup prior to attempting to connect the association. If this occurs, look for Event ID 19221 in the GUI under **Alarms & Events**, and then **View History**. Event 19221 provides details about the configuration failure.
2. It is recommended to contact [#unique_131](#) for further assistance.

3.5.8 RxAsnM3uaERROR

Measurement ID

9140

Measurement Group

Association Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The number of M3UA ERROR messages received on the association. An M3UA ERROR message is sent by the far-end to complain about an invalid M3UA message that it received.

Collection Interval

30 min

Peg Condition

This measurement is incremented by one each time an M3UA ERROR message is received that cannot be mapped to a specific link.

Measurement Scope

NE, Server

Recovery

1. This measurement will have a value of zero. A non-zero value indicates a problem with M3UA signaling sent by the MP server.
2. Look for Event ID 19235 from the GUI main menu under **Alarms & Events**, and then **View History**. Event ID19235 provides more information about the receipt of the ERROR message.
3. If the ERROR reason in Event ID 19235 indicates a problem with the routing context (i.e., error code 0x19), verify that the MP server link set and the SG are configured to agree on the routing context values that each M3UA signaling link uses.

4. It is recommended to contact [#unique_131](#) for assistance if needed.

3.5.9 EvAsnUpAckTO

Measurement ID

9141

Measurement Group

Association Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (per association)

Description

The number of times the association timed out waiting for ASP-UP-ACK. ASP-UP-ACK is sent by the far-end in response to an ASP-UP message during the association start-up (when the association is in the **Enabled** administrative state).

Collection Interval

30 min

Peg Condition

This measurement is incremented by one each time an ASP-UP has been sent and the M3UA State Management ACK Timer expires, but no ASP-UP-ACK has been received for the association.

Measurement Scope

NE, Server

Recovery

1. This measurement should have a zero value. If the value is not zero, the association cannot be brought into the state necessary for M3UA ASPTM traffic because the far-end of the association is not responding by sending an ASP-UP-ACK prior to the timeout defined in the GUI under **SS7/Sigtran**, and then **Configuration**, and then **Options**, and then **M3UA**. The field that defines the timeout is the **State Management ACK Timer**.
2. You can view Association status from the GUI main menu under **SS7/Sigtran**, and then **Maintenance**, and then **Associations**.
3. Check the event history from the GUI main menu under **Alarms & Events**, and then **View History**, looking for Event ID 19226. Event ID 19226 will show when the timeout occurred.
4. Verify that the far-end of the association on the SG is not undergoing maintenance.
5. Verify that the **State Management ACK Timer** value is not set too short. This should not occur if the IP network is functioning correctly.
6. Verify that the IP network between the MP server and the SG is performing up to expectations.
7. It is recommended to contact [#unique_131](#) for assistance if needed.

3.5.10 RxAsnUnsolDownAck

Measurement ID

9142

Measurement Group

Association Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The number of unsolicited M3UA **ASP-DOWN-ACK** messages received on the association. Unsolicited **ASP-DOWN-ACK** messages can be sent by the **SG** to indicate that the SG cannot process traffic on the association.

Collection Interval

30 min

Peg Condition

This measurement is incremented by one each time an unsolicited ASP-DOWN-ACK is received on the association.

Measurement Scope

NE, Server

Recovery

1. This measurement should have a zero value. A non-zero value means that the far-end of the association has stopped processing M3UA signaling. You can view Association status from the GUI main menu under **SS7/Sigtran**, and then **Maintenance**, and then **Associations**.
2. Check the event history from the GUI main menu under **Alarms & Events**, and then **View History**, looking for Event ID 19227. **Event ID 19227** will show exactly when the unsolicited ASP-DOWN-ACK was received.
3. Verify whether the far-end of the association is undergoing maintenance.
4. It is recommended to contact [#unique_131](#) for assistance if needed.

3.5.11 RxAsnInvalidM3ua

Measurement ID

9143

Measurement Group

Association Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The number invalid M3UA messages received on this association. An invalid M3UA message is a message that violates the M3UA protocol.

Collection Interval

30 min

Peg Condition

This measurement is incremented by one each time an M3UA message is received on the association that is invalid due to any syntactic or semantic reason.

Measurement Scope

NE, Server

Recovery

1. This measurement should have a zero value. In case of a non-zero value in this measurement, review the event history from the GUI main menu under **Alarms & Events**, and then **View History**, looking for Event 19231.
2. Event 19231 provides details about the reason for rejecting the M3UA message. If the error reason indicates a problem with routing context, verify that the routing context used for the association specified in Event 19231 is configured to match between the ASP and the SG.
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.5.12 TmSingleTransQueueFull

Measurement ID

9415

Measurement Group

Transport Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The number of egress messages that were discarded because the single Transport Writer Queue was full.

Collection Interval

30 min

Peg Condition

Check whether the single peers transmit data queue limit has reached its max limit (1000). If maximum limit is reached or exceeded, then peg the measurement and discard the low priority events.

Measurement Scope

NE, Server

Recovery

- This measurement indicates that the Transport is backed up and messages might be discarded. If the value is above the defined critical threshold, an alarm (19408) is generated. If the problem persists, it is recommended to contact [#unique_131](#).

3.5.13 EvSctpAdjPToDwn

Measurement ID

9424

Measurement Group

Transport Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (per Transport)

Description

Number of times configured IP Address of an Adjacent Node goes from Available to Unavailable.

Collection Interval

30 min

Peg Condition

This measurement shall be incremented by one each time reachability to a configured IP address of an Adjacent Node is lost, indicating a fault in the path to that address was detected. If all is well, the measurement will have a zero value. A non-zero value indicates that a path fault to that address was detected.

Measurement Scope

NE, Server

Recovery

1. Check the event history log at **Main Menu**, and then **Alarms & Events**, and then **View History**; look for event ID 19410. Event ID 19410 provides more details about the actual cause of the failure.
2. Verify that the Adjacent Node that represents the far-end of the association is configured with the correct IP address at **Main Menu**, and then **Transport Manager**, and then **Configuration**, and then **Adjacent Node**.
3. Verify IP network connectivity between the MP server and the Adjacent Nodes IP address using a ping or traceroute command.
4. If the problem persists, it is recommended to contact [#unique_131](#).

3.5.14 EvSctpTransRej

Measurement ID

9425

Measurement Group

Transport Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (per Transport)

Description

Number of times SCTP Transport has been rejected due to remote IP addresses validation failure based on SCTP Multihoming mode. This is valid only for SCTP Transports.

Collection Interval

30 min

Peg Condition

This measurement shall be incremented by one each time the association has been rejected due to IP address validation in the SCTP INITs/INIT-ACKs transmitted by the Adjacent Node. If all is well, the measurement has a zero value. A non-zero value indicates that an Adjacent Node has attempted to connect to the Peer IP Address at least once, but the connection attempt was rejected because the IP address advertised by the Adjacent Node failed validation.

Measurement Scope

NE, Server

Recovery

1. Check the Transport history at **Main Menu**, and then **Transport Manager**, and then **Maintenance**.
2. Verify IP network connectivity between the MP server and the Adjacent Nodes IP address using a ping or traceroute command.
3. Verify that the SCTP validation mode is the one that is needed.
4. Verify that the Adjacent Node that represents the far-end of the association is configured with the correct IP address at **Main Menu**, and then **Transport Manager**, and then **Configuration**, and then **Adjacent Node**.
5. Verify that the remote port configured at **Main Menu**, and then **Transport Manager**, and then **Configuration**, and then **Transport** for the association correctly identifies the port that the Adjacent Node is listening on for SCTP connections.
6. If the problem persists, it is recommended to contact [#unique_131](#).

3.6 Association Performance measurements

3.6.1 TxTrOctets

Measurement ID

9408

Measurement Group

Association Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (per Transport)

Description

The number of octets sent on the association. This includes **octets** for both DATA and non-DATA M3UA signaling. It does not include SCTP, IP, or **Ethernet** headers.

Collection Interval

30 min

Peg Condition

This measurement is incremented by the number of octets in the message each time a DATA/non-DATA message is successfully sent on the transport.

Measurement Scope

NE, **Server**

Recovery

- No action required.

3.6.2 RxTrOctets

Measurement ID

9409

Measurement Group

Association Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (per Transport)

Description

The number of octets received on the SCTP/UDP Transport. It does not include SCTP, UDP, IP, or Ethernet headers.

Collection Interval

30 min

Peg Condition

This measurement shall be incremented by the number of octets in the message each time a DATA/non-DATA message is successfully received on the transport.

Measurement Scope

NE, Server

Recovery

- No action required.

3.6.3 SCTPAssocQueuePeak

Measurement ID

9169

Measurement Group

Association Performance

Measurement Type

Max

Measurement Dimension

Arrayed

Description

The peak SCTP Single Association Writer Queue utilization (0-100%) measured during the collection interval.

Collection Interval

30 min

Peg Condition

Transport's queue is registered as a Stack Resource. The StackResourceManager thread monitors and updates the maximum Transport Queue utilization sample taken during the collection interval for affected Transport.

Measurement Scope

NE, Server

Recovery

1. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum capacity of an MP over several collection intervals, then the number of MPs in the Network Element might need to be increased.
2. If the peak and average for an individual MP is significantly different than other MPs in the same Network Element, then a MP-specific hardware, software, or configuration problem might exist.
3. See Alarm 19408 - Single Transport Egress-Queue Utilization (refer to the *DSR Alarms and KPIs Reference* for details about this alarm).
4. It is recommended to contact [#unique_131](#) for assistance if needed.

3.6.4 SCTPAssocQueueAvg

Measurement ID

9170

Measurement Group

Association Performance

Measurement Type

Average

Measurement Dimension

Arrayed

Description

The average SCTP Single Association Writer Queue utilization (0-100%) measured during the collection interval.

Collection Interval

30 min

Peg Condition

The average of all SCTP Single Association Writer Queue utilization samples taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. This measurement is a measure of how fast the Transport queue is processed and indicates the Average depth of queue over the monitored interval.
2. It is primarily intended to assist in evaluating the need for additional MP processing capacity at a Network Element.
3. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum capacity of an MP over several collection intervals, then the number of MPs in the Network Element might need to be increased.
4. If the peak and average for an individual MP is significantly different than other MPs in the same Network Element, then a MP-specific hardware, software, or configuration problem might exist.
5. If the problem persists, it is recommended to contact [#unique_131](#).

3.7 Association Usage measurements

3.7.1 EvAsnCnxSuccess

Measurement ID

9131

Measurement Group

Association Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (per association)

Description

The number of times the SCTP connection was successfully established on the association.

Collection Interval

30 min

Peg Condition

This measurement shall be incremented by one each time the SCTP association reaches the ASP-DOWN protocol state (for example, the connection is successfully established).

Measurement Scope

NE, Server

Recovery

1. If the association is expected to have connected during the measurement reporting interval, no action is necessary. Otherwise, preform the following steps:
2. You can view the transport status can be viewed from the GUI main menu under **Transport Manager**, and then **Maintenance**, and then **Transport**.
3. Look in the event history from the GUI main menu under **Alarms & Events**, and then **View History**. Look for events related to the association or the MP server to determine what might have caused the association to fail.
4. It is recommended to contact [#unique_131](#) for assistance if needed.

3.7.2 TmAsnBlkNotDown

Measurement ID

9138

Measurement Group

Association Usage

Measurement Type

Duration

Measurement Dimension

Arrayed (per association)

Description

The number of seconds during the reporting interval during which the association was in the **Blocked** administrative state but was not in ASP-DOWN state. When the association is **Blocked**, the desired protocol state is ASP-DOWN. This measurement

indicates the amount of time during the reporting interval for which the association was not in the desired protocol state.

Collection Interval

30 min

Peg Condition

Time is accumulated for this measurement during the collection interval when all of the following are true:

- The association is in the **Blocked** administrative state.
- The association is not in the ASP-DOWN protocol state.

Measurement Scope

NE, Server

Recovery

1. The value of this measurement should be zero. A non-zero value indicates that the association was set to the **Blocked** administrative state, but was not able to reach the desired protocol state due to some problem. You can view the Association status from the GUI main menu under **SS7/Sigtran**, and then **Maintenance**, and then **Associations**.
2. Verify the Adjacent server that represents the far-end of the association is configured with the correct IP address. You can check the configuration from the GUI main menu under **SS7/Sigtran**, and then **Configuration**, and then **Adjacent Servers**.
3. Verify the remote port configured for the association correctly identifies the port that the SG is listening on for SCTP connections. You can check the configuration from the GUI main menu under **SS7/Sigtran**, and then **Configuration**, and then **Associations**, and then **Configure**.
4. Verify the IP network connectivity between the MP server and the SG.
5. If the SG must be configured to connect to the MP server's IP address and port, verify that the SG configuration matches the association configuration. You can check the configuration from the GUI main menu under **SS7/Sigtran**, and then **Configuration**, and then **Associations**, and then **Configure**.
6. It is recommended to contact [#unique_131](#) for assistance if needed.

3.7.3 TmAsnEnaNotUp

Measurement ID

9139

Measurement Group

Association Usage

Measurement Type

Duration

Measurement Dimension

Arrayed (per association)

Description

The time that the association was enabled, but not in the ASP-UP state

Collection Interval

30 min

Peg Condition

Time shall be accumulated for this measurement during the collection interval when all of the following are true:

- the association is in the Enabled administrative state
- the association is not in the ASP-UP protocol state for any reason

Measurement Scope

NE, Server

Recovery

- No action is required.

3.8 Communication Agent (ComAgent) Exception measurements

The **Communication Agent** Exception measurement group is a set of measurements that provide information about exceptions and unexpected messages and events that are specific to the **Communication Agent** protocol.

3.8.1 CADSTxDscrdCong

Measurement ID

9841

Measurement Group

ComAgent Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of egress stack events discarded because the congestion level of the connection exceeded the stack events' priority level.

Collection Interval

30 min

Peg Condition

When **ComAgent** receives a stack event from a local User Layer to be transferred via the direct service and the selected connection has a congestion level greater than the priority level of the stack event.

Measurement Scope

Server

Recovery

1. When this measurement is increasing, it is an indication that the product is experiencing overload. Use **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **Routed Services Status** and **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **Connection Status** to determine if the offered load is expected and exceeds the product's capacity.

If the load is expected and exceeds the product's capacity, then the capacity should be increased so that the overload condition does not persist or reoccur.

2. It is recommended to contact [#unique_131](#) for assistance.

3.8.2 CAHSRsrcErr

Measurement ID

9875

Measurement Group

ComAgent Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Resource ID)

Description

Number of times that **ComAgent** receives in a heartbeat stack event status concerning a known Resource but an unknown Sub-Resource.

Collection Interval

30 min

Peg Condition

When **ComAgent** stores an unexpected Sub-Resource entry in the local Resource Provider Table. An unexpected Sub-Resource involves a known Resource but an unknown Sub-Resource ID (SRID). This condition is associated with Alarm-ID 19848, and only the first instance of an unexpected Sub-Resource is counted, not the repeats caused by multiple unknown Sub-Resources and the periodic heartbeats containing the same information.

Measurement Scope

Server

Recovery

1. Use **Main Menu**, and then **Communication Agent**, and then **Maintenance** to determine configuration problems.
2. It is recommended to contact [#unique_131](#) for assistance.

3.8.3 CAHSTxDscrdCongSR

Measurement ID

9872

Measurement Group

ComAgent Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Resource ID)

Description

Number of stack events discarded due to HA Service Sub-Resource congestion. During normal operation, this measurement should not be increasing. When this measurement is increasing, it is an indication that the product is experiencing overload.

Collection Interval

30 min

Peg Condition

Stack event submitted to **ComAgent** by a local User Layer, and the stack event references an HA Service Sub-Resource that has a congestion level greater than the priority level of the stack event.

Measurement Scope

Server

Recovery

1. Use **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **Routed Services Status** and **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **Connection Status** to determine if the offered load is expected and exceeds the product's capacity.

If the load is expected and exceeds the product's capacity, then the capacity should be increased so that the overload condition does not persist or reoccur. If the load does not exceed the product's capacity, then check the status of the servers hosting the Resource Providers to trouble-shoot the cause of the overload.

This measurement may not indicate an error if the discarded stack event was a reliable request, the Reliable Transfer Function was able to re-attempt, and the subsequent attempt got through.

2. It is recommended to contact [#unique_131](#) for assistance.

3.8.4 CAHSTxDscrdIntErrSR

Measurement ID

9874

Measurement Group

ComAgent Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Resource ID)

Description

Number of egress stack events destined to a known Sub-Resource that were discarded due to a ComAgent internal error.

Collection Interval

30 min

Peg Condition

User Layer submits to ComAgent an egress stack event destined to a known Sub-Resource and that is discarded due to a ComAgent internal error

Measurement Scope

Server

Recovery

1. Check other ComAgent measurements, alarms, and events to determine the source of the abnormality causing this measurement to arise.
2. If the problem persists, it is recommended to contact [#unique_131](#).

3.8.5 CAHSTxDscrdUnavailSR

Measurement ID

9871

Measurement Group

ComAgent Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Resource ID)

Description

Number of stack events discarded because they were submitted to an Unavailable Sub-Resource of a given Resource. During normal operation, this measurement should not be increasing. Each count of this measurement indicates that a local application attempted to send a stack event to another server using an HA Service Sub-Resource, but the event was discarded due to the Sub-Resource being unavailable.

Collection Interval

30 min

Peg Condition

Stack event submitted to **ComAgent** by a local User Layer, and the stack event references an Unavailable Sub-Resource.

Measurement Scope

Server

Recovery

1. Use **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **HA Services Status** to diagnose the cause of routing failures.

If a discarded stack event was a request from a reliable transaction and the routing failure was due to a temporary condition, then it is possible that the transaction completed successfully using one or more retransmit attempts.

This measurement may not indicate an error if the discarded stack event was a reliable request, the Reliable Transfer Function was able to re-attempt, and the subsequent attempt got through.

2. It is recommended to contact [#unique_131](#) for assistance.

3.8.6 CAHSTxDscrdUnknownSR

Measurement ID

9870

Measurement Group**ComAgent** Exception**Measurement Type**

Simple

Measurement Dimension

Arrayed (by Resource ID)

Description

Number of egress stack events discarded because they referred to a known Resource and an unknown Sub-Resource. During normal operation this measurement should be 0. A non-zero value for this measurement indicates that **ComAgent** is improperly configured to support a local application.

Collection Interval

30 min

Peg Condition

User Layer submits to **ComAgent** an egress stack event that refers to an unknown Sub-Resource.

Measurement Scope

Server

Recovery

1. Use **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **HA Services Status** to verify that all HA Service Sub-Resources expected by local applications are present and operating.
2. It is recommended to contact [#unique_131](#) for assistance.

3.8.7 CAHSTxDscrdUnkwnRsrc

Measurement ID

9873

Measurement Group**ComAgent** Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of egress stack events discarded because they referred to an unknown Resource.

Collection Interval

30 min

Peg Condition

User Layer submits to **ComAgent** an egress stack event that refers to an unknown Resource.

Measurement Scope

Server

Recovery

- 1.
2. Use **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **HA Services Status** to verify that all HA Service Sub-Resources expected by local applications are present and operating.
3. It is recommended to contact [#unique_131](#) for assistance.

3.8.8 CAHSTxRsrc

Measurement ID

9876

Measurement Group

ComAgent Performance, **ComAgent** Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Resource ID)

Description

Number of egress stack events that were routed to a known Resource.

Collection Interval

30 min

Peg Condition

User Layer submits to **ComAgent** an egress stack event destined to a known Resource.

Measurement Scope

Server

Recovery

- No action required.

3.8.9 CAPSTxDscrdUnkwnGrp

Measurement ID

8013

Measurement Group

ComAgent Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of egress stack events discarded because they referred to a Peer Group which was unknown

Collection Interval

30 min

Peg Condition

For each stack event submitted to ComAgent by a local User Layer and the stack event reference an Unknown Peer Group

Measurement Scope

Server

Recovery

1. A non-zero value of this measurement indicates that a local User Layer is malfunctioning and is attempting to use a Peer Group which it has not configured.
2. It is recommended to contact [#unique_131](#) for assistance.

3.8.10 CAPSTxDscrdUnavailGrp

Measurement ID

8014

Measurement Group

ComAgent Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Peer Group ID)

Description

The number of egress stack events discarded because they referred to a Peer Group which was unavailable

Collection Interval

30 min

Peg Condition

For each stack event submitted to ComAgent by a local User Layer and the stack event reference an Unavailable Peer Group

Measurement Scope

Server

Recovery

1. Each count of this measurement indicates that a local User Layer attempted to send a stack event to a remote server using ComAgent Peer Group Service, but the event was discarded due to the specified Peer Group being unavailable. The Peer Group may become unavailable due to:
 - Local User Layer performed maintenance action on the Peer Group that result in a loss of communication between servers.
 - Network problems that result in a loss of communication between servers.
2. It is recommended to contact [#unique_131](#) for assistance.

3.8.11 CAPSTxDscrdCongPeer

Measurement ID

8017

Measurement Group

ComAgent Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Peer Group ID)

Description

The number of egress stack events discarded because of Peer congestion.

Collection Interval

30 min

Peg Condition

For each stack event submitted to ComAgent by a local User Layer and the active Peer in the Peer Group has a congestion level greater than the priority level of the stack event.

Measurement Scope

Server

Recovery

1. Check the **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **Routed Services Status** and **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **Connection Status** screens to determine if the offered load is expected and exceeds the product's capacity.

If the load is expected and exceeds the product's capacity, then the capacity should be increased so that the overload condition does not persist or reoccur.
2. It is recommended to contact [#unique_131](#) for assistance.

3.8.12 CARsrcPoolFul

Measurement ID

9859

Measurement Group**ComAgent** Exception**Measurement Type**

Simple

Measurement Dimension

Single

Description**ComAgent** internal resource pool exhaustion condition.**Collection Interval**

30 min

Peg Condition

This is to track the measure of the internal resource (Ex: CommMessage Resource pool) exhaustion condition for a given interval. For each resource allocation/access attempt that result in resource pool manager returning an indication that the maximum resources reserved are allocated and are in-use. When this condition occurs

ComAgent tries to allocate a new resource from heap and relists it after its life cycle (Ex: CommMessage objects required for user data traffic for MxEndpoint interface).

Measurement Scope

NE, Server

Recovery

- This value provides a measure of how many times pre-allocated resources are exhausted in **ComAgent** interfaces.

This measurement is primarily intended for performance analysis and to assist in evaluating the need for any additional engineering processing capacity or tuning.

3.8.13 CARSTxDscrdCong

Measurement ID

9843

Measurement Group**ComAgent** Exception**Measurement Type**

Simple

Measurement Dimension

Arrayed (by Service ID)

Description

Number of stack events discarded due to Routed Service congestion.

Collection Interval

30 min

Peg Condition

Stack event submitted to **ComAgent** by a local User Layer, and the stack event references a Routed Service that has a congestion level greater than the priority level of the stack event.

Measurement Scope

Server

Recovery

1. Check the **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **Routed Services Status** and **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **Connection Status** screens to determine if the offered load is expected and exceeds the product's capacity.

If the load is expected and exceeds the product's capacity, then the capacity should be increased so that the overload condition does not persist or reoccur.

2. It is recommended to contact [#unique_131](#) for assistance.

3.8.14 CARSTxDscrdInternalErr

Measurement ID

9867

Measurement Group

ComAgent Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Service ID)

Description

Number of egress events discarded because of another Routed Service internal error

Collection Interval

30 min

Peg Condition

Each time an egress event is discarded because of another Router Service internal error

Measurement Scope

Server

Recovery

- It is recommended to contact [#unique_131](#) for assistance.

3.8.15 CARSTxDscrdSvcUnavail

Measurement ID

9830

Measurement Group

ComAgent Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Service ID)

Description

Number of stack events discarded because they were submitted to an Unavailable Routed Service.

Collection Interval

30 min

Peg Condition

Stack event submitted to **ComAgent** by a local User Layer, and the stack event references an Unavailable Routed Service.



Note:

Each count of this measurement indicates that a local application attempted to send a stack event to another server using a Routed Service, but the event was discarded due to the Routed Service being unavailable. Routing failures can occur due to:

- Maintenance actions are performed that result in a loss of communication between servers.
- Network problems result in a loss of communication between servers.
- Server overload can result in routes becoming unavailable for some stack events.

Measurement Scope

Server

Recovery

1. Check the **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **Routed Services Status** and **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **Connection Status** screens to further diagnose the cause of routing failures.

If a discarded stack event was a request from a reliable transaction and the routing failure was due to a temporary condition, then it is possible that the transaction completed successfully using one or more retransmit attempts.

2. It is recommended to contact [#unique_131](#) for assistance.

3.8.16 CARxDiscUnexpEvent

Measurement ID

9826

Measurement Group

ComAgent Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of ingress events discarded because it was unexpected in the connection operational state

Collection Interval

30 min

Peg Condition

For each ingress StackEvent that is discarded by **ComAgent** Stack, due to StackEvent received in unexpected connection state.

Measurement Scope

NE, Server

Recovery

- No action required.

This value provides a measure of how many ingress messages are discarded by **ComAgent** due to message received in unexpected connection state.

3.8.17 CARxDscrdBundle

Measurement ID

9994

Measurement Group

ComAgent Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of ingress bundled event discarded during routing.

Collection Interval

30 min

Peg Condition

Each time an ingress bundled event is discarded during routing

Measurement Scope

Site

Recovery

- No action required

3.8.18 CARxDscrdDecodeFailed

Measurement ID

9810

Measurement Group

ComAgent Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of ingress events discarded because failed to deserialize (event not part of stack service language).

Collection Interval

30 min

Peg Condition

For each StackEvent received from a configured peer server that resulted in any decode failures within **ComAgent** Stack.

Measurement Scope

NE, Server

Recovery

- No action required.

This value provides a measure of how many ingress messages are discarded by **ComAgent** due to internal decode error condition.

3.8.19 CARxDscrdIncompat

Measurement ID

9825

Measurement Group

ComAgent Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of ingress events discarded because an Incompatible header version is received.

Collection Interval

30 min

Peg Condition

For each ingress StackEvent that is discarded by **ComAgent** Stack, due to unsupported base header version, as indicated in StackEvent.

Measurement Scope

NE, Server

Recovery

- No action required.

This value provides a measure of how many ingress messages are discarded by **ComAgent** due to incompatible base header version of base software event library.

3.8.20 CARxDscrdInternalErr

Measurement ID

9818

Measurement Group

ComAgent Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of ingress events discarded because of other unexpected internal processing error.

Collection Interval

30 min

Peg Condition

For each ingress StackEvent that is discarded by **ComAgent** Stack, due to internal processing errors for conditions not covered by other meas-pegs.

Measurement Scope

NE, Server

Recovery

- No action required.

This value provides a measure of how many ingress messages are discarded by **ComAgent** due to internal software processing errors for conditions not covered by other measurement pegs.

3.8.21 CARxDscrdLayerSendFail

Measurement ID

9812

Measurement Group

ComAgent Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of User Data ingress events discarded because layer's sendTo failed.

Collection Interval

30 min

Peg Condition

For each User Data StackEvent received from a configured service peer server and resulted in send failure to the destination stack layer.

Measurement Scope

NE, Server

Recovery

- No action required.

This value provides a measure of how many User Data ingress messages are discarded by **ComAgent** due to internal send failure to destination stack layer.

3.8.22 CARxDscrdMsgLenErr

Measurement ID

9808

Measurement Group

ComAgent Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of ingress events discarded as it doesn't contain enough bytes (less than event header bytes).

Collection Interval

30 min

Peg Condition

For each StackEvent received from configured peer with message size less than the minimum required Header.

Measurement Scope

NE, Server

Recovery

- No action required.

This value provides a measure of how many ingress messages are discarded by **Communication Agent** due to message size error.

3.8.23 CARxDscrdUnkServer

Measurement ID

9820

Measurement Group

ComAgent Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of ingress events discarded because the origination server was unknown/not configured.

Collection Interval

30 min

Peg Condition

For each ingress StackEvent that is discarded by **ComAgent** Stack, due to unknown origination IP address contents in StackEvent.

Measurement Scope

NE, Server

Recovery

- No action required.

This value provides a measure of how many ingress messages are discarded by **ComAgent** due to unknown origination IP address in StackEvent.

3.8.24 CARxDscrdUnkStkLyr

Measurement ID

9811

Measurement Group

ComAgent Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of User Data ingress events discarded because stack layer is not known.

Collection Interval

30 min

Peg ConditionFor each User Data ingress StackEvent received by **Communication Agent Stack**, for an unknown destination stack.**Measurement Scope**

NE, Server

Recovery

- No action required.

This value provides a measure of how many ingress messages are discarded by **Communication Agent** , as the destination stack is not registered/known.

3.8.25 CARxMsgUnknown

Measurement ID

9809

Measurement Group**ComAgent** Exception**Measurement Type**

Simple

Measurement Dimension

Single

Description

Number of ingress events discarded because stack event was unknown.

Collection Interval

30 min

Peg Condition

For each undefined StackEvent received from one of the configured peer server.

Measurement Scope

NE, Server

Recovery

- No action required.

This value provides a measure of how many ingress messages are discarded by **ComAgent** as the message is not defined/known to **ComAgent Stack**.

3.8.26 CAsStackQueueFul

Measurement ID

9829

Measurement Group**ComAgent** Exception**Measurement Type**

Simple

Measurement Dimension

Arrayed

DescriptionStackEvents discarded due to **ComAgent** task queue full condition.**Collection Interval**

30 min

Peg ConditionFor each User Data egress StackEvent that is discarded by **ComAgent** Stack, due to failure in attempting to put the messages in **ComAgent** Egress Task Queue.**Measurement Scope**

NE, Server

Recovery

1. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an **MP** over several collection intervals, then the number of MPs in the Network Element may need to be increased.
2. If the peak and average for an individual **MP** is significantly different than other MPs in the same Network Element then an MP-specific hardware, software, or configuration problem may exist.
3. It is recommended to contact [#unique_131](#) for assistance.

3.8.27 CATransDscrdInvCorrId

Measurement ID

9832

Measurement Group**ComAgent** Exception**Measurement Type**

Simple

Measurement DimensionSingle

Description

Number of received stack events that were received and discarded because they did not correlate with a pending transaction.

Collection Interval

30 min

Peg Condition

ComAgent receives a response stack event that contains a correlation ID that does not match a pending transaction record.

Measurement Scope

Server

Recovery

- This measurement indicates that one or more destination servers are either responding to requests after a transaction has ended or are sending invalid responses. It is recommended to contact [#unique_131](#) for assistance.

3.8.28 CATransDscrdStaleErrRsp

Measurement ID

9833

Measurement Group

ComAgent Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Service ID)

Description

Number of times that an error response was discarded because it contained a valid correlation ID value but its originating server was not the last server to which the request was sent.

Collection Interval

30 min

Peg Condition

ComAgent receives an error response stack event that has a correlation ID for an existing pending transaction record but that is originated from a different server than to which the request was last sent. This measurement indicates that one or more servers are responding with errors to requests after the local **ComAgent** has retransmitted the requests to other destination servers. This could occur due to:

- Network problems result in intermittent loss of communication between servers.
- Server overload results in delayed responses

Measurement Scope

Server

Recovery

1. Use **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **Routed Services Status** and **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **Connection Status** to check the status of the far-end servers and look for signs of overload.
2. It is recommended to contact [#unique_131](#) for assistance.

3.8.29 CATransEndAbnorm

Measurement ID

9834

Measurement Group

ComAgent Exception, ComAgent Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Service ID)

Description

Number of reliable transactions that terminated abnormally.

Collection Interval

30 min

Peg Condition

- Transaction times-out waiting for a response, and the maximum number of transmits has been reached.
- Transaction time-to-live limit is exceeded.
- Transaction terminated due to lack of resources.

**Note:**

This measurement is NOT pegged for these conditions:

- Transaction involves an unknown service.
- Transaction involves an unregistered Routed Service.

Measurement Scope

Server

Recovery

1. Check the **ComAgent** Exception report to further diagnose the reasons why transactions are failing.
2. It is recommended to contact [#unique_131](#) for assistance.

3.8.30 CATransEndAbnormRateAvg

Measurement ID

9865

Measurement Group**ComAgent** Performance, **ComAgent** Exception**Measurement Type**

Average

Measurement Dimension

Arrayed (by Service ID)

Description

Average rate per second that **ComAgent** transactions ended abnormally during the collection interval.

Collection Interval

30 min

Peg Condition

Rate of transaction failures due to final timeouts. Failed Transaction Rate monitoring is an average rate using a sliding-metric algorithm. The average transaction failure rate is a running average, smoothed over approximately 10 seconds. This measurement provides the average rate per second that **ComAgent** transactions were started. This measurement is useful during troubleshooting when compared to other measurements.

Measurement Scope

Server

Recovery

- No action necessary.

3.8.31 CATransEndAbnormRateMax

Measurement ID

9866

Measurement Group**ComAgent** Performance, **ComAgent** Exception**Measurement Type**

Max

Measurement Dimension

Arrayed (by Service ID)

Description

Maximum rate per second that **ComAgent** transactions ended abnormally during the collection interval.

Collection Interval

30 min

Peg Condition

Rate of transaction failures due to final timeouts. Failed Transaction Rate monitoring is an average rate using a sliding-metric algorithm. The average transaction failure rate is a running average, smoothed over approximately 10 seconds. This measurement provides the maximum rate per second that **ComAgent** transactions were started. This measurement is useful during troubleshooting when compared to other measurements.

Measurement Scope

Server

Recovery

- No action necessary.

3.8.32 CATransEndAnsErr

Measurement ID

9845

Measurement Group**ComAgent** Exception**Measurement Type**

Simple

Measurement Dimension

Arrayed (by Service ID)

Description

Number of reliable transactions initiated by local User Layers that ended with an error response from a destination server.

Collection Interval

30 min

Peg Condition

When a reliable response stack event (G=1, A=1, E=1) is received from a server to which a request was sent, and the response corresponds to a pending transaction record.

Measurement Scope

Server

Recovery

- No action necessary.

This measurement has value when compared against other measurements. Server applications may respond with errors as part of normal operations, as seen by **ComAgent**.

3.8.33 CATransEndErr

Measurement ID

9846

Measurement Group

ComAgent Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Service ID)

Description

Number of reliable transactions initiated by local User Layers that ended abnormally with an error response from a destination server.

Collection Interval

30 min

Peg Condition

When a valid reliable response stack event (G=1, A=0, E=1) is received from a server to which a request was sent, and the response corresponds to a pending transaction record. This measurement indicates that one or more destination servers are unable to process reliable requests received from the local server. This can be caused due to maintenance actions, server overload, and unexpected conditions in software.

Measurement Scope

Server

Recovery

1. Use **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **Routed Services Status** and **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **Connection Status** to determine network and server communications.
2. It is recommended to contact [#unique_131](#) for assistance.

3.8.34 CATransEndNoResources

Measurement ID

9848

Measurement Group

ComAgent Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Service ID)

Description

Number of reliable transactions initiated by local User Layers that ended abnormally due to lack of resources.

Collection Interval

30 min

Peg Condition

ComAgent receives a reliable request (G=1, R=1) from a local User Layer and **ComAgent** is unable to allocate resources to process the transaction. This measurement indicates that the local server is exhausting its resources for processing reliable transactions. This can result when the combination of transaction rate and response delays exceeds engineered limits. High transaction rates can result from local server overload. Excess response delays can result from overloaded destination servers and problems in the network between servers.

Measurement Scope

Server

Recovery

1. Use **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **Routed Services Status** and **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **Connection Status** to determine network and server communications.
2. It is recommended to contact [#unique_131](#) for assistance.

3.8.35 CATransEndNoResponse

Measurement ID

9847

Measurement Group

ComAgent Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Service ID)

Description

Number of reliable transactions initiated by local User Layers that ended abnormally due to a timeout waiting for a response.

Collection Interval

30 min

Peg Condition

Limit on the number of retransmits is reached with no response and limit on the transaction time-to-live is exceeded. This measurement indicates that one or more destination servers are unable to process reliable requests received from the local server. This can be caused due to maintenance actions, server overload, and unexpected conditions in software.

Measurement Scope

Server

Recovery

1. Use **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **Routed Services Status** and **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **Connection Status** to determine network and server communications.
2. It is recommended to contact [#unique_131](#) for assistance.

3.8.36 CATransEndUnkwnSvc

Measurement ID

9842

Measurement Group

ComAgent Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of reliable transactions initiated by local User Layers that ended abnormally because they referred to an unknown service.

Collection Interval

30 min

Peg Condition

ComAgent receives a reliable request (G=1, R=1) from a local User Layer that refers to an unknown service. This measurement indicates improper configuration of **ComAgent** and/or a User Layer application.

Measurement Scope

Server

Recovery

1. Use **Main Menu**, and then **Communication Agent**, and then **Configuration**, and then **Routed Services** to confirm that all services expected by local applications are present.
2. It is recommended to contact [#unique_131](#) for assistance if needed.

3.8.37 CATransEndUnregSvc

Measurement ID

9861

Measurement Group

ComAgent Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of reliable transactions initiated by local User Layers that ended abnormally because they referred to a known service that lacked a registered User Layer.

Collection Interval

30 min

Peg Condition

ComAgent receives a reliable request (G=1, R=1) from a local User Layer that refers to a known service that has no registered User Layer.

Measurement Scope

Server

Recovery

- A non-zero value in this measurement indicates a software malfunction. It is recommended to contact [#unique_131](#) for assistance.

3.8.38 CATransNoReTxMaxTTL

Measurement ID

9895

Measurement Group**ComAgent** Exception**Measurement Type**

Simple

Measurement Dimension

Arrayed (by Service ID)

Description

Number of reliable transactions abnormally ended because of Max Time to live exceeded without any retransmits.

Collection Interval

30 min

Peg Condition

Maximum Time To Live period exceeded with no retransmission attempts and no response received for the transaction. This measurement provides a measure of abnormal transactions due to maximum time to live period exceeded condition (Without any retransmits) and no response is received from remote. Such abnormal transactions can be due to:

- Server overload that can result in delayed responses.

- Unexpected conditions in software.

Measurement Scope

Server

Recovery

1. Use **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **Routed Services Status** and **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **Connection Status** to determine network and server communications.
2. It is recommended to contact [#unique_131](#) if assistance is needed

3.8.39 CATransRetx

Measurement ID

9831

Measurement Group

ComAgent Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Service ID)

Description

Number of times stack events were retransmitted.

Collection Interval

30 min

Peg Condition

ComAgent reliable transaction retransmit timer expires and the limit on the number of retransmits has not been reached. When this measurement is increasing, it indicates that communication between servers is experiencing unexpectedly high latency and/or packet loss. Retransmissions can occur due to:

- Maintenance actions are performed that result in a loss of communication between servers.
- Network problems result in a loss of communication between servers.
- Server overload can result in delayed responses.

Measurement Scope

Server

Recovery

1. Use **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **Routed Services Status** and **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **Connection Status** to determine network and server communications.
2. It is recommended to contact [#unique_131](#) for assistance.

3.8.40 CATransReTxExceeded

Measurement ID

9894

Measurement Group

ComAgent Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Service ID)

Description

Number of reliable transactions abnormally ended because of Max number of Retries exceeded.

Collection Interval

30 min

Peg Condition

Number of retransmits limit is reached with no response received for the transaction. This measurement provides a measure of abnormal transactions due to maximum number of retransmission exceeded condition awaiting response from remote. Such abnormal transactions can be due to:

- Maintenance actions performed that result in a loss of communication between servers.
- Server overload that can result in delayed responses.
- Unexpected conditions in software.

Measurement Scope

Server

Recovery

1. Use **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **Routed Services Status** and **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **Connection Status** to determine network and server communications.
2. It is recommended to contact [#unique_131](#) if assistance is needed

3.8.41 CATransStaleSuccessRsp

Measurement ID

9862

Measurement Group

ComAgent Exception

Measurement TypeSimple

Measurement Dimension

Arrayed (by Service ID)

Description

Number of times that a success response was received from an unexpected server and was accepted to end a transaction.

Collection Interval

30 min

Peg Condition

ComAgent receives a success response stack event (G=1, A=1, E=1) that has a correlation ID for an existing pending transaction record but that is originated from a different server than to which the request was last sent. This measurement indicates that a Routed Service received a success response from an unexpected server. This most commonly occurs if a server is slow to respond, **ComAgent** retransmits a request to another server, and then the original server finally responds to the request.

Measurement Scope

Server

Recovery

1. Use **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **Routed Services Status** and **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **Connection Status** to diagnose stale responses.
2. It is recommended to contact [#unique_131](#) for assistance.

3.8.42 CATransTTLExceeded

Measurement ID

9893

Measurement Group

ComAgent Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Service ID)

Description

Number of reliable transactions abnormally ended because of Max Time to live exceeded.

Collection Interval

30 min

Peg Condition

Maximum Time To Live period exceeded with at least one retransmission attempted and no response received for the transaction. This measurement provides a measure of abnormal transactions due to maximum time to live period exceeded condition

(Where at least one retransmission was also attempted) and no response is received from remote. Such abnormal transactions can be due to:

- Maintenance actions performed that result in a loss of communication between servers.
- Server overload that can result in delayed responses.
- Unexpected conditions in software.

Measurement Scope

Server

Recovery

1. Use **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **Routed Services Status** and **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **Connection Status** to determine network and server communications.
2. It is recommended to contact [#unique_131](#) if assistance is needed

3.8.43 CATxDscrdBundle

Measurement ID

9993

Measurement Group

ComAgent Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of egress bundled event discarded during routing.

Collection Interval

30 min

Peg Condition

Each time an egress bundled event is discarded during routing

Measurement Scope

Site

Recovery

- No action required

3.8.44 CATxDscrdConnUnAvail

Measurement ID

9802

Measurement Group**ComAgent** Exception**Measurement Type**

Simple

Measurement Dimension

Single

Description

Number of User Data egress events discarded because connection was not in-service(down/blocked/not aligned).

Collection Interval

30 min

Peg Condition

For each User Data egress StackEvent that is discarded by **ComAgent** Stack, due to connection status not being in-service.

Measurement Scope

NE, Server

Recovery

- No action required.

This value provides a measure of how many User Data egress messages are discarded by **ComAgent** due to connection unavailability reasons.

3.8.45 CATxDscrdDestUserIncmpat

Measurement ID

9803

Measurement Group**ComAgent** Exception**Measurement Type**

Simple

Measurement Dimension

Single

Description

Number of User Data egress events discarded because the remote doesn't support requested capabilities (either it doesn't support stack or event library or event library version is incompatible).

Collection Interval

30 min

Peg Condition

For each User Data egress StackEvent that is discarded by **Communication Agent** Stack, due to incompatibility in requested library id/version and the one known by **Communication Agent**.

Measurement Scope

NE, Server

Recovery

- No action required.

This value provides a measure of how many User Data egress messages are discarded by **Communication Agent** due to remote not supporting requested capabilities.

3.8.46 CATxDscrdEncodeFail

Measurement ID

9804

Measurement Group**ComAgent** Exception**Measurement Type**

Simple

Measurement Dimension

Single

Description

Number of User Data egress events discarded because of serialization failures.

Collection Interval

30 min

Peg Condition

For each User Data egress StackEvent that is discarded by **Communication Agent** Stack, due to any local encode failures.

Measurement Scope

NE, Server

Recovery

- No action required.

This value provides a measure of how many User Data egress messages are discarded by **Communication Agent** due to local encode failure.

3.8.47 CATxDscrdInternalErr

Measurement ID

9817

Measurement Group**ComAgent** Exception**Measurement Type**

Simple

Measurement Dimension

Single

Description

Number of egress events discarded because of other unexpected internal processing error.

Collection Interval

30 min

Peg Condition

For each egress StackEvent that is discarded by **ComAgent** Stack, due to internal processing errors for conditions not covered by other meas-pegs.

Measurement Scope

NE, Server

Recovery

- No action required.

This value provides a measure of how many egress messages are discarded by **ComAgent** due to internal software processing errors for conditions not covered by other measurement pegs.

3.8.48 CATxDscrdMxSendFail

Measurement ID

9805

Measurement Group

ComAgent Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of User Data egress events discarded because of failure reported by MxEndpoint.

Collection Interval

30 min

Peg Condition

For each User Data egress StackEvent that is discarded by **Communication Agent** Stack, due to send failure as indicated by underlying transport.

Measurement Scope

NE, Server

Recovery

- No action required.

This value provides a measure of how many User Data egress messages are discarded by **Communication Agent** due to transport reported error condition.

3.8.49 CATxDscrdUnknownSvc

Measurement ID

9849

Measurement Group**ComAgent** Exception**Measurement Type**

Simple

Measurement Dimension

Single

Description

Number of non-reliable and non-request (G=0 or R=0) egress stack events discarded because they refer to an unknown service. This measurement indicates that **ComAgent** is improperly configured to support a local application.

Collection Interval

30 min

Peg Condition

User Layer submits to **ComAgent** a non-reliable or non-request (G=0 or R=0) egress stack event that refers to an unknown service.

Measurement Scope

Server

Recovery

1. Use **Main Menu**, and then **Communication Agent**, and then **Configuration**, and then **Routed Services** screen to verify that all Routed Services expected by local applications are properly configured.
2. It is recommended to contact [#unique_131](#) for assistance.

3.8.50 CATxDscrdUnkServer

Measurement ID

9819

Measurement Group**ComAgent** Exception**Measurement Type**

Simple

Measurement Dimension

Single

Description

Number of egress events discarded because the destination server was unknown/not configured.

Collection Interval

30 min

Peg Condition

For each egress StackEvent that is discarded by **ComAgent** Stack, due to unknown destination IP address contents in StackEvent.

Measurement Scope

NE, Server

Recovery

- No action required.

This value provides a measure of how many egress messages are discarded by **ComAgent** due to unknown destination IP address in StackEvent.

3.8.51 CATxDscrdUnregSvc

Measurement ID

9860

Measurement Group

ComAgent Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Service ID)

Description

Number of egress stack events discarded because they reference a known service that has no registered User Layer.

Collection Interval

30 min

Peg Condition

User Layer submits to **ComAgent** an egress stack event that refers to a known service that lacks a registered User Layer.

Measurement Scope

Server

Recovery

- A non-zero measurement indicates that a local application is malfunctioning and is attempting to use a service for which it has not registered. It is recommended to contact [#unique_131](#) for assistance.

3.9 Communication Agent (ComAgent) Performance measurements

The **Communication Agent** Performance measurement group is a set of measurements that provide performance information that is specific to the **Communication Agent** protocol. These measurements will allow the user to determine how many messages are successfully forwarded and received to and from each DSR Application.

3.9.1 CAAvgDataFIFOQueueUtil

Measurement ID

9969

Measurement Group

ComAgent Performance

Measurement Type

Average

Measurement Dimension

Arrayed

Description

Average percentage of ComAgent DataFIFO Queue Utilization.

Collection Interval

30 min

Peg Condition

The average ComAgent connection DataFIFO Queue utilization sample taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. This measurement is primarily intended to assist in evaluating any issues with ComAgent User Data StackEvent processing and thread scheduling.

If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an MP over several collection intervals, then the queue depth may need to be tuned.

If the peak and average for an individual MP is significantly different than other MPs in the same Network Element then an MP-specific hardware, software, or configuration problem may exist.

2. It is recommended to contact [#unique_131](#) for assistance.

3.9.2 CAAvgQueueUtil

Measurement ID

9828

Measurement Group

ComAgent Performance

Measurement Type

Average

Measurement Dimension

Arrayed

Description

Average percentage of Queue Utilization.

Collection Interval

30 min

Peg Condition

The average **ComAgent** Egress Task Queue utilization sample taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an **MP** over several collection intervals, then the number of MPs in the Network Element may need to be increased.
2. If the peak and average for an individual **MP** is significantly different than other MPs in the same Network Element then an MP-specific hardware, software, or configuration problem may exist.
3. It is recommended to contact [#unique_131](#) for assistance.

3.9.3 CAAvgRsrcPoolUtil

Measurement ID

9858

Measurement Group

ComAgent Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Average percentage of internal resource pool utilization.

Collection Interval

30 min

Peg Condition

This is to track the measure of average usage of the internal resource (Ex: CommMessage Resource pool) for a given interval.

Measurement Scope

NE, Server

Recovery

- This measurement is primarily intended to assist in evaluating the need for additional processing or performance capacity tuning on a node.

If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of a node over several collection intervals, then the internal engineering resource pool capacity or other dependent parameters may need to be tuned, so that it does not result in unaccounted latency.

3.9.4 CAAvgRxStackEvents

Measurement ID

9822

Measurement Group

ComAgent Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Average Number of User Data ingress events received.

Collection Interval

30 min

Peg Condition

The average User Data ingress StackEvent sample taken during the collection interval.

Measurement Scope

NE, Server

Recovery

- No action required.

This value provides a measure of Average Value during the interval, for number of User Data messages received from remote.

3.9.5 CAAvgTxStackEvents

Measurement ID

9816

Measurement Group

ComAgent Performance

Measurement Type

Average

Measurement Dimension

Single

Description

Average Number of User Data egress events received from stacks to deliver it to remote.

Collection Interval

30 min

Peg Condition

The average User Data egress StackEvent sample taken during the collection interval.

Measurement Scope

NE, Server

Recovery

- No action required.

This value provides a measure of Average Value during the interval, for number of User Data messages transmitted to remote.

3.9.6 CADSTx

Measurement ID

9814

Measurement Group

ComAgent Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of User Data egress events specifically for the default Direct Service.

Collection Interval

30 min

Peg Condition

For each User Data egress StackEvent received specifically for the default Direct Service and processed by **ComAgent** Stack.

Measurement Scope

NE, Server

Recovery

- No action required.

This value provides a measure of how many User Data egress messages are received by **ComAgent** to be transmitted from hosting server to destined remote server using default Direct "EventTransfer" Service.

3.9.7 CAHSTxRsrc

Measurement ID

9876

Measurement Group

ComAgent Performance, **ComAgent** Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Resource ID)

Description

Number of egress stack events that were routed to a known Resource.

Collection Interval

30 min

Peg Condition

User Layer submits to **ComAgent** an egress stack event destined to a known Resource.

Measurement Scope

Server

Recovery

- No action required.

3.9.8 CAHSTxRsrcRateAvg

Measurement ID

9877

Measurement Group

ComAgent Performance

Measurement Type

Average

Measurement Dimension

Arrayed (by Resource ID)

Description

Average rate per second of egress stack events routed to a known Resource.

Collection Interval

30 min

Peg Condition

Based upon the SysMetric.

Measurement Scope

Server

Recovery

- No action required.

3.9.9 CAHSTxRsrcRateMax

Measurement ID

9878

Measurement Group

ComAgent Performance

Measurement Type

Max

Measurement Dimension

Arrayed (by Resource ID)

Description

Maximum rate per second of egress stack events routed to a known Resource.

Collection Interval

30 min

Peg Condition

Based upon the SysMetric.

Measurement Scope

Server

Recovery

- No action required.

3.9.10 CAPeakDataFIFOQueueUtil

Measurement ID

9968

Measurement Group

ComAgent Performance

Measurement Type

Max

Measurement Dimension

Arrayed

Description

Maximum percentage of ComAgent DataFIFO Queue Utilization.

Collection Interval

30 min

Peg Condition

The maximum ComAgent DataFIFO Queue utilization sample taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. This measurement is primarily intended to assist in evaluating any issues with ComAgent User Data StackEvent processing and thread scheduling.

If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an MP over several collection intervals, then the queue depth may need to be tuned.

If the peak and average for an individual MP is significantly different than other MPs in the same Network Element then an MP-specific hardware, software, or configuration problem may exist.

2. It is recommended to contact [#unique_131](#) for assistance.

3.9.11 CAPeakQueueUtil

Measurement ID

9827

Measurement Group

ComAgent Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Maximum percentage of Queue Utilization.

Collection Interval

30 min

Peg Condition

The maximum **ComAgent** Egress Task Queue utilization sample taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an **MP** over several collection intervals, then the number of MPs in the Network Element may need to be increased.
2. If the peak and average for an individual **MP** is significantly different than other MPs in the same Network Element then an MP-specific hardware, software, or configuration problem may exist.
3. It is recommended to contact [#unique_131](#) for assistance.

3.9.12 CAPeakRsrcPoolUtil

Measurement ID

9857

Measurement Group

ComAgent Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Maximum percentage of internal resource pool utilization.

Collection Interval

30 min

Peg Condition

This is to track the measure of maximum usage of the internal resource (Ex: CommMessage Resource pool) for a given interval.

Measurement Scope

NE, Server

Recovery

- This measurement is primarily intended to assist in evaluating the need for additional processing or performance capacity tuning on a node.

If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of a node over several collection intervals, then the internal engineering resource pool capacity or other dependent parameters may need to be tuned, so that it does not result in unaccounted latency.

3.9.13 CAPeakRxStackEvents

Measurement ID

9821

Measurement Group

ComAgent Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Maximum Number of User Data ingress events received.

Collection Interval

30 min

Peg Condition

The maximum User Data ingress StackEvent sample taken during the collection interval.

Measurement Scope

NE, Server

Recovery

- No action required.

This value provides a measure of Peak Value during the interval, for number of User Data messages received from remote.

3.9.14 CAPeakTxStackEvents

Measurement ID

9815

Measurement Group

ComAgent Performance

Measurement Type

Max

Measurement Dimension

Single

Description

Maximum Number of User Data egress events received from stacks to deliver it to remote.

Collection Interval

30 min

Peg Condition

The maximum User Data egress StackEvent sample taken during the collection interval.

Measurement Scope

NE, Server

Recovery

- No action required.

This value provides a measure of Peak Value during the interval, for number of User Data messages transmitted to remote.

3.9.15 CAPSTxGrp

Measurement ID

8015

Measurement Group

ComAgent Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Peer Group ID)

Description

The number of egress stack events submitted to the Peer Group Service to be routed to a known Peer Group.

Collection Interval

30 min

Peg Condition

For each stack event submitted to ComAgent Peer Group Service by a local User Layer.

Measurement Scope

Server

Recovery

- No action required. This measurement is useful when compared with other Peer Group Service measurements.

3.9.16 CAPSTxGrpSuccess

Measurement ID

8016

Measurement Group

ComAgent Performance

Measurement Type

Simple

Measurement Dimension
Arrayed (by Peer Group ID)

Description
The number of egress stack events successfully routed to a known Peer Group.

Collection Interval
30 min

Peg Condition
For each stack event submitted to ComAgent Peer Group Service by a local User Layer and successfully routed

Measurement Scope
Server

Recovery

- No action required. This measurement is useful when compared with other Peer Group Service measurements.

3.9.17 CARSTx

Measurement ID
9844

Measurement Group
ComAgent Performance

Measurement Type
Simple

Measurement Dimension
Arrayed (by Service ID)

Description
Number of stack events submitted to a Routed Service for routing.

Collection Interval
30 min

Peg Condition
Stack event submitted to **ComAgent** Routed Service by a local User Layer

Measurement Scope
Server

Recovery

- No action necessary

3.9.17.1 CARx

Measurement ID
9806

Measurement Group
ComAgent Performance

Measurement Type
Simple

Measurement Dimension
Single

Description
Number of User Data ingress events received from a peer server.

Collection Interval
30 min

Peg Condition
For each User Data StackEvent received from one of the configured peer and processed by **Communication Agent Stack**.

Measurement Scope
NE, Server

Recovery

- No action required.
This value provides a measure of how many User Data ingress messages are received by **Communication Agent** to be transmitted to local hosting stack. This measurement count should be equal to the summation of User Data ingress events success and all User Data ingress events discards measurement counts

3.9.18 CARxBundled

Measurement ID
9986

Measurement Group
ComAgent Performance

Measurement Type
Simple

Measurement Dimension
Single

Description
Number of ComAgent Bundled events received by ComAgent

Collection Interval
30 min

Peg Condition
Each time a ComAgent Bundled event is received by ComAgent

Measurement Scope
Site

Recovery

- No action required

3.9.19 CARxEventsBundled

Measurement ID

9988

Measurement Group

ComAgent Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of stackevents received in ComAgent Bundled events

Collection Interval

30 min

Peg Condition

Each time a stackevent is received in ComAgent Bundled events

Measurement Scope

Site

Recovery

- No action required

3.9.20 CARxSuccess

Measurement ID

9807

Measurement Group

ComAgent Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of User Data ingress events successfully routed to local layers.

Collection Interval

30 min

Peg Condition

For each User Data StackEvent received from a peer server and successfully transmitted to the local stack.

Measurement Scope

NE, Server

Recovery

- No action required.

This value provides a measure of how many User Data ingress messages are received by **Communication Agent** and are successfully transmitted to local hosting stack.

3.9.21 CATransEndAbnorm

Measurement ID

9834

Measurement Group

ComAgent Exception, **ComAgent** Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Service ID)

Description

Number of reliable transactions that terminated abnormally.

Collection Interval

30 min

Peg Condition

- Transaction times-out waiting for a response, and the maximum number of transmits has been reached.
- Transaction time-to-live limit is exceeded.
- Transaction terminated due to lack of resources.

 **Note:**

This measurement is NOT pegged for these conditions:

- Transaction involves an unknown service.
- Transaction involves an unregistered Routed Service.

Measurement Scope

Server

Recovery

1. Check the **ComAgent** Exception report to further diagnose the reasons why transactions are failing.
2. It is recommended to contact [#unique_131](#) for assistance.

3.9.22 CATransEndAbnormRateAvg

Measurement ID

9865

Measurement Group

ComAgent Performance, **ComAgent** Exception

Measurement Type

Average

Measurement Dimension

Arrayed (by Service ID)

Description

Average rate per second that **ComAgent** transactions ended abnormally during the collection interval.

Collection Interval

30 min

Peg Condition

Rate of transaction failures due to final timeouts. Failed Transaction Rate monitoring is an average rate using a sliding-metric algorithm. The average transaction failure rate is a running average, smoothed over approximately 10 seconds. This measurement provides the average rate per second that **ComAgent** transactions were started. This measurement is useful during troubleshooting when compared to other measurements.

Measurement Scope

Server

Recovery

- No action necessary.

3.9.23 CATransEndAbnormRateMax

Measurement ID

9866

Measurement Group

ComAgent Performance, **ComAgent** Exception

Measurement Type

Max

Measurement Dimension

Arrayed (by Service ID)

Description

Maximum rate per second that **ComAgent** transactions ended abnormally during the collection interval.

Collection Interval

30 min

Peg Condition

Rate of transaction failures due to final timeouts. Failed Transaction Rate monitoring is an average rate using a sliding-metric algorithm. The average transaction failure rate is a running average, smoothed over approximately 10 seconds. This measurement provides the maximum rate per second that **ComAgent** transactions were started. This measurement is useful during troubleshooting when compared to other measurements.

Measurement Scope

Server

Recovery

- No action necessary.

3.9.24 CATransEndNorm

Measurement ID

9836

Measurement Group

ComAgent Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Service ID)

Description

Number of reliable transactions initiated by local User Layers that ended normally with a response from a destination server.

Collection Interval

30 min

Peg Condition

When a valid reliable response stack event (G=1, A=1) is received that corresponds to a pending transaction record.

Measurement Scope

Server

Recovery

- No action necessary.

This measurement has value when compared against other measurements. If no new transactions are started, then during normal operation, this measurement should match [CATransStarted](#) .

3.9.25 CATransPendingAvg

Measurement ID

9838

Measurement Group

ComAgent Performance

Measurement Type

Average

Measurement Dimension

Arrayed (by Service ID)

Description

Average number of allocated pending transaction records over the collection interval.

Collection Interval

30 min

Peg Condition

Average number of allocated pending transaction records during the collection interval.

Measurement Scope

Server

Recovery

- No action necessary.

3.9.26 CATransPendingMax

Measurement ID

9837

Measurement Group

ComAgent Performance

Measurement Type

Max

Measurement Dimension

Arrayed (by Service ID)

Description

Maximum number of allocated pending transaction records.

Collection Interval

30 min

Peg Condition

When a pending transaction record is allocated, and the total count of allocated pending transaction records exceeds the current peak.

Measurement Scope

Server

Recovery

- No action necessary.

3.9.27 CATransRateAvg

Measurement ID

9863

Measurement Group**ComAgent** Performance**Measurement Type**

Average

Measurement Dimension

Arrayed (by Service ID)

Description

Average rate per second that **ComAgent** transactions were started during the collection interval.

Collection Interval

30 min

Peg Condition

Transaction rate monitoring is an average rate using a sliding-metric algorithm. The average transaction rate is a running average, smoothed over approximately 10 seconds. This measurement provides the average rate per second that **ComAgent** transactions were started. This measurement is useful during troubleshooting when compared to other measurements.

Measurement Scope

Server

Recovery

- No action necessary.

3.9.28 CATransRateMax

Measurement ID

9864

Measurement Group**ComAgent** Performance**Measurement Type**

Max

Measurement Dimension

Arrayed (by Service ID)

Description

Maximum rate per second that **ComAgent** transactions were started during the collection interval.

Collection Interval

30 min

Peg Condition

Transaction rate monitoring is an average rate using a sliding-metric algorithm. The average transaction rate is a running average, smoothed over approximately 10 seconds. This measurement provides the maximum rate per second that **ComAgent** transactions were started. This measurement is useful during troubleshooting when compared to other measurements.

Measurement Scope

Server

Recovery

- No action necessary.

3.9.29 CATransStarted

Measurement ID

9835

Measurement Group

ComAgent Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Service ID)

Description

Number of reliable transactions initiated by local User Layers.

Collection Interval

30 min

Peg Condition

When a valid reliable request stack event (G=1, R=1) is received from a local User Layer.

Measurement Scope

Server

Recovery

- No action necessary.

3.9.30 CATransTimeAvg

Measurement ID

9840

Measurement Group
ComAgent Performance

Measurement Type
Average

Measurement Dimension
Arrayed (by Service ID)

Description
Average transaction life-time in milliseconds.

Collection Interval
30 min

Peg Condition
Transaction ends either normally or abnormally.

Measurement Scope
Server

Recovery

- No action necessary.

3.9.31 CATransTimeMax

Measurement ID
9839

Measurement Group
ComAgent Performance

Measurement Type
Max

Measurement Dimension
Arrayed (by Service ID)

Description
Maximum transaction life-time in milliseconds.

Collection Interval
30 min

Peg Condition
Transaction ends either normally or abnormally.

Measurement Scope
Server

Recovery

- No action necessary.

3.9.32 CATx

Measurement ID

9800

Measurement Group

ComAgent Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of User Data egress events received on **Communication Agent** task queue from local stacks to deliver it to a peer server.

Collection Interval

30 min

Peg Condition

For each User Data egress StackEvent received and processed by **Communication Agent** Stack.

Measurement Scope

NE, Server

Recovery

- No action required.

This value provides a measure of how many User Data egress messages are received by **Communication Agent** for direct or indirect routing service.

This measurement count should be equal to the summation of User Data egress events success and all User Data egress events discards measurement counts.

This measurement count should be equal to the summation of User Data egress events received by **Communication Agent** for each (Direct, Routed and HA) routing service.

3.9.33 CATxBundled

Measurement ID

9985

Measurement Group

ComAgent Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of ComAgent Bundled events transmitted by ComAgent

Collection Interval

30 min

Peg Condition

Each time a ComAgent Bundled event is transmitted by ComAgent

Measurement Scope

Site

Recovery

- No action required

3.9.34 CATxEventsBundled

Measurement ID

9987

Measurement Group

ComAgent Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of stackevents transmitted through ComAgent Bundled events

Collection Interval

30 min

Peg Condition

Each time a stackevent is transmitted through ComAgent Bundled events

Measurement Scope

Site

Recovery

- No action required

3.9.35 CATxSuccess

Measurement ID

9801

Measurement Group

ComAgent Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of User Data egress events successfully delivered to a peer server.

Collection Interval

30 min

Peg Condition

For each User Data egress StackEvent transmitted to the peer server.

Measurement Scope

NE, Server

Recovery

- No action required.

This value provides a measure of how many User Data messages are successfully transmitted from hosting server to destined remote server over “event transfer” static connection.

3.10 Computer Aided Policy Making measurements

The Computer-Aided Policy Making (CAPM) measurement report contains usage-based measurements related to the Diameter Mediation feature.

3.10.1 CAPM_Temp_Invoked

Measurement ID

16500

Measurement Group

CAPM

Measurement Type

Simple

Measurement Dimension

Arrayed by Template Name

Description

Indicates the number of times a Rule Template has been invoked. This counter is incremented on a per Rule Template basis every time the Rule Template is processed.

Collection Interval

5 min

Peg Condition

A Rule Template is invoked during the message processing.

Measurement Scope

Server Group

Recovery

1. Verify that the Rule Template was set to Test or Active state and was assigned to the correct Execution Trigger.
2. Verify the conditions of the Rule Template were properly set and the provisioned routing or/and mediation data matches the incoming message.
3. Verify that Alarm 25000 - Rule Template failed to be updated (refer to the *DSR Alarms and KPIs Reference* for details about this alarm) is not raised.

3.10.2 CAPM_CondSet_True

Measurement ID

16501

Measurement Group

CAPM

Measurement Type

Simple

Measurement Dimension

Arrayed by Template Name

Description

Indicates the number of times a condition set has been evaluated to True. This counter is incremented on a per Rule Template basis every time all the conditions of the condition set match.

Collection Interval

5 min

Peg Condition

A Condition Set matches during the message processing.

Measurement Scope

Server Group

Recovery

1. Verify that the Rule Template was set to Test or Active state and was assigned to the correct Execution Trigger.
2. Verify the conditions of the Rule Template were properly set and the provisioned routing or/and mediation data matches the incoming message.
3. Also verify that Alarm 25000 - Rule Template failed to be updated (refer to the *DSR Alarms and KPIs Reference* for details about this alarm) is not raised.

3.10.3 CAPM_Action_Set_Fails

Measurement ID

16502

Measurement Group

CAPM

Measurement Type

Simple

Measurement Dimension

Arrayed by Rule Template ID

Description

Indicates the number of times a failure has occurred while executing the action set. This counter is incremented on a per Rule Template basis every time some of the actions fails.

**Note:**

This counter is incremented only once even if several actions within an action set have failed.

Collection Interval

5 min

Peg Condition

At least one action within an Action Set has failed.

Measurement Scope

Server Group

Recovery

- Verify that the actions are set correctly, there are enough system resources to perform the actions, and the actions refer to the part of the incoming message that is available.

3.10.4 CAPM_Match_Rule

Measurement ID

16504

Measurement Group

CAPM

Measurement Type

Simple

Measurement Dimension

Arrayed (by Mediation Rule Template ID)

Description

The array of measurements for pegged rules. An element of the array shows how many times a rule matched on an MP.

Collection Interval

5 min

Peg Condition

Each time the MessageCopy action has been invoked successfully.

Measurement Scope

Server Group

Recovery

- No action required.

3.10.5 CAPM_MsgCopyTriggered

Measurement ID

16600

Measurement Group

CAPM

Measurement Type

Simple

Measurement Dimension

Arrayed by Template Name

Description

The number of times the MessageCopy action has been invoked successfully.

Collection Interval

5 min

Peg Condition

Each time the MessageCopy action has been invoked successfully.

Measurement Scope

Server Group

Recovery

- No action required.

3.10.6 CAPM_RxRejectWithErrorAnswer

Measurement ID

16601

Measurement Group

CAPM

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The number of Request messages from a downstream peer rejected by a Local Node when an indication from mediation to send back an error answer is received

Collection Interval

5 min

Peg Condition

When mediation indicates to send back an answer

Measurement Scope

Server Group

Recovery

- No action required.

3.10.7 CAPM_RxSilentDiscard

Measurement ID

16602

Measurement Group

CAPM

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The number of Request messages from a downstream peer silently by a Local Node when an indication from mediation to discard the request is received

Collection Interval

5 min

Peg Condition

When mediation indicates to silently discard the request

Measurement Scope

Server Group

Recovery

- No action required.

3.10.8 CAPM_RxRedirectHost

Measurement ID

16603

Measurement Group

CAPM

Measurement Type

Simple

Measurement Dimension

Arrayed by Diameter Connection ID

Description

The number of times the Request was redirected with the 3006 response sent by Mediation

Collection Interval

5 min

Peg Condition

When the action "Redirect Request-Host" successfully executes

Measurement Scope

Site

Recovery

- No action required.

3.10.9 CAPM_RxRedirectRealm

Measurement ID

16604

Measurement Group

CAPM

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The number of times the Request was redirected with the 3011 response sent by Mediation

Collection Interval

5 min

Peg Condition

When the action "Redirect Request-Realm" successfully executes

Measurement Scope

Site

Recovery

- No action required.

3.10.10 CAPM_RxProcessNAI

Measurement ID

16605

Measurement Group

CAPM

Measurement Type

Simple

Measurement Dimension

Arrayed by Template Name

Description

The number of times the Request was modified by the "Process Decorated NAI" Mediation action

Collection Interval

5 min

Peg Condition

When the action "Process Decorated NAI" successfully executes

Measurement Scope

Site

Recovery

- No action required.

3.10.11 CAPM_MediationCustomMeasurements

Measurement ID

16505

Measurement Group

CAPM

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Group of measurements that are pegged by the mediation action "Peg Counter".

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action required.

3.11 Connection Congestion measurements

The Connection Congestion measurement report contains per-connection measurements related to Diameter Connection congestion states. Measurements in this group include:

- Congestion Level-X time duration
- Number of times entered Congestion Level-X
- Number of times Remote Busy Congestion occurred

3.11.1 RxRejectedConnCongestion

Measurement ID

10004

Measurement Group

Connection Congestion

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

Number of Request messages from a downstream peer rejected by a Local Node because of Diameter Connection Congestion.

Collection Interval

5 min

Peg Condition

Each time an ingress transaction is abandoned and the Routing Option Set "Connection Congestion" action is invoked.

Measurement Scope

Site

Recovery

- No action required.

3.12 Connection Exception measurements

The Connection Exception measurement report contains measurements that provide information about exceptions and unexpected messages and events for individual SCTP/TCP connections that are not specific to the Diameter protocol.

3.12.1 EvRxException

Measurement ID

18008

Measurement Group

Connection Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of connection ingress message processing exception events.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each EvRxException event, regardless of event reason or throttling.

Measurement Scope

Site

Recovery

- No action required.

3.12.2 EvTxException

Measurement ID

18009

Measurement Group

Connection Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Connection egress message processing exception events.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each EvTxException event, regardless of event reason or throttling.

Measurement Scope

Site

Recovery

- No action required.

3.13 Connection Performance measurements

The Connection Performance measurement report contains measurements that provide performance information for individual SCTP/TCP connections that are not specific to the Diameter protocol.

3.13.1 DclTxConnQueueAvg

Measurement ID

10224

Measurement Group

Connection Performance

Measurement Type

Average

Measurement Dimension

Arrayed (Connection ID)

Description

DCL egress connection message queue utilization average.

Collection Interval

5 min

Peg Condition

Output measurement of the DclTxConnQueue metric.

Measurement Scope

Site

Recovery

- No action required.

3.13.2 DclTxConnQueuePeak

Measurement ID

10223

Measurement Group

Connection Performance

Measurement Type

Max

Measurement Dimension

Arrayed (Connection ID)

Description

DCL egress connection message queue utilization peak.

Collection Interval

5 min

Peg Condition

Output measurement of the DclTxConnQueue metric.

Measurement Scope

Site

Recovery

- No action required.

3.13.3 EcCL1

Measurement ID

10524

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

Connection onset for egress message rate in congestion level 1.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each onset of CL1.

Measurement Scope

Site

Recovery

- No action required.

3.13.4 EcCL2

Measurement ID

10525

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

Connection onset for egress message rate in congestion level 2.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each onset of CL2.

Measurement Scope

Site

Recovery

- No action required.

3.13.5 EcCL3

Measurement ID

10526

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

Connection onset for egress message rate in congestion level 3.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each onset of CL3.

Measurement Scope

Site

Recovery

- No action required.

3.13.6 EcCL98

Measurement ID

10527

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

Connection onset for egress message rate in congestion level 98.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each onset of CL98.

Measurement Scope

Site

Recovery

- No action required.

3.13.7 EcRateAvg

Measurement ID

10193

Measurement Group

Connection Performance

Measurement Type

Average

Measurement Dimension

Arrayed (by Connection ID)

Description

Connection egress message rate average.

Collection Interval

5 min

Peg Condition

Output measurement of the EcRate metric.

Measurement Scope

Site

Recovery

- No action required.

3.13.8 EcRatePeak

Measurement ID

10192

Measurement Group

Connection Performance

Measurement Type

Max

Measurement Dimension

Arrayed (by Connection ID)

Description

Connection egress message rate peak.

Collection Interval

5 min

Peg Condition

Output measurement of the EcRate metric.

Measurement Scope

Site

Recovery

- No action required.

3.13.9 Ert

Measurement ID

18054

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Connection egress messages on routing egress.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each egress message during the Egress Routing phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.10 ErtDrop

Measurement ID

18044

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of DA-MP egress messages discarded or rejected by routing egress.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each egress message dropped during the Routing Egress phase.

The associated reasons can be found in this table:

Layer	Event	Reason
CSL	EvFsmOpState	StateChange (TransportCongestion)
	EvTxException	ConnUnavailable
DCL	EvTxException	DclTxConnQueueCongested DtIsMsgOversized
RCL	MpEvTxException	RclTxTaskQueueCongested
		EtrPoolCongested
		RadiusMsgPoolCongested
		SharedSecretUnavailable
		RadiusIdPoolCongested
		EvTxException

Layer	Event	Reason
		AnsOnClientConn
		ReqDuplicate

Measurement Scope

Site

Recovery

- No action required.

3.13.11 lc

Measurement ID

18053

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Connection ingress messages.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message during the Ingress Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.12 lcDrop

Measurement ID

18041

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Connection ingress messages discarded or rejected by ingress control.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message dropped during the Ingress Control phase.

The associated reasons can be found in this table:

Layer	Event	Reason
CSL	EvRxException	MaxMpsExceeded

Measurement Scope

Site

Recovery

- No action required.

3.13.13 IcDropP0

Measurement ID

18063

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

Connection ingress messages discarded or rejected by ingress control with priority 0.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message dropped during the Ingress Control phase with priority 0.

The associated reasons can be found in this table:

Layer	Event	Reason
CSL	EvRxException	MaxMpsExceeded

Measurement Scope

Site

Recovery

- No action required.

3.13.14 IcDropP1

Measurement ID

18064

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

Connection ingress messages discarded or rejected by ingress control with priority 1.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message dropped during the Ingress Control phase with priority 1.

The associated reasons can be found in this table:

Layer	Event	Reason
CSL	EvRxException	MaxMpsExceeded

Measurement Scope

Site

Recovery

- No action required.

3.13.15 IcDropP2

Measurement ID

18065

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

Connection ingress messages discarded or rejected by ingress control with priority 2.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message dropped during the Ingress Control phase with priority 2.

The associated reasons can be found in this table:

Layer	Event	Reason
CSL	EvRxException	MaxMpsExceeded

Measurement Scope

Site

Recovery

- No action required.

3.13.16 IcDropP3

Measurement ID

18066

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

Connection ingress messages discarded or rejected by ingress control with priority 3.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message dropped during the Ingress Control phase with priority 3.

The associated reasons can be found in this table:

Layer	Event	Reason
CSL	EvRxException	MaxMpsExceeded

Measurement Scope

Site

Recovery

- No action required.

3.13.17 IcDropP4

Measurement ID

18357

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection ingress messages discarded or rejected by ingress control with priority 4.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped during the Ingress Control phase with priority 4.

Measurement Scope

Site

Recovery

- No action required.

3.13.18 IcDropP5

Measurement ID

18358

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection ingress messages discarded or rejected by ingress control with priority 5.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped during the Ingress Control phase with priority 5.

Measurement Scope

Site

Recovery

- No action required.

3.13.19 IcDropP6

Measurement ID

18359

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection ingress messages discarded or rejected by ingress control with priority 6.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped during the Ingress Control phase with priority 6.

Measurement Scope

Site

Recovery

- No action required.

3.13.20 IcDropP7

Measurement ID

18360

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection ingress messages discarded or rejected by ingress control with priority 7.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped during the Ingress Control phase with priority 7.

Measurement Scope

Site

Recovery

- No action required.

3.13.21 lcDropP8

Measurement ID

18361

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection ingress messages discarded or rejected by ingress control with priority 8.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped during the Ingress Control phase with priority 8.

Measurement Scope

Site

Recovery

- No action required.

3.13.22 IcDropP9

Measurement ID

18362

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection ingress messages discarded or rejected by ingress control with priority 9.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped during the Ingress Control phase with priority 9.

Measurement Scope

Site

Recovery

- No action required.

3.13.23 IcDropP10

Measurement ID

18363

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection ingress messages discarded or rejected by ingress control with priority 10.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped during the Ingress Control phase with priority 10.

Measurement Scope

Site

Recovery

- No action required.

3.13.24 IcDropP11

Measurement ID

18364

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection ingress messages discarded or rejected by ingress control with priority 11.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped during the Ingress Control phase with priority 11.

Measurement Scope

Site

Recovery

- No action required.

3.13.25 IcDropP12

Measurement ID

18365

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection ingress messages discarded or rejected by ingress control with priority 12.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped during the Ingress Control phase with priority 12.

Measurement Scope

Site

Recovery

- No action required.

3.13.26 IcdropP13

Measurement ID

18366

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection ingress messages discarded or rejected by ingress control with priority 13.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped during the Ingress Control phase with priority 13.

Measurement Scope

Site

Recovery

- No action required.

3.13.27 IcDropP14

Measurement ID

18367

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection ingress messages discarded or rejected by ingress control with priority 14.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped during the Ingress Control phase with priority 14.

Measurement Scope

Site

Recovery

- No action required.

3.13.28 IcDropP15

Measurement ID

18368

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection ingress messages discarded or rejected by ingress control with priority 15.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped during the Ingress Control phase with priority 15.

Measurement Scope

Site

Recovery

- No action required.

3.13.29 IcRateAvg

Measurement ID

10500

Measurement Group

Connection Performance

Measurement Type

Average

Measurement Dimension

Arrayed (by Connection ID)

Description

Connection ingress message rate average.

Collection Interval

5 min

Peg Condition

Output measurement of the IcRate metric.

Measurement Scope

Site

Recovery

- No action required.

3.13.30 IcRatePeak

Measurement ID

10501

Measurement Group

Connection Performance

Measurement Type

Max

Measurement Dimension

Arrayed (by Connection ID)

Description

Connection ingress message rate peak.

Collection Interval

5 min

Peg Condition

Output measurement of the IcRate metric.

Measurement Scope

Site

Recovery

- No action required.

3.13.31 Irt

Measurement ID

18067

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

Connection ingress messages on routing ingress.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message during the Ingress Routing phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.32 IrtDrop

Measurement ID

18043

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Connection ingress messages discarded or rejected by routing ingress.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message dropped during the Routing Ingress phase.

The associated reasons can be found in this table:

Layer	Event	Reason	
CSL	MpEvRxException	DiamMsgPoolCongested	
		SigEvPoolCongested	
		DstMpUnknown	
		DstMpCongested	
		DrlReqQueueCongested	
		DrlAnsQueueCongested	
		ComAgentCongested	
RCL	MpEvRxException	RadiusMsgPoolCongested	
		RclRxTaskQueueCongested	
		RclSigEvPoolCongested	
		SharedSecretUnavailable	
		ItrPoolCongested	
		EvRxException	MsgAttrLenInvalid
			MsgAttrLenUnsupported
			AnsOrphaned
			AccessAuthMissing
	StatusAuthMissing		
	MsgAuthInvalid		
	ReqAuthInvalid		
	AnsAuthInvalid		
	MsgAttrAstUnsupported		
	ReqDuplicate		
	MsgTypeMissingMccs		
	ConnUnavailable		

Measurement Scope

Site

Recovery

- No action required.

3.13.33 OcDrop

Measurement ID

18042

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Connection ingress messages discarded or rejected by overload control.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message dropped during the Overload Control phase.

The associated reasons can be found in this table:

Layer	Event	Reason
CSL	MpEvRxException	CpuCongested

Measurement Scope

Site

Recovery

- No action required.

3.13.34 RadiusXactionFailAvg

Measurement ID

18234

Measurement Group

Connection Performance

Measurement Type

Average

Measurement Dimension

Single

Description

RADIUS connection transaction failure rate average.

Collection Interval

5 min

Peg Condition

The average RADIUS connection transaction failure rate sample taken during the collection interval.

Measurement Scope

Site

Recovery

- No action required.

3.13.35 RxAll

Measurement ID

10104

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of connection ingress messages (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message during the Rx phase (routable and peer-to-peer).

Measurement Scope

Site

Recovery

- No action required.

3.13.36 RxAllDrop

Measurement ID

10171

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension
Arrayed (by Connection ID)

Description
The number of Connection ingress messages dropped (routable and peer-to-peer).

Collection Interval
5 min

Peg Condition
This measurement is incremented for each ingress message dropped during the Rx phase (routable and peer-to-peer).
The associated reasons can be found in this table:

Layer	Event	Reason
DCL	EvRxException	MsgInvalid
RCL	EvRxException	MsgTypeUnsupported

Measurement Scope
Site

Recovery

- No action required.

3.13.37 RxAllLenAvg

Measurement ID
18036

Measurement Group
Connection Performance

Measurement Type
Average

Measurement Dimension
Arrayed (by Connection ID)

Description
Connection ingress message length average (routable and peer-to-peer).

Collection Interval
5 min

Peg Condition
This measurement is updated for each ingress message during the Rx phase (routable and peer-to-peer).

Measurement Scope
Site

Recovery

- No action required.

3.13.38 RxAllLenPeak

Measurement ID

18037

Measurement Group

Connection Performance

Measurement Type

Max

Measurement Dimension

Arrayed (by Connection ID)

Description

Connection ingress message length peak (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

This measurement is updated for each ingress message during the Rx phase (routable and peer-to-peer).

Measurement Scope

Site

Recovery

- No action required.

3.13.39 RxNgnPsAccepted

Measurement ID

18059

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

Connection ingress NGN-PS messages accepted.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress NGN-PS message accepted during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.40 RxNgnPsOffered

Measurement ID

18058

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

Connection ingress NGN-PS messages offered.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress NGN-PS message offered during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.41 RxP0

Measurement ID

18038

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Connection ingress messages with priority 0.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message with priority 0 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.42 RxP1

Measurement ID

18039

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Connection ingress messages with priority 1.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message with priority 1 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.43 RxP2

Measurement ID

18040

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Connection ingress messages with priority 2.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message with priority 2 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.44 RxP3

Measurement ID

10152

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Connection ingress messages with priority 3.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message with priority 3 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.45 RxP4

Measurement ID

18062

Measurement Group
Connection Performance

Measurement Type
Simple

Measurement Dimension
Arrayed (by Connection ID)

Description
Connection ingress messages with priority 4.

Collection Interval
5 min

Peg Condition
This measurement is incremented for each ingress message with priority 4 during the Message Priority phase.

Measurement Scope
Site

Recovery

- No action required.

3.13.46 RXP5

Measurement ID
18346

Measurement Group
Connection Performance

Measurement Type
Simple

Measurement Dimension
Arrayed by <Connection>

Description
The number of Connection ingress messages with priority 5.

Collection Interval
5 min

Peg Condition
This measurement is pegged for each ingress message with priority 5 during the Message Priority phase.

Measurement Scope
Site

Recovery

- No action required.

3.13.47 RxP6

Measurement ID

18347

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection ingress messages with priority 6.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 6 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.48 RxP7

Measurement ID

18348

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection ingress messages with priority 7.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 7 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.49 RxP8

Measurement ID

18349

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection ingress messages with priority 8.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 8 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.50 RxP9

Measurement ID

18350

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection ingress messages with priority 9.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 9 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.51 RxP10

Measurement ID

18351

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection ingress messages with priority 10.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 10 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.52 RxP11

Measurement ID

18352

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection ingress messages with priority 11.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 11 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.53 RxP12

Measurement ID

18353

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection ingress messages with priority 12.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 12 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.54 RxP13

Measurement ID

18354

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection ingress messages with priority 13.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 13 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.55 RxP14

Measurement ID

18355

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection ingress messages with priority 14.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 14 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.56 RxP15

Measurement ID

18356

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection ingress messages with priority 15.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 15 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.57 TmEcCL1

Measurement ID

10520

Measurement Group

Connection Performance

Measurement Type

Timer

Measurement Dimension

Arrayed (by Connection ID)

Description

Connection timer for egress message rate in congestion level 1.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each millisecond the connection is in CL1.

Measurement Scope

Site

Recovery

- No action required.

3.13.58 TmEcCL2

Measurement ID

10521

Measurement Group

Connection Performance

Measurement Type

Timer

Measurement Dimension

Arrayed (by Connection ID)

Description

Connection timer for egress message rate in congestion level 2.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each millisecond the connection is in CL2.

Measurement Scope

Site

Recovery

- No action required.

3.13.59 TmEcCL3

Measurement ID

10522

Measurement Group

Connection Performance

Measurement Type

Timer

Measurement Dimension

Arrayed (by Connection ID)

Description

Connection timer for egress message rate in congestion level 3.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each millisecond the connection is in CL3.

Measurement Scope

Site

Recovery

- No action required.

3.13.60 TmEcCL98

Measurement ID

10523

Measurement Group

Connection Performance

Measurement Type

Timer

Measurement Dimension

Arrayed (by Connection ID)

Description

Connection timer for egress message rate in congestion level 98.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each millisecond the connection is in CL98.

Measurement Scope

Site

Recovery

- No action required.

3.13.61 TxAll

Measurement ID

10100

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Connection egress messages (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

This measurement is incremented for each egress message during the Tx phase (routable and peer-to-peer).

Measurement Scope

Site

Recovery

- No action required.

3.13.62 TxAllDrop

Measurement ID

18050

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Connection egress messages dropped (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

This measurement is incremented for each egress message dropped during the Tx phase (routable and peer-to-peer).

The associated reasons can be found in this table:

Layer	Event	Reason
CSL	EvFsmOpState	StateChange (TransportCongestion)
	EvTxException	ConnUnavailable
RCL	EvTxException	WriteFailure

Measurement Scope

Site

Recovery

- No action required.

3.13.63 TxAllLenAvg

Measurement ID

18048

Measurement Group

Connection Performance

Measurement Type

Average

Measurement Dimension

Arrayed (by Connection ID)

Description

Connection egress message length average (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

This measurement is updated for each egress message during the Tx phase (routable and peer-to-peer).

Measurement Scope

Site

Recovery

- No action required.

3.13.64 TxAllLenPeak

Measurement ID

18049

Measurement Group

Connection Performance

Measurement Type

Max

Measurement Dimension

Arrayed (by Connection ID)

Description

Connection egress message length peak (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

This measurement is updated for each egress message during the Tx phase (routable and peer-to-peer).

Measurement Scope

Site

Recovery

- No action required.

3.13.65 TxP0

Measurement ID

18038

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Connection ingress messages with priority 0.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each egress message with priority 0 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.66 TxP1

Measurement ID

18046

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Connection egress messages with priority 1.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each egress message with priority 1 during the Tx phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.67 TxP2

Measurement ID

18047

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Connection egress messages with priority 2.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each egress message with priority 2 during the Tx phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.68 TxP3

Measurement ID

10154

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Connection egress messages with priority 3.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each egress message with priority 3 during the Tx phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.69 TxP4

Measurement ID

18068

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

Connection egress messages with priority 4.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each egress message with priority 4 during the Tx phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.70 TxP5

Measurement ID

18369

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection egress messages with priority 5.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each egress message with priority 5 during the Tx phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.71 TxP6

Measurement ID

18370

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection egress messages with priority 6.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each egress message with priority 6 during the Tx phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.72 TxP7

Measurement ID

18371

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection egress messages with priority 7.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each egress message with priority 7 during the Tx phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.73 TxP8

Measurement ID

18372

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection egress messages with priority 8.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each egress message with priority 8 during the Tx phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.74 TxP9

Measurement ID

18373

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection egress messages with priority 9.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each egress message with priority 9 during the Tx phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.75 TxP10

Measurement ID

18374

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection egress messages with priority 10.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each egress message with priority 10 during the Tx phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.76 TxP11

Measurement ID

18375

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection egress messages with priority 11.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each egress message with priority 11 during the Tx phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.77 TxP12

Measurement ID

18376

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection egress messages with priority 12.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each egress message with priority 12 during the Tx phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.78 TxP13

Measurement ID

18377

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection egress messages with priority 13.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each egress message with priority 13 during the Tx phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.79 TxP14

Measurement ID

18378

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection egress messages with priority 14.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each egress message with priority 14 during the Tx phase.

Measurement Scope

Site

Recovery

- No action required.

3.13.80 TxP15

Measurement ID

18379

Measurement Group

Connection Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <Connection>

Description

The number of Connection egress messages with priority 15.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each egress message with priority 15 during the Tx phase.

Measurement Scope

Site

Recovery

- No action required.

3.14 Connection Service measurements

3.14.1 EvException

Measurement ID

18007

Measurement Group

Connection Service

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

Connection exception events.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each EvException event, regardless of event reason or throttling.

Measurement Scope

Site

Recovery

- No action required.

3.14.2 EvFsmAdState

Measurement ID

18004

Measurement Group

Connection Service

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Connection FSM administrative state change events.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each EvFsmAdState event, regardless of event reason or throttling.

Measurement Scope

Site

Recovery

- No action required.

3.14.3 EvFsmException

Measurement ID

18006

Measurement Group

Connection Service

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Connection FSM exception events.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each EvFsmException event, regardless of event reason or throttling.

Measurement Scope

Site

Recovery

- No action required.

3.14.4 EvFsmOpState

Measurement ID

18005

Measurement Group

Connection Service

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Connection FSM operational state change events.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each EvFsmOpState event, regardless of event reason or throttling.

Measurement Scope

Site

Recovery

- No action required.

3.14.5 TmFsmOpStateAvailable

Measurement ID

10150

Measurement Group

Connection Service

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

Connection timer for operational state available.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each millisecond the connection is operationally available.

Measurement Scope

Site

Recovery

- No action required.

3.14.6 TmFsmOpStateDegraded

Measurement ID

10183

Measurement Group

Connection Service

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

Connection timer for operational state degraded.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each millisecond the connection is operationally degraded.

Measurement Scope

Site

Recovery

- No action required.

3.14.7 TmFsmOpStateUnavailable

Measurement ID

10182

Measurement Group

Connection Service

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

Connection timer for operational state unavailable.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each millisecond the connection is operationally unavailable.

Measurement Scope

Site

Recovery

- No action required.

3.15 Connection Transport measurements

The Connection Transport measurement report contains measurements that provide performance information that is specific to the DCL at the connection level.

3.15.1 RxBufAvg

Measurement ID

10106

Measurement Group

Connection Transport

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

Connection ingress buffer utilization average.

Collection Interval

5 min

Peg Condition

Output from Linux networking stack.

Measurement Scope

Site

Recovery

- No action required.

3.15.2 RxBufPeak

Measurement ID

10107

Measurement Group

Connection Transport

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

Connection ingress buffer utilization peak.

Collection Interval

5 min

Peg Condition

Output from Linux networking stack.

Measurement Scope

Site

Recovery

- No action required.

3.15.3 RxOctets

Measurement ID

10105

Measurement Group

Connection Transport

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Connection ingress octets.

Collection Interval

5 min

Peg Condition

This measurement is updated for each ingress message during the Rx phase (routable and peer-to-peer).

Measurement Scope

Site

Recovery

- No action required.

3.15.4 RxSctpChunk

Measurement ID

10516

Measurement Group

Connection Transport

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

SCTP total chunks on ingress.

Collection Interval

5 min

Peg Condition

Output from Linux networking stack.

Measurement Scope

Site

Recovery

- No action required.

3.15.5 RxSctpDupTsn

Measurement ID

10504

Measurement Group

Connection Transport

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

SCTP duplicate TSNs on ingress.

Collection Interval

5 min

Peg Condition

Output from Linux networking stack.

Measurement Scope

Site

Recovery

- No action required.

3.15.6 RxSctpGapAck

Measurement ID

10505

Measurement Group

Connection Transport

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

SCTP gap acknowledgement on ingress.

Collection Interval

5 min

Peg Condition

Output from Linux networking stack.

Measurement Scope

Site

Recovery

- No action required.

3.15.7 RxTcpDupPkt

Measurement ID

10508

Measurement Group

Connection Transport

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

TCP duplicate packets on ingress.

Collection Interval

5 min

Peg Condition

Output from Linux networking stack.

Measurement Scope

Site

Recovery

- No action required.

3.15.8 TxBufAvg

Measurement ID

10102

Measurement Group

Connection Transport

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

Connection egress buffer utilization average.

Collection Interval

5 min

Peg Condition

Output from Linux networking stack.



Note:

This measurement is not supported (always zero) for SCTP connections.

Measurement Scope

Site

Recovery

- No action required.

3.15.9 TxBufPeak

Measurement ID

10103

Measurement Group

Connection Transport

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

Connection egress buffer utilization peak.

Collection Interval

5 min

Peg Condition

Output from Linux networking stack.

**Note:**

This measurement is not supported (always zero) for SCTP connections.

Measurement Scope

Site

Recovery

- No action required.

3.15.10 TxOctets

Measurement ID

10101

Measurement Group

Connection Transport

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Connection egress octets.

Collection Interval

5 min

Peg Condition

This measurement is updated for each egress message during the Tx phase (routable and peer-to-peer).

Measurement Scope

Site

Recovery

- No action required.

3.15.11 TxSctpChunk

Measurement ID

10507

Measurement Group

Connection Transport

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

SCTP total chunks on egress.

Collection Interval

5 min

Peg Condition

Output from Linux networking stack.

Measurement Scope

Site

Recovery

- No action required.

3.15.12 TxSctpRtxChunk

Measurement ID

10506

Measurement Group

Connection Transport

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

SCTP retransmitted chunks on egress.

Collection Interval

5 min

Peg Condition

Output from Linux networking stack.

Measurement Scope

Site

Recovery

- No action required.

3.15.13 TxTcpRtxSeg

Measurement ID

10509

Measurement Group

Connection Transport

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

TCP retransmitted segments on egress.

Collection Interval

5 min

Peg Condition

Output from Linux networking stack.

Measurement Scope

Site

Recovery

- No action required.

3.16 DA-MP Exception measurements

3.16.1 MpEvRxException

Measurement ID

18002

Measurement Group

DA-MP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress message processing exception events.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each MpEvRxException event, regardless of event reason or throttling.

Measurement Scope

Site

Recovery

- No action required.

3.16.2 MpEvTxException

Measurement ID

18003

Measurement Group

DA-MP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP egress message processing exception events.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each MpEvTxException event, regardless of event reason or throttling.

Measurement Scope

Site

Recovery

- No action required.

3.17 DA-MP Performance measurements

The DA-MP measurement report contains measurements that provide performance information that is specific to the DCL at the DA-MP level.

3.17.1 DclTxTaskQueueAvg

Measurement ID

10217

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

DCL egress task message queue utilization average.

Collection Interval

5 min

Peg Condition

Output measurement of the DclTxTaskQueue metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.2 DclTxTaskQueuePeak

Measurement ID

10216

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

DCL egress task message queue utilization peak.

Collection Interval

5 min

Peg Condition

Output measurement of the DclTxTaskQueue metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.3 MpCpuAvg

Measurement ID

10204

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

DA-MP average CPU utilization by Diameter process.

Collection Interval

5 min

Peg Condition

Output measurement of the dsr.Cpu metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.4 MpCpuCL1

Measurement ID

10285

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

DA-MP onset for CPU utilization in congestion level 1.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each onset of CL1.

Measurement Scope

Site

Recovery

- No action required.

3.17.5 MpCpuCL2

Measurement ID

10287

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

DA-MP onset for CPU utilization in congestion level 2.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each onset of CL2.

Measurement Scope

Site

Recovery

- No action required.

3.17.6 MpCpuCL3

Measurement ID

10289

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

DA-MP onset for CPU utilization in congestion level 3.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each onset of CL3.

Measurement Scope

Site

Recovery

- No action required.

3.17.7 MpCpuPeak

Measurement ID

10203

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

DA-MP peak CPU utilization by Diameter process.

Collection Interval

5 min

Peg Condition

Output measurement of the dsr.Cpu metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.8 MpDiamAnsTimeAvg

Measurement ID

10198

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

Diameter answer message processing time average (ingress to egress).

Collection Interval

5 min

Peg Condition

Updated for each egress Diameter answer message during the Tx phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.9 MpDiamAnsTimePeak

Measurement ID

10199

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

Diameter answer message processing time peak (ingress to egress).

Collection Interval

5 min

Peg Condition

Updated for each egress Diameter answer message during the Tx phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.10 MpDiamMsgPoolAvg

Measurement ID

10209

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

DA-MP Diameter message pool utilization average.

Collection Interval

5 min

Peg Condition

Output measurement of the MpDiamMsgPool metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.11 MpDiamMsgPoolPeak

Measurement ID

10208

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

DA-MP Diameter message pool utilization peak.

Collection Interval

5 min

Peg Condition

Output measurement of the MpDiamMsgPool metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.12 MpDiamReqTimeAvg

Measurement ID

10196

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

Diameter request message processing time average (ingress to egress).

Collection Interval

5 min

Peg Condition

Updated for each egress Diameter request message during the Tx phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.13 MpDiamReqTimePeak

Measurement ID

10197

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

Diameter request message processing time peak (ingress to egress).

Collection Interval

5 min

Peg Condition

Updated for each egress Diameter request message during the Tx phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.14 MpErt

Measurement ID

18030

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP egress messages on routing egress.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each egress message during the Egress Routing phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.15 MpErtDrop

Measurement ID

18031

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP egress messages discarded or rejected by routing egress.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each egress message dropped during the Routing Egress phase.

The associated reasons can be found in this table:

Layer	Event	Reason	
CSL	MpEvTxException	ConnUnknown	
	EvFsmOpState	StateChange (TransportCongestion)	
	EvTxException	ConnUnavailable	
DCL	MpEvTxException	DclTxTaskQueueCongested	
	EvTxException	DclTxConnQueueCongested	
		DtlsMsgOversized	
RCL	MpEvTxException	RclTxTaskQueueCongested	
		EtrPoolCongested	
		RadiusMsgPoolCongested	
		SharedSecretUnavailable	
		RadiusIdPoolCongested	
		EvTxException	MsgAttrLenUnsupported
		MsgTypeUnsupported	
		MsgLenInvalid	
		AnsOnClientConn	
	ReqDuplicate		

Measurement Scope

Site

Recovery

- No action required.

3.17.16 Mplc

Measurement ID

18051

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress messages.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message during the Ingress Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.17 MplcDrop

Measurement ID

18018

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress messages discarded or rejected by ingress control.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message dropped during the Ingress Control phase.

The associated reasons can be found in this table:

Layer	Event	Reason
CSL	MpEvRxException	MaxMpsExceeded
	EvRxException	MaxMpsExceeded

Measurement Scope

Site

Recovery

- No action required.

3.17.18 MplcPOG

Measurement ID

18011

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress messages with priority 0 and color green.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message with priority 0 and color green during the Ingress Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.19 MplcPOY

Measurement ID

18014

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress messages with priority 0 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message with priority 0 and color yellow during the Ingress Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.20 MplcP1G

Measurement ID

18012

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress messages with priority 1 and color green.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message with priority 1 and color green during the Ingress Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.21 MplcP1Y

Measurement ID

18015

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress messages with priority 1 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message with priority 1 and color yellow during the Ingress Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.22 MplcP2G

Measurement ID

18013

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress messages with priority 2 and color green.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message with priority 2 and color green during the Ingress Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.23 MplcP2Y

Measurement ID

18016

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress messages with priority 2 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message with priority 2 and color yellow during the Ingress Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.24 MplcP3G

Measurement ID

18017

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

DA-MP ingress messages with priority 3 and color green.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message with priority 3 and color green during the Ingress Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.25 MplcP3Y

Measurement ID

18056

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

DA-MP ingress messages with priority 3 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message with priority 3 and color yellow during the Ingress Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.26 MplcP4G

Measurement ID

18055

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

DA-MP ingress messages with priority 4 and color green.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message with priority 4 and color green during the Ingress Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.27 MplcP4Y

Measurement ID

18057

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

DA-MP ingress messages with priority 4 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message with priority 4 and color yellow during the Ingress Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.28 MplcP5G

Measurement ID

18300

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages with priority 5 and color green.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 5 and color green during the Ingress Control phase

Measurement Scope

Site

Recovery

- No action required.

3.17.29 MplcP5Y

Measurement ID

18311

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages with priority 5 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 5 and color yellow during the Ingress Control phase

Measurement Scope

Site

Recovery

- No action required.

3.17.30 MplcP6G

Measurement ID

18301

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages with priority 6 and color green.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 6 and color green during the Ingress Control phase

Measurement Scope

Site

Recovery

- No action required.

3.17.31 MplcP6Y

Measurement ID

18312

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages with priority 6 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 6 and color yellow during the Ingress Control phase

Measurement Scope

Site

Recovery

- No action required.

3.17.32 MplcP7G

Measurement ID

18302

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages with priority 7 and color green.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 7 and color green during the Ingress Control phase

Measurement Scope

Site

Recovery

- No action required.

3.17.33 MplcP7Y

Measurement ID

18313

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages with priority 7 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 7 and color yellow during the Ingress Control phase

Measurement Scope

Site

Recovery

- No action required.

3.17.34 MplcP8G

Measurement ID

18303

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages with priority 8 and color green.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 8 and color green during the Ingress Control phase

Measurement Scope

Site

Recovery

- No action required.

3.17.35 MplcP8Y

Measurement ID

18314

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages with priority 8 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 8 and color yellow during the Ingress Control phase

Measurement Scope

Site

Recovery

- No action required.

3.17.36 MplcP9G

Measurement ID

18304

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages with priority 9 and color green.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 9 and color green during the Ingress Control phase

Measurement Scope

Site

Recovery

- No action required.

3.17.37 MplcP9Y

Measurement ID

18315

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages with priority 9 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 9 and color yellow during the Ingress Control phase

Measurement Scope

Site

Recovery

- No action required.

3.17.38 MplcP10G

Measurement ID

18305

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages with priority 10 and color green.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 10 and color green during the Ingress Control phase

Measurement Scope

Site

Recovery

- No action required.

3.17.39 MplcP10Y

Measurement ID

18316

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages with priority 10 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 10 and color yellow during the Ingress Control phase

Measurement Scope

Site

Recovery

- No action required.

3.17.40 MplcP11G

Measurement ID

18306

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages with priority 11 and color green.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 11 and color green during the Ingress Control phase

Measurement Scope

Site

Recovery

- No action required.

3.17.41 MplcP11Y

Measurement ID

18317

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages with priority 11 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 11 and color yellow during the Ingress Control phase

Measurement Scope

Site

Recovery

- No action required.

3.17.42 MplcP12G

Measurement ID

18307

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages with priority 12 and color green.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 12 and color green during the Ingress Control phase

Measurement Scope

Site

Recovery

- No action required.

3.17.43 MplcP12Y

Measurement ID

18318

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages with priority 12 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 12 and color yellow during the Ingress Control phase

Measurement Scope

Site

Recovery

- No action required.

3.17.44 MplcP13G

Measurement ID

18308

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages with priority 13 and color green.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 13 and color green during the Ingress Control phase

Measurement Scope

Site

Recovery

- No action required.

3.17.45 MplcP13Y

Measurement ID

18319

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages with priority 13 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 13 and color yellow during the Ingress Control phase

Measurement Scope

Site

Recovery

- No action required.

3.17.46 MplcP14G

Measurement ID

18309

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages with priority 14 and color green.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 14 and color green during the Ingress Control phase

Measurement Scope

Site

Recovery

- No action required.

3.17.47 MplcP14Y

Measurement ID

18320

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages with priority 14 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 14 and color yellow during the Ingress Control phase

Measurement Scope

Site

Recovery

- No action required.

3.17.48 MplcP15G

Measurement ID

18310

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages with priority 15 and color green.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 15 and color green during the Ingress Control phase

Measurement Scope

Site

Recovery

- No action required.

3.17.49 MplcP15Y

Measurement ID

18321

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages with priority 15 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message with priority 15 and color yellow during the Ingress Control phase

Measurement Scope

Site

Recovery

- No action required.

3.17.50 Mplrt

Measurement ID

10247

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress messages on routing ingress.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message during the Routing Ingress phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.51 MplrtDrop

Measurement ID

18029

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress messages discarded or rejected by routing ingress.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message dropped during the Routing Ingress phase.

The associated reasons can be found in this table:

Layer	Event	Reason
CSL	MpEvRx Exception	DiamMsgPoolCongested
		SigEvPoolCongested
		DstMpUnknown
		DstMpCongested
		DrIReqQueueCongested
		DrIAAnsQueueCongested
		ComAgentCongested
		RCL
RclRxTaskQueueCongested		
RclSigEvPoolCongested		
SharedSecretUnavailable		
ItrPoolCongested		

Layer	Event	Reason
	EvRxException	MsgAttrLenInvalid MsgAttrLenUnsupported AnsOrphaned AccessAuthMissing StatusAuthMissing MsgAuthInvalid ReqAuthInvalid AnsAuthInvalid MsgAttrAstUnsupported ReqDuplicate MsgTypeMissingMccs ConnUnavailable

Measurement Scope

Site

Recovery

- No action required.

3.17.52 MpMemCL1

Measurement ID

14151

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

DA-MP onset for memory utilization in congestion level 1.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each onset of CL1.

Measurement Scope

Site

Recovery

- No action required.

3.17.53 MpMemCL2

Measurement ID

14153

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

DA-MP onset for memory utilization in congestion level 2.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each onset of CL2.

Measurement Scope

Site

Recovery

- No action required.

3.17.54 MpMemCL3

Measurement ID

14155

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

DA-MP onset for memory utilization in congestion level 3.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each onset of CL3.

Measurement Scope

Site

Recovery

- No action required.

3.17.55 MpNgnPsXactionFailPeersAvg

Measurement ID

18076

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

DA-MP NGN-PS transaction failure rate by peers average.

Collection Interval

5 min

Peg Condition

Placeholder measurement of the MpNgnPsXactionFailPeers metric. This metric is the ratio of the number of non-2xx NGN-PS Answers received from Peer / Number of NGN-PS messages Accepted by DSR.

Measurement Scope

Site

Recovery

- No action required.

3.17.56 MpNgnPsXactionPassAvg

Measurement ID

18075

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

DA-MP NGN-PS transaction success rate average.

Collection Interval

5 min

Peg Condition

Placeholder measurement of the MpNgnPsXactionPass metric. This metric is the ratio of the number of 2xx NGN-PS Answers sent to Peer/Number of NGN-PS messages Accepted by DSR.

Measurement Scope

Site

Recovery

- No action required.

3.17.57 MpOc

Measurement ID

18079

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP messages offered to overload control

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message during the Overload Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.58 MpOcDrop

Measurement ID

18052

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress messages discarded or rejected by overload control.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message dropped during the Overload Control phase.

The associated reasons can be found in this table:

Layer	Event	Reason
CSL	MpEvRxException	CpuCongested
	MpEvRxException	MaxMpsExceeded

Measurement Scope

Site

Recovery

- No action required.

3.17.59 MpOcDropP0G

Measurement ID

10276

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 0 and color green.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message dropped with priority 0 and color green during the Overload Control phase.

The associated reasons can be found in this table:

Layer	Event	Reason
CSL	MpEvRxException	CpuCongested
	MpEvRxException	MaxMpsExceeded

Measurement Scope

Site

Recovery

- No action required.

3.17.60 MpOcDropP0Y

Measurement ID

10277

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 0 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message dropped with priority 0 and color yellow during the Overload Control phase.

The associated reasons can be found in this table:

Layer	Event	Reason
CSL	MpEvRxException	CpuCongested
	MpEvRxException	MaxMpsExceeded

Measurement Scope

Site

Recovery

- No action required.

3.17.61 MpOcDropP1G

Measurement ID

10278

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 1 and color green.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message dropped with priority 1 and color green during the Overload Control phase.

The associated reasons can be found in this table:

Layer	Event	Reason
CSL	MpEvRxException	CpuCongested
	MpEvRxException	MaxMpsExceeded

Measurement Scope

Site

Recovery

- No action required.

3.17.62 MpOcDropP1Y

Measurement ID

10279

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 1 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message dropped with priority 1 and color yellow during the Overload Control phase. The associated reasons can be found in this table:

Layer	Event	Reason
CSL	MpEvRxException	CpuCongested
	MpEvRxException	MaxMpsExceeded

Measurement Scope

Site

Recovery

- No action required.

3.17.63 MpOcDropP2G

Measurement ID

10280

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 2 and color green.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message dropped with priority 2 and color green during the Overload Control phase. The associated reasons can be found in this table:

Layer	Event	Reason
CSL	MpEvRxException	CpuCongested
	MpEvRxException	MaxMpsExceeded

Measurement Scope

Site

Recovery

- No action required.

3.17.64 MpOcDropP2Y

Measurement ID

10281

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 2 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message dropped with priority 2 and color yellow during the Overload Control phase.

The associated reasons can be found in this table:

Layer	Event	Reason
CSL	MpEvRxException	CpuCongested
	MpEvRxException	MaxMpsExceeded

Measurement Scope

Site

Recovery

- No action required.

3.17.65 MpOcDropP3G

Measurement ID

18077

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 3 and color green.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message dropped with priority 3 and color green during the Overload Control phase.

The associated reasons can be found in this table:

Layer	Event	Reason
CSL	MpEvRxException	CpuCongested
	MpEvRxException	MaxMpsExceeded

Measurement Scope

Site

Recovery

- No action required.

3.17.66 MpOcDropP3Y

Measurement ID

18078

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 3 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message dropped with priority 3 and color yellow during the Overload Control phase.

The associated reasons can be found in this table:

Layer	Event	Reason
CSL	MpEvRxException	CpuCongested
	MpEvRxException	MaxMpsExceeded

Measurement Scope

Site

Recovery

- No action required.

3.17.67 MpOcDropP4G

Measurement ID

18322

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 4 and color green

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped with priority 4 and color green during the Overload Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.68 MpOcDropP4Y

Measurement ID

18334

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 4 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped with priority 4 and color green during the Overload Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.69 MpOcDropP5G

Measurement ID

18323

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 5 and color green

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped with priority 5 and color green during the Overload Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.70 MpOcDropP5Y

Measurement ID

18335

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 5 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped with priority 5 and color yellow during the Overload Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.71 MpOcDropP6G

Measurement ID

18324

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 6 and color green

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped with priority 6 and color green during the Overload Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.72 MpOcDropP6Y

Measurement ID

18336

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 6 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped with priority 6 and color yellow during the Overload Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.73 MpOcDropP7G

Measurement ID

18325

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 7 and color green

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped with priority 7 and color green during the Overload Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.74 MpOcDropP7Y

Measurement ID

18337

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 7 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped with priority 7 and color yellow during the Overload Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.75 MpOcDropP8G

Measurement ID

18326

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 8 and color green

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped with priority 8 and color green during the Overload Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.76 MpOcDropP8Y

Measurement ID

18338

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 8 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped with priority 8 and color yellow during the Overload Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.77 MpOcDropP9G

Measurement ID

18327

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 9 and color green

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped with priority 9 and color green during the Overload Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.78 MpOcDropP9Y

Measurement ID

18339

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 9 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped with priority 9 and color yellow during the Overload Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.79 MpOcDropP10G

Measurement ID

18328

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 10 and color green

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped with priority 10 and color green during the Overload Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.80 MpOcDropP10Y

Measurement ID

18340

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 10 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped with priority 10 and color yellow during the Overload Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.81 MpOcDropP11G

Measurement ID

18329

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 11 and color green

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped with priority 11 and color green during the Overload Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.82 MpOcDropP11Y

Measurement ID

18341

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 11 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped with priority 11 and color yellow during the Overload Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.83 MpOcDropP12G

Measurement ID

18330

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 12 and color green

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped with priority 12 and color green during the Overload Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.84 MpOcDropP12Y

Measurement ID

18342

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 12 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped with priority 12 and color yellow during the Overload Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.85 MpOcDropP13G

Measurement ID

18331

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 13 and color green

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped with priority 13 and color green during the Overload Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.86 MpOcDropP13Y

Measurement ID

18343

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 13 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped with priority 13 and color yellow during the Overload Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.87 MpOcDropP14G

Measurement ID

18332

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 14 and color green

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped with priority 14 and color green during the Overload Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.88 MpOcDropP14Y

Measurement ID

18344

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 14 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped with priority 14 and color yellow during the Overload Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.89 MpOcDropP15G

Measurement ID

18333

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 15 and color green

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped with priority 15 and color green during the Overload Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.90 MpOcDropP15Y

Measurement ID

18345

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress messages discarded or rejected by overload control with priority 15 and color yellow.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message dropped with priority 15 and color yellow during the Overload Control phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.91 MpOcRateAvgP0

Measurement ID

18019

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

DA-MP ingress message rate average offered to overload control with priority 0.

Collection Interval

5 min

Peg Condition

Output measurement of the MpOcRateP0 metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.92 MpOcRateAvgP0G

Measurement ID

18023

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

DA-MP ingress message rate average offered to overload control with priority 0 and color green.

Collection Interval

5 min

Peg Condition

Output measurement of the MpOcRateP0G metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.93 MpOcRateAvgP0Y

Measurement ID

18026

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

DA-MP ingress message rate average offered to overload control with priority 0 and color yellow.

Collection Interval

5 min

Peg Condition

Output measurement of the MpOcRateP0Y metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.94 MpOcRateAvgP1

Measurement ID

18020

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

DA-MP ingress message rate average offered to overload control with priority 1.

Collection Interval

5 min

Peg Condition

Output measurement of the MpOcRateP1 metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.95 MpOcRateAvgP1G

Measurement ID

18024

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

DA-MP ingress message rate average offered to overload control with priority 1 and color green.

Collection Interval

5 min

Peg Condition

Output measurement of the MpOcRateP1G metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.96 MpOcRateAvgP1Y

Measurement ID

18027

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

DA-MP ingress message rate average offered to overload control with priority 1 and color yellow.

Collection Interval

5 min

Peg Condition

Output measurement of the MpOcRateP1Y metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.97 MpOcRateAvgP2

Measurement ID

18021

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

DA-MP ingress message rate average offered to overload control with priority 2.

Collection Interval

5 min

Peg Condition

Output measurement of the MpOcRateP2 metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.98 MpOcRateAvgP2G

Measurement ID

18025

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

DA-MP ingress message rate average offered to overload control with priority 2 and color green.

Collection Interval

5 min

Peg Condition

Output measurement of the MpOcRateP2G metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.99 MpOcRateAvgP2Y

Measurement ID

18028

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

DA-MP ingress message rate average offered to overload control with priority 2 and color yellow.

Collection Interval

5 min

Peg Condition

Output measurement of the MpOcRateP2Y metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.100 MpOcRateAvgP3

Measurement ID

18022

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

DA-MP ingress message rate average offered to overload control with priority 3.

Collection Interval

5 min

Peg Condition

Output measurement of the MpOcRateP3 metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.101 MpOcRatePeakP0

Measurement ID

10266

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

DA-MP ingress message rate peak offered to overload control with priority 0.

Collection Interval

5 min

Peg Condition

Output measurement of the MpOcRateP0 metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.102 MpOcRatePeakP0G

Measurement ID

10267

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

DA-MP ingress message rate peak offered to overload control with priority 0 and color green.

Collection Interval

5 min

Peg Condition

Output measurement of the MpOcRateP0G metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.103 MpOcRatePeakP0Y

Measurement ID

10268

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

DA-MP ingress message rate peak offered to overload control with priority 0 and color yellow.

Collection Interval

5 min

Peg Condition

Output measurement of the MpOcRateP0Y metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.104 MpOcRatePeakP1

Measurement ID

10269

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

DA-MP ingress message rate peak offered to overload control with priority 1.

Collection Interval

5 min

Peg Condition

Output measurement of the MpOcRateP1 metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.105 MpOcRatePeakP1G

Measurement ID

10270

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

DA-MP ingress message rate peak offered to overload control with priority 1 and color green.

Collection Interval

5 min

Peg Condition

Output measurement of the MpOcRateP1G metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.106 MpOcRatePeakP1Y

Measurement ID

10271

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

DA-MP ingress message rate peak offered to overload control with priority 1 and color yellow.

Collection Interval

5 min

Peg Condition

Output measurement of the MpOcRateP1Y metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.107 MpOcRatePeakP2

Measurement ID

10272

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

DA-MP ingress message rate peak offered to overload control with priority 2.

Collection Interval

5 min

Peg Condition

Output measurement of the MpOcRateP2 metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.108 MpOcRatePeakP2G

Measurement ID

10273

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

DA-MP ingress message rate peak offered to overload control with priority 2 and color green.

Collection Interval

5 min

Peg Condition

Output measurement of the MpOcRateP2G metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.109 MpOcRatePeakP2Y

Measurement ID

10274

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

DA-MP ingress message rate peak offered to overload control with priority 2 and color yellow.

Collection Interval

5 min

Peg Condition

Output measurement of the MpOcRateP2Y metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.110 MpOcRatePeakP3

Measurement ID

10275

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

DA-MP ingress message rate peak offered to overload control with priority 3.

Collection Interval

5 min

Peg Condition

Output measurement of the MpOcRateP3 metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.111 MpRadiusAnsTimeAvg

Measurement ID

18226

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

RADIUS answer message processing time average (ingress to egress).

Collection Interval

5 min

Peg Condition

This measurement is pegged when a routable RADIUS Response message is sent to a RADIUS Peer Node on a connection.

The DSR holding time starts when a Signaling-Data Stack Event is initially allocated for the message and the stop time occurs when the message is sent on a socket.

Measurement Scope

Site

Recovery

- No action required.

3.17.112 MpRadiusAnsTimePeak

Measurement ID

18227

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

RADIUS answer message processing time peak (ingress to egress).

Collection Interval

5 min

Peg Condition

This measurement is pegged when the hold time of a routable RADIUS Response message sent to a RADIUS Peer Node on a connection is larger than any other message sent to a RADIUS Peer Node hold time during the reporting interval.

The DSR holding time starts when a Signaling-Data Stack Event is initially allocated for the message and the stop time occurs when the message is sent on a socket.

Measurement Scope

Site

Recovery

- No action required.

3.17.113 MpRadiusMsgPoolAvg

Measurement ID

18228

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

DA-MP RADIUS message pool utilization average.

Collection Interval

5 min

Peg Condition

The average of all RADIUS PDU Buffer Pool utilization samples taken during the collection interval.

Measurement Scope

Site

Recovery

- No action required.

3.17.114 MpRadiusMsgPoolPeak

Measurement ID

18229

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

DA-MP RADIUS message pool utilization peak.

Collection Interval

5 min

Peg Condition

The maximum RADIUS PDU Buffer Pool utilization sample taken during the collection interval.

Measurement Scope

Site

Recovery

- No action required.

3.17.115 MpRadiusReqTimeAvg

Measurement ID

18224

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

RADIUS request message processing time average (ingress to egress).

Collection Interval

5 min

Peg Condition

This measurement is pegged when a routable RADIUS Request message is sent to a RADIUS Peer Node on a connection. The DSR holding time starts when a Signaling-Data Stack Event is initially allocated for the message and the stop time occurs when the message is sent on a socket.

Measurement Scope

Site

Recovery

- No action required.

3.17.116 MpRadiusReqTimePeak

Measurement ID

18225

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

RADIUS request message processing time peak (ingress to egress).

Collection Interval

5 min

Peg Condition

This measurement is pegged when the hold time of a routable RADIUS Request message sent to a RADIUS Peer Node on a connection is larger than any other message sent to a RADIUS Peer Node hold time during the reporting interval. The DSR holding time starts when a Signaling-Data Stack Event is initially allocated for the message and the stop time occurs when the message is sent on a socket.

Measurement Scope

Site

Recovery

- No action required.

3.17.117 MpRxAll

Measurement ID

10244

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress messages (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message during the Rx phase (routable and peer-to-peer).

Measurement Scope

Site

Recovery

- No action required.

3.17.118 MpRxAllDrop

Measurement ID

18010

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress messages dropped (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress message dropped during the Rx phase (routable and peer-to-peer).

The associated reasons can be found in this table:

Layer	Event	Reason
DCL	EvRxException	MsgInvalid
RCL	MpEvRxException	MsgMalformed
		PeerUnknown
		RadiusMsgPoolCongested

Measurement Scope

Site

Recovery

- No action required.

3.17.119 MpRxAllRateAvg

Measurement ID

10202

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

DA-MP ingress message rate average (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

Output measurement of the MpRxAllRate metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.120 MpRxAllRatePeak

Measurement ID

10201

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

DA-MP ingress message rate peak (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

Output measurement of the MpRxAllRate metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.121 MpRxDiamAll

Measurement ID

18100

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

DA-MP ingress Diameter messages (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

Incremented for each ingress Diameter message during the Rx phase (routable and peer-to-peer).

Measurement Scope

Site

Recovery

- No action required.

3.17.122 MpRxDiamAllLen

Measurement ID

10135

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Bucket)

Description

DA-MP ingress Diameter message length (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

Updated for each ingress Diameter message during the Rx phase (routable and peer-to-peer).

Measurement Scope

Site

Recovery

- No action required.

3.17.123 MpRxDiamAllLenAvg

Measurement ID

10133

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

DA-MP ingress Diameter message length (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

Updated for each ingress Diameter message during the Rx phase (routable and peer-to-peer).

Measurement Scope

Site

Recovery

- No action required.

3.17.124 MpRxDiamAllLenPeak

Measurement ID

10134

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

DA-MP ingress Diameter message length (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

Updated for each ingress Diameter message during the Rx phase (routable and peer-to-peer).

Measurement Scope

Site

Recovery

- No action required.

3.17.125 MpRxDiamAllRateAvg

Measurement ID

18101

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

DA-MP ingress Diameter message rate average (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

Output measurement of the MpRxDiamAllRate metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.126 MpRxDiamAllRatePeak

Measurement ID

18102

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

DA-MP ingress Diameter message rate peak (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

Output measurement of the MpRxDiamAllRate metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.127 MpRxDiamP0

Measurement ID

18103

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

DA-MP ingress Diameter messages with priority 0.

Collection Interval

5 min

Peg Condition

Incremented for each ingress Diameter message with priority 0 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.128 MpRxDiamP1

Measurement ID

18104

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

DA-MP ingress Diameter messages with priority 1.

Collection Interval

5 min

Peg Condition

Incremented for each ingress Diameter message with priority 1 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.129 MpRxDiamP2

Measurement ID

18105

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

DA-MP ingress Diameter messages with priority 2.

Collection Interval

5 min

Peg Condition

Incremented for each ingress Diameter message with priority 2 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.130 MpRxDiamP3

Measurement ID

10132

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

DA-MP ingress Diameter messages with priority 3.

Collection Interval

5 min

Peg Condition

Incremented for each ingress Diameter message with priority 3 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.131 MpRxDiamP4

Measurement ID

18112

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

DA-MP ingress Diameter messages with priority 4.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress Diameter message with priority 4 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.132 MpRxDiamP5

Measurement ID

18114

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress Diameter messages with priority 5.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress Diameter message with priority 5 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.133 MpRxDiamP6

Measurement ID

18115

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress Diameter messages with priority 6.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress Diameter message with priority 6 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.134 MpRxDiamP7

Measurement ID

18116

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress Diameter messages with priority 7.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress Diameter message with priority 7 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.135 MpRxDiamP8

Measurement ID

18117

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress Diameter messages with priority 8.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress Diameter message with priority 8 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.136 MpRxDiamP9

Measurement ID

18118

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress Diameter messages with priority 9.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress Diameter message with priority 9 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.137 MpRxDiamP10

Measurement ID

18119

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress Diameter messages with priority 10.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress Diameter message with priority 10 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.138 MpRxDiamP11

Measurement ID

18120

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress Diameter messages with priority 11.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress Diameter message with priority 11 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.139 MpRxDiamP12

Measurement ID

18121

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress Diameter messages with priority 12.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress Diameter message with priority 12 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.140 MpRxDiamP13

Measurement ID

18122

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress Diameter messages with priority 13.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress Diameter message with priority 13 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.141 MpRxDiamP14

Measurement ID

18123

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress Diameter messages with priority 14.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress Diameter message with priority 14 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.142 MpRxDiamP15

Measurement ID

18124

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP ingress Diameter messages with priority 15.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress Diameter message with priority 15 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.143 MpRxNgnPsAccepted

Measurement ID

18072

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

DA-MP ingress NGN-PS messages accepted.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each ingress NGN-PS message accepted during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.144 MpRxNgnPsAcceptedRateAvg

Measurement ID

18073

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

DA-MP ingress NGN-PS messages accepted rate average.

Collection Interval

5 min

Peg Condition

Output measurement of the MpRxNgnPsAcceptedRate metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.145 MpRxNgnPsAcceptedRatePeak

Measurement ID

18074

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Arrayed (by DA-MP)

Description

DA-MP ingress NGN-PS messages accepted rate peak.

Collection Interval

5 min

Peg Condition

Output measurement of the MpRxNgnPsAcceptedRate metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.146 MpRxNgnPsOffered

Measurement ID

18069

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

DA-MP ingress NGN-PS messages offered.

Collection Interval

5 min

Peg Condition

Incremented for each ingress NGN-PS message offered during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.147 MpRxNgnPsOfferedRateAvg

Measurement ID

18070

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

DA-MP ingress NGN-PS messages offered rate average.

Collection Interval

5 min

Peg Condition

Output measurement of the MpRxNgnPsOfferedRate metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.148 MpRxNgnPsOfferedRatePeak

Measurement ID

18071

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Arrayed (by DA-MP)

Description

DA-MP ingress NGN-PS messages offered rate peak.

Collection Interval

5 min

Peg Condition

Output measurement of the MpRxNgnPsOfferedRate metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.149 MpRxRadiusAll

Measurement ID

18200

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress RADIUS messages (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message is received from a RADIUS Peer Node on a connection.

Measurement Scope

Site

Recovery

- No action required.

3.17.150 MpRxRadiusAllLen

Measurement ID

18203

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Bucket ID)

Description

DA-MP ingress RADIUS message length (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

This measurement is pegged immediately after reading a RADIUS message from a RADIUS connection socket and prior to any further processing.

 **Note:**

Each bucket in the array contains the number of PDUs whose RADIUS payload octets fell within the bucket's range during the measurement period.

[0] = less than 512 octets

[1] = 512 to 1023 octets

[2] = 1024 to 1535 octets

[3] = 1536 to 2047 octets

[4] = 2048 to 2559 octets

[5] = 2560 to 3071 octets

[6] = 3072 to 3583 octets

[7] = 3584 to 4096 octets

Measurement Scope

Site

Recovery

- No action required.

3.17.151 MpRxRadiusAllLenAvg

Measurement ID

18204

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

DA-MP ingress RADIUS message length average (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

This measurement is pegged immediately after reading a RADIUS message from a RADIUS connection socket and prior to any further processing.

Measurement Scope

Site

Recovery

- No action required.

3.17.152 MpRxRadiusAllLenPeak

Measurement ID

18205

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

DA-MP ingress RADIUS message length peak (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

This measurement is pegged immediately after reading a RADIUS message from a RADIUS connection socket and prior to any further processing. The measurement is pegged when the size of the RADIUS message received from any RADIUS Peer Node on a connection is larger than any other message received from any RADIUS Peer Node during the reporting interval.

Measurement Scope

Site

Recovery

- No action required.

3.17.153 MpRxRadiusAllAvg

Measurement ID

18201

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

DA-MP ingress RADIUS message rate average (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

Output measurement of the MpRxRadiusAllRate metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.154 MpRxRadiusAllPeak

Measurement ID

18202

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

DA-MP ingress RADIUS message rate peak (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

Output measurement of the MpRxRadiusAllRate metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.155 MpRxRadiusP0

Measurement ID

18206

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress RADIUS messages with priority 0.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message is received from any RADIUS Peer Node on a connection which is assigned a priority of 0.

Measurement Scope

Site

Recovery

- No action required.

3.17.156 MpRxRadiusP1

Measurement ID

18207

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress RADIUS messages with priority 1.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message is received from any RADIUS Peer Node on a connection which is assigned a priority of 1.

Measurement Scope

Site

Recovery

- No action required.

3.17.157 MpRxRadiusP2

Measurement ID

18208

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress RADIUS messages with priority 2.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message is received from any RADIUS Peer Node on a connection which is assigned a priority of 2.

Measurement Scope

Site

Recovery

- No action required.

3.17.158 MpRxRadiusP3

Measurement ID

18209

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress RADIUS messages with priority 3.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message is received from any RADIUS Peer Node on a connection which is assigned a priority of 3.

Measurement Scope

Site

Recovery

- No action required.

3.17.159 MpRxRadiusP3

Measurement ID

18209

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress RADIUS messages with priority 3.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message is received from any RADIUS Peer Node on a connection which is assigned a priority of 3.

Measurement Scope

Site

Recovery

- No action required.

3.17.160 MpRxRadiusP4

Measurement ID

18237

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress RADIUS messages with priority 4.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message is received from any RADIUS Peer Node on a connection which is assigned a priority of 4.

Measurement Scope

Site

Recovery

- No action required.

3.17.161 MpRxRadiusP5

Measurement ID

18238

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress RADIUS messages with priority 5.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message is received from any RADIUS Peer Node on a connection which is assigned a priority of 5.

Measurement Scope

Site

Recovery

- No action required.

3.17.162 MpRxRadiusP6

Measurement ID

18239

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress RADIUS messages with priority 6.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message is received from any RADIUS Peer Node on a connection which is assigned a priority of 6.

Measurement Scope

Site

Recovery

- No action required.

3.17.163 MpRxRadiusP7

Measurement ID

18240

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress RADIUS messages with priority 7.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message is received from any RADIUS Peer Node on a connection which is assigned a priority of 7.

Measurement Scope

Site

Recovery

- No action required.

3.17.164 MpRxRadiusP8

Measurement ID

18241

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress RADIUS messages with priority 8.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message is received from any RADIUS Peer Node on a connection which is assigned a priority of 8.

Measurement Scope

Site

Recovery

- No action required.

3.17.165 MpRxRadiusP9

Measurement ID

18242

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress RADIUS messages with priority 9.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message is received from any RADIUS Peer Node on a connection which is assigned a priority of 9.

Measurement Scope

Site

Recovery

- No action required.

3.17.166 MpRxRadiusP10

Measurement ID

18243

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress RADIUS messages with priority 10.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message is received from any RADIUS Peer Node on a connection which is assigned a priority of 10.

Measurement Scope

Site

Recovery

- No action required.

3.17.167 MpRxRadiusP11

Measurement ID

18244

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress RADIUS messages with priority 11.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message is received from any RADIUS Peer Node on a connection which is assigned a priority of 11.

Measurement Scope

Site

Recovery

- No action required.

3.17.168 MpRxRadiusP12

Measurement ID

18245

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress RADIUS messages with priority 12.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message is received from any RADIUS Peer Node on a connection which is assigned a priority of 12.

Measurement Scope

Site

Recovery

- No action required.

3.17.169 MpRxRadiusP13

Measurement ID

18246

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress RADIUS messages with priority 13.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message is received from any RADIUS Peer Node on a connection which is assigned a priority of 13.

Measurement Scope

Site

Recovery

- No action required.

3.17.170 MpRxRadiusP14

Measurement ID

18247

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress RADIUS messages with priority 14.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message is received from any RADIUS Peer Node on a connection which is assigned a priority of 14.

Measurement Scope

Site

Recovery

- No action required.

3.17.171 MpRxRadiusP15

Measurement ID

18248

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP ingress RADIUS messages with priority 15.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message is received from any RADIUS Peer Node on a connection which is assigned a priority of 15.

Measurement Scope

Site

Recovery

- No action required.

3.17.172 MpTxAll

Measurement ID

18032

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP egress messages (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

This measurement is incremented for each egress message during the Tx phase (routable and peer-to-peer).

Measurement Scope

Site

Recovery

- No action required.

3.17.173 MpTxAllDrop

Measurement ID

18035

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP egress messages dropped (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

This measurement is incremented for each egress message dropped during the Tx phase (routable and peer-to-peer).

The associated reasons can be found in this table:

Layer	Event	Reason
CSL	EvFsmOpState	StateChange (TransportCongestion)
	EvTxException	ConnUnavailable
RCL	EvTxException	WriteFailure

Measurement Scope

Site

Recovery

- No action required.

3.17.174 MpTxAllRateAvg

Measurement ID

18033

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

DA-MP egress message rate average (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

Output measurement of the MpTxAllRate metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.175 MpTxAllRatePeak

Measurement ID

18034

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

DA-MP egress message rate peak (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

Output measurement of the MpTxAllRate metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.176 MpTxDiamAll

Measurement ID

18109

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

DA-MP egress Diameter messages (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

Incremented for each egress Diameter message during the Tx phase (routable and peer-to-peer).

Measurement Scope

Site

Recovery

- No action required.

3.17.177 MpTxDiamAllLen

Measurement ID

10140

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Bucket)

Description

DA-MP egress Diameter message length (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

Updated for each egress Diameter message during the Tx phase (routable and peer-to-peer).

Measurement Scope

Site

Recovery

- No action required.

3.17.178 MpTxDiamAllLenAvg

Measurement ID

10138

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

DA-MP egress Diameter message length (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

Updated for each egress Diameter message during the Tx phase (routable and peer-to-peer).

Measurement Scope

Site

Recovery

- No action required.

3.17.179 MpTxDiamAllLenPeak

Measurement ID

10139

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

DA-MP egress Diameter message length peak (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

Updated for each egress Diameter message during the Tx phase (routable and peer-to-peer).

Measurement Scope

Site

Recovery

- No action required.

3.17.180 MpTxDiamAllRateAvg

Measurement ID

18110

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

DA-MP egress Diameter message rate average (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

Output measurement of the MpTxDiamAllRate metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.181 MpTxDiamAllRatePeak

Measurement ID

18111

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

DA-MP egress Diameter message rate peak (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

Output measurement of the MpTxDiamAllRate metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.182 MpTxDiamP0

Measurement ID

18106

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

DA-MP egress Diameter messages with priority 0.

Collection Interval

5 min

Peg Condition

Incremented for each egress Diameter message with priority 0 during the Tx phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.183 MpTxDiamP1

Measurement ID

18107

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

DA-MP egress Diameter messages with priority 1.

Collection Interval

5 min

Peg Condition

Incremented for each egress Diameter message with priority 1 during the Tx phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.184 MpTxDiamP2

Measurement ID

18108

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

DA-MP egress Diameter messages with priority 2.

Collection Interval

5 min

Peg Condition

Incremented for each egress Diameter message with priority 2 during the Tx phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.185 MpTxDiamP3

Measurement ID

10137

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

DA-MP egress Diameter messages with priority 3.

Collection Interval

5 min

Peg Condition

Incremented for each egress Diameter message with priority 3 during the Tx phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.186 MpTxDiamP4

Measurement ID

18113

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

DA-MP egress Diameter messages with priority 4.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each egress Diameter message with priority 4 during the Tx phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.187 MpTxDiamP5

Measurement ID

18125

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP egress Diameter messages with priority 5.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each egress Diameter message with priority 5 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.188 MpTxDiamP6

Measurement ID

18126

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP egress Diameter messages with priority 6.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each egress Diameter message with priority 6 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.189 MpTxDiamP7

Measurement ID

18127

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP egress Diameter messages with priority 7.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each egress Diameter message with priority 7 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.190 MpTxDiamP8

Measurement ID

18128

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP egress Diameter messages with priority 8.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each egress Diameter message with priority 8 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.191 MpTxDiamP9

Measurement ID

18129

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP egress Diameter messages with priority 9.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each egress Diameter message with priority 9 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.192 MpTxDiamP10

Measurement ID

18130

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP egress Diameter messages with priority 10.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each egress Diameter message with priority 10 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.193 MpTxDiamP11

Measurement ID

18131

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP egress Diameter messages with priority 11.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each egress Diameter message with priority 11 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.194 MpTxDiamP12

Measurement ID

18132

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP egress Diameter messages with priority 12.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each egress Diameter message with priority 12 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.195 MpTxDiamP13

Measurement ID

18133

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP egress Diameter messages with priority 13.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each egress Diameter message with priority 13 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.196 MpTxDiamP14

Measurement ID

18134

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP egress Diameter messages with priority 14.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each egress Diameter message with priority 14 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.197 MpTxDiamP15

Measurement ID

18135

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single by <DA-MP>

Description

The number of DA-MP egress Diameter messages with priority 15.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each egress Diameter message with priority 15 during the Message Priority phase.

Measurement Scope

Site

Recovery

- No action required.

3.17.198 MpTxRadiusAll

Measurement ID

18218

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP egress RADIUS messages (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message is sent to a RADIUS Peer Node on a connection.

Measurement Scope

Site

Recovery

- No action required.

3.17.199 MpTxRadiusAllLen

Measurement ID

18221

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Bucket ID)

Description

DA-MP ingress RADIUS message length (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

This measurement is pegged when a routable RADIUS message is sent to any RADIUS Peer Node on a connection.

 **Note:**

Each bucket in the array contains the number of PDUs whose RADIUS payload octets fell within the bucket's range during the measurement period.

[0] = less than 512 octets

[1] = 512 to 1023 octets

[2] = 1024 to 1535 octets

[3] = 1536 to 2047 octets

[4] = 2048 to 2559 octets

[5] = 2560 to 3071 octets

[6] = 3072 to 3583 octets

[7] = 3584 to 4096 octets

Measurement Scope

Site

Recovery

- No action required.

3.17.200 MpTxRadiusAllLenAvg

Measurement ID

18222

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

DA-MP egress RADIUS message length average (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

This measurement is pegged when a routable RADIUS message is sent to a RADIUS Peer Node on a connection.

Measurement Scope

Site

Recovery

- No action required.

3.17.201 MpTxRadiusAllLenPeak

Measurement ID

18223

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

DA-MP egress RADIUS message length peak (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

This measurement is pegged when the size of a routable RADIUS message sent to a RADIUS Peer Node on a connection is larger than any other message sent to a RADIUS Peer Node during the reporting interval.

Measurement Scope

Site

Recovery

- No action required.

3.17.202 MpTxRadiusAllAvg

Measurement ID

18219

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

DA-MP egress RADIUS message rate average (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

Output measurement of the MpTxRadiusAllRate metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.203 MpTxRadiusAllPeak

Measurement ID

18220

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

DA-MP egress RADIUS message rate peak (routable and peer-to-peer).

Collection Interval

5 min

Peg Condition

Output measurement of the MpTxRadiusAllRate metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.204 MpTxRadiusP0

Measurement ID

18214

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP egress RADIUS messages with priority 0.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message assigned a priority of 0 is sent to any RADIUS Peer Node on a connection.

Measurement Scope

Site

Recovery

- No action required.

3.17.205 MpTxRadiusP1

Measurement ID

18215

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP egress RADIUS messages with priority 1.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message assigned a priority of 1 is sent to any RADIUS Peer Node on a connection.

Measurement Scope

Site

Recovery

- No action required.

3.17.206 MpTxRadiusP2

Measurement ID

18216

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP egress RADIUS messages with priority 2.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message assigned a priority of 2 is sent to any RADIUS Peer Node on a connection.

Measurement Scope

Site

Recovery

- No action required.

3.17.207 MpTxRadiusP3

Measurement ID

18217

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP egress RADIUS messages with priority 3.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message assigned a priority of 3 is sent to any RADIUS Peer Node on a connection.

Measurement Scope

Site

Recovery

- No action required.

3.17.208 MpTxRadiusP4

Measurement ID

18249

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP egress RADIUS messages with priority 4.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message assigned a priority of 4 is sent to any RADIUS Peer Node on a connection

Measurement Scope

Site

Recovery

- No action required.

3.17.209 MpTxRadiusP5

Measurement ID

18250

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP egress RADIUS messages with priority 5.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message assigned a priority of 5 is sent to any RADIUS Peer Node on a connection

Measurement Scope

Site

Recovery

- No action required.

3.17.210 MpTxRadiusP6

Measurement ID

18251

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP egress RADIUS messages with priority 6.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message assigned a priority of 6 is sent to any RADIUS Peer Node on a connection

Measurement Scope

Site

Recovery

- No action required.

3.17.211 MpTxRadiusP7

Measurement ID

18252

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP egress RADIUS messages with priority 7.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message assigned a priority of 7 is sent to any RADIUS Peer Node on a connection

Measurement Scope

Site

Recovery

- No action required.

3.17.212 MpTxRadiusP8

Measurement ID

18253

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP egress RADIUS messages with priority 8.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message assigned a priority of 8 is sent to any RADIUS Peer Node on a connection

Measurement Scope

Site

Recovery

- No action required.

3.17.213 MpTxRadiusP9

Measurement ID

18254

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP egress RADIUS messages with priority 9.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message assigned a priority of 9 is sent to any RADIUS Peer Node on a connection

Measurement Scope

Site

Recovery

- No action required.

3.17.214 MpTxRadiusP10

Measurement ID

18255

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP egress RADIUS messages with priority 10.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message assigned a priority of 10 is sent to any RADIUS Peer Node on a connection

Measurement Scope

Site

Recovery

- No action required.

3.17.215 MpTxRadiusP11

Measurement ID

18256

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP egress RADIUS messages with priority 11.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message assigned a priority of 11 is sent to any RADIUS Peer Node on a connection

Measurement Scope

Site

Recovery

- No action required.

3.17.216 MpTxRadiusP12

Measurement ID

18257

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP egress RADIUS messages with priority 12.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message assigned a priority of 12 is sent to any RADIUS Peer Node on a connection

Measurement Scope

Site

Recovery

- No action required.

3.17.217 MpTxRadiusP13

Measurement ID

18258

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP egress RADIUS messages with priority 13.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message assigned a priority of 13 is sent to any RADIUS Peer Node on a connection

Measurement Scope

Site

Recovery

- No action required.

3.17.218 MpTxRadiusP14

Measurement ID

18259

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP egress RADIUS messages with priority 14.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message assigned a priority of 14 is sent to any RADIUS Peer Node on a connection

Measurement Scope

Site

Recovery

- No action required.

3.17.219 MpTxRadiusP15

Measurement ID

18260

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP egress RADIUS messages with priority 15.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a RADIUS message assigned a priority of 15 is sent to any RADIUS Peer Node on a connection

Measurement Scope

Site

Recovery

- No action required.

3.17.220 MpXactionPassAvg

Measurement ID

10097

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

DA-MP transaction success rate average.

Collection Interval

5 min

Peg Condition

Placeholder measurement of the MpXactionPass metric.

Measurement Scope

Site

Recovery

- No action required.

3.17.221 RclEtrPoolAvg

Measurement ID

18232

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

RCL ETR pool utilization average.

Collection Interval

5 min

Peg Condition

The average of all RADIUS ETR Pool utilization samples taken during the collection interval.

Measurement Scope

Site

Recovery

- No action required.

3.17.222 RclEtrPoolPeak

Measurement ID

18233

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

RCL ETR pool utilization peak.

Collection Interval

5 min

Peg Condition

The maximum RADIUS ETR Pool utilization sample taken during the collection interval.

Measurement Scope

Site

Recovery

- No action required.

3.17.223 RclltrPoolAvg

Measurement ID

18230

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

RCL ITR pool utilization average.

Collection Interval

5 min

Peg Condition

The average of all RADIUS ITR Pool utilization samples taken during the collection interval.

Measurement Scope

Site

Recovery

- No action required.

3.17.224 RclltrPoolPeak

Measurement ID

18231

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

RCL ITR pool utilization peak.

Collection Interval

5 min

Peg Condition

The maximum RADIUS ITR Pool utilization sample taken during the collection interval.

Measurement Scope

Site

Recovery

- No action required.

3.17.225 RclRxTaskQueueAvg

Measurement ID

18210

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

RCL ingress task message queue utilization average.

Collection Interval

5 min

Peg Condition

The average of all RADIUS Ingress Message Queue utilization samples taken during the collection interval.

Measurement Scope

Site

Recovery

- No action required.

3.17.226 RclRxTaskQueuePeak

Measurement ID

18211

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

RCL ingress task message queue utilization peak.

Collection Interval

5 min

Peg Condition

The maximum RADIUS Ingress Message Queue utilization sample taken during the collection interval.

Measurement Scope

Site

Recovery

- No action required.

3.17.227 RclTxTaskQueueAvg

Measurement ID

18212

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

RCL egress task message queue utilization average.

Collection Interval

5 min

Peg Condition

The average of all RADIUS Egress Message Queue utilization samples taken during the collection interval.

Measurement Scope

Site

Recovery

- No action required.

3.17.228 RclTxTaskQueuePeak

Measurement ID

18213

Measurement Group

DA-MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

RCL egress task message queue utilization peak.

Collection Interval

5 min

Peg Condition

The maximum RADIUS Egress Message Queue utilization sample taken during the collection interval.

Measurement Scope

Site

Recovery

- No action required.

3.17.229 TmMpCpuCL1

Measurement ID

10284

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

DA-MP onset for CPU utilization in congestion level 1.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each onset of CL1.

Measurement Scope

Site

Recovery

- No action required.

3.17.230 TmMpCpuCL2

Measurement ID

10286

Measurement Group

DA-MP Performance

Measurement Type

Timer

Measurement Dimension

Single

Description

DA-MP timer for CPU utilization in congestion level 2.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each millisecond CPU utilization is in CL2.

Measurement Scope

Site

Recovery

- No action required.

3.17.231 TmMpCpuCL3

Measurement ID

10288

Measurement Group

DA-MP Performance

Measurement Type

Timer

Measurement Dimension

Single

Description

DA-MP timer for CPU utilization in congestion level 3.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each millisecond CPU utilization is in CL3.

Measurement Scope

Site

Recovery

- No action required.

3.17.232 TmMpMemCL1

Measurement ID

14150

Measurement Group

DA-MP Performance

Measurement Type

Timer

Measurement Dimension

Single

Description

DA-MP timer for memory utilization in congestion level 1.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each millisecond memory utilization is in CL1.

Measurement Scope

Site

Recovery

- No action required.

3.17.233 TmMpMemCL2

Measurement ID

14152

Measurement Group

DA-MP Performance

Measurement Type

Timer

Measurement Dimension

Single

Description

DA-MP timer for memory utilization in congestion level 2.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each millisecond memory utilization is in CL2.

Measurement Scope

Site

Recovery

- No action required.

3.17.234 TmMpMemCL3

Measurement ID

14154

Measurement Group

DA-MP Performance

Measurement Type

Timer

Measurement Dimension

Single

Description

DA-MP timer for memory utilization in congestion level 3.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each millisecond memory utilization is in CL3.

Measurement Scope

Site

Recovery

- No action required.

3.17.235 TmRclEtrHoldTimeAvg

Measurement ID

18236

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

RCL ETR hold time average.

Collection Interval

5 min

Peg Condition

The average RADIUS ETR hold time sample taken during the collection interval.

Measurement Scope

Site

Recovery

- No action required.

3.17.236 TmRclltrHoldTimeAvg

Measurement ID

18235

Measurement Group

DA-MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

RCL ITR hold time average.

Collection Interval

5 min

Peg Condition

The average RADIUS ITR hold time sample taken during the collection interval.

Measurement Scope

Site

Recovery

- No action required.

3.18 DA-MP Service measurements

3.18.1 MpEvException

Measurement ID

18001

Measurement Group

DA-MP Service

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP exception events.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each MpEvException event, regardless of event reason or throttling.

Measurement Scope

Site

Recovery

- No action required.

3.18.2 MpEvFsmException

Measurement ID

18000

Measurement Group

DA-MP Service

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DA-MP connection FSM exception events.

Collection Interval

5 min

Peg Condition

This measurement is incremented for each MpEvFsmException event, regardless of event reason or throttling.

Measurement Scope

Site

Recovery

- No action required.

3.19 DCA Custom measurement templates

The DCA Framework allows for the creation of customized measurement reports with the use of templates. The DCA Custom measurement templates are presented in their differentiated form.

3.19.1 Arrayed Average Measurement (DcaCustomMeal.name + Avg + "_" + DcaDalld.shortName)

Measurement ID

19800-19849

Measurement Group

DCA concatenated with the *DcaDalld.shortName* of the DCA App the Custom MEAL is assigned to

Measurement Type

Average

Measurement Dimension

Arrayed

Description

Average value of *DcaCustomMeal.name* per second

Collection Interval

5 min

Peg Condition

This measurement is pegged via the Custom MEAL API.

Measurement Scope

Server Group

3.19.2 Arrayed Measurement (DcaCustomMeal.name + Cnt + "_" + DcaDalld.shortName)

Measurement ID

19600-19649

Measurement Group

DCA concatenated with the *DcaDalld.shortName* of the DCA App the Custom MEAL is assigned to

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

DcaCustomMeal.name measurement

Collection Interval

5 min

Peg Condition

This measurement is pegged via the Custom MEAL API.

Measurement Scope

Server Group

3.19.3 Arrayed Peak Measurement (DcaCustomMeal.name + Peak + "_" + DcaDalld.shortName)

Measurement ID

19700-19749

Measurement Group

DCA concatenated with the *DcaDalld.shortName* of the DCA App the Custom MEAL is assigned to

Measurement Type

Max

Measurement Dimension

Arrayed

Description

Peak value of *DcaCustomMeal.name* per second

Collection Interval

5 min

Peg Condition

This measurement is pegged via the Custom MEAL API.

Measurement Scope

Server Group

3.19.4 Scalar Average Measurement (DcaCustomMeal.name + Avg + "_" + DcaDalld.shortName)

Measurement ID

19750-19799

Measurement Group

DCA concatenated with the *DcaDalld.shortName* of the DCA App the Custom MEAL is assigned to

Measurement Type

Average

Measurement Dimension

Single

Description

Average value of *DcaCustomMeal.name* per second

Collection Interval

5 min

Peg Condition

This measurement is pegged via the Custom MEAL API.

Measurement Scope

Server Group

3.19.5 Scalar Measurement (DcaCustomMeal.name + Cnt + "_" + DcaDalld.shortName)

Measurement ID

19550-19599

Measurement Group

DCA concatenated with the *DcaDalld.shortName* of the DCA App the Custom MEAL is assigned to

Measurement Type

Simple

Measurement Dimension

Single

Description

DcaCustomMeal.name measurement

Collection Interval

5 min

Peg Condition

This measurement is pegged via the Custom MEAL API.

Measurement Scope
Server Group

3.19.6 Scalar Peak Measurement (DcaCustomMeal.name + Peak + "_" + DcaDalld.shortName)

Measurement ID
19650-19699

Measurement Group
DCA concatenated with the *DcaDalld.shortName* of the DCA App the Custom MEAL is assigned to

Measurement Type
Max

Measurement Dimension
Single

Description
Peak value of *DcaCustomMeal.name* per second

Collection Interval
5 min

Peg Condition
This measurement is pegged via the Custom MEAL API.

Measurement Scope
Server Group

3.20 DCA Framework Exception measurements

The DCA Framework Exception measurement report contains measurements that provide information about exceptions and unexpected messages and events that are specific to the DCA Framework.

3.20.1 TxDcaFullDRLAnswerDiscard

Measurement ID
19507

Measurement Group
DCA Framework Exception

Measurement Type
Simple

Measurement Dimension
Arrayed (by DcaDalld)

Description

The number of egress Diameter Answer messages that were discarded because the DRL's Answer Queue was full, counted during a collection interval.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each Answer message discarded because the DRL's Answer Queue was full.

Measurement Scope

Server Group

Recovery

- No action required.

3.20.2 TxDcaFullDRLRequestReject

Measurement ID

19506

Measurement Group

DCA Framework Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by DcaDalld)

Description

The number of egress Diameter Request messages that were rejected because the DRL's Request Queue was full, counted during a collection interval.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each Request message discarded because the DRL's Request Queue was full.

Measurement Scope

Server Group

Recovery

- No action required.

3.20.3 TxDcaSbrQueryFailCount

Measurement ID

19517

Measurement Group

DCA Framework Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by DcaDalld)

Description

The total number of SBR query send errors, counted during the collection interval.

Collection Interval

5 min

Peg Condition

This measurement is pegged each time sending a Stack Event to the U-SBR fails.

Measurement Scope

Server Group

Recovery

- No action required.

3.20.4 TxDcaSbrQueryFailRateAvg

Measurement ID

19521

Measurement Group

DCA Framework Exception

Measurement Type

Average

Measurement Dimension

Arrayed (by DcaDalld)

Description

The average DSR Application's SBR Query Fail Rate, measured during the collection interval.

Collection Interval

5 min

Peg Condition

The average of the U-SBR query send failure samples taken during the collection interval.

Measurement Scope

Server Group

Recovery

- No action required.

3.20.5 TxDcaSbrQueryFailRatePeak

Measurement ID

19522

Measurement Group

DCA Framework Exception

Measurement Type

Max

Measurement Dimension

Arrayed (by DcaDalld)

Description

The peak DSR Application's SBR Query Fail Rate, measured during the collection interval.

Collection Interval

5 min

Peg Condition

The maximum number of the U-SBR query send failure samples taken during the collection interval.

Measurement Scope

Server Group

Recovery

- No action required.

3.21 DCA Framework Performance measurements

The DCA Framework Performance measurement report contains measurements that provide performance information that is specific to the DCA Framework.

3.21.1 RxDcaRequestMsgQueuePeak

Measurement ID

19500

Measurement Group

DCA Framework Performance

Measurement Type

Max

Measurement Dimension

Arrayed (by DcaDalld)

Description

The peak DSR Application's Request Message Queue utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

The maximum Request Message Queue utilization sample taken during the collection interval.

Measurement Scope

Server Group

Recovery

- No action required.

3.21.2 RxDcaRequestMsgQueueAvg

Measurement ID

19501

Measurement Group

DCA Framework Performance

Measurement Type

Average

Measurement Dimension

Arrayed (by DcaDalld)

Description

The average Request Message Queue utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

The average of all Request Message Queue utilization samples taken during the collection interval.

Measurement Scope

Server Group

Recovery

- No action required.

3.21.3 RxDcaAnswerMsgQueuePeak

Measurement ID

19502

Measurement Group

DCA Framework Performance

Measurement Type

Max

Measurement Dimension

Arrayed (by DcaDalld)

Description

The peak Answer Message Queue utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

The maximum Answer Message Queue utilization sample taken during the collection interval.

Measurement Scope

Server Group

Recovery

- No action required.

3.21.4 RxDcaAnswerMsgQueueAvg

Measurement ID

19503

Measurement Group

DCA Framework Performance

Measurement Type

Average

Measurement Dimension

Arrayed (by DcaDalld)

Description

The average Answer Message Queue utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

The average of all Answer Message Queue utilization samples taken during the collection interval.

Measurement Scope

Server Group

Recovery

- No action required.

3.21.5 RxDcaSbrEventMsgQueuePeak

Measurement ID

19504

Measurement Group

DCA Framework Performance

Measurement Type

Max

Measurement Dimension

Arrayed (by DcaDalld)

Description

The peak SBR Event Message Queue utilization (0-100%), measured during the collection interval.

Collection Interval

5 min

Peg Condition

The maximum SBR Event Message Queue utilization sample taken during the collection interval.

Measurement Scope

Server Group

Recovery

- No action required.

3.21.6 RxDcaSbrEventMsgQueueAvg

Measurement ID

19505

Measurement Group

DCA Framework Performance

Measurement Type

Average

Measurement Dimension

Arrayed (by DcaDalld)

Description

The average SBR Event Message Queue utilization (0-100%), measured during the collection interval.

Collection Interval

5 min

Peg Condition

The average of all SBR Event Message Queue utilization samples taken during the collection interval.

Measurement Scope

Server Group

Recovery

- No action required.

3.21.7 TxDcaFullDRLRequestReject

Measurement ID

19506

Measurement Group

DCA Framework Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by DcaDalld)

Description

The number of egress Diameter Request messages that were rejected because the DRL's Request Queue was full, counted during a collection interval.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each Request message discarded because the DRL's Request Queue was full.

Measurement Scope

Server Group

Recovery

- No action required.

3.21.8 TxDcaFullDRLAnswerDiscard

Measurement ID

19507

Measurement Group

DCA Framework Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by DcaDalld)

Description

The number of egress Diameter Answer messages that were discarded because the DRL's Answer Queue was full, counted during a collection interval.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each Answer message discarded because the DRL's Answer Queue was full.

Measurement Scope

Server Group

Recovery

- No action required.

3.21.9 RxDcaMsgRatePeak

Measurement ID

19508

Measurement Group

DCA Framework Performance

Measurement Type

Max

Measurement Dimension

Arrayed (by DcaDalld)

Description

The peak DSR Application's Ingress Message Rate, measured during the collection interval.

Collection Interval

5 min

Peg Condition

The maximum DSR Application Ingress Message Rate sample taken during the collection interval.

Measurement Scope

Server Group

Recovery

- No action required.

3.21.10 RxDcaMsgRateAvg

Measurement ID

19509

Measurement Group

DCA Framework Performance

Measurement Type

Average

Measurement Dimension

Arrayed (by DcaDalld)

Description

The average DSR Application's Ingress Message Rate, measured during the collection interval.

Collection Interval

5 min

Peg Condition

The average of all DSR Application Ingress Message Rate samples taken during the collection interval.

Measurement Scope

Server Group

Recovery

- No action required.

3.21.11 RxDcaMsgProcessed

Measurement ID

19510

Measurement Group

DCA Framework Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by DcaDalld)

Description

The number of Requests and Answers processed by a DSR Application, counted during the collection interval.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each Request/Answer message successfully de-queued from the DSR Application Request/Answer Message queue.

Measurement Scope

Server Group

Recovery

- No action required.

3.21.12 RxDcaRequestProcessed

Measurement ID

19511

Measurement Group

DCA Framework Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by DcaDalId)

Description

The number of Requests processed by a DSR Application, counted during the collection interval.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each Request message successfully de-queued from the DSR Application Request Message queue.

Measurement Scope

Server Group

Recovery

- No action required.

3.21.13 RxDcaAnswerProcessed

Measurement ID

19512

Measurement Group

DCA Framework Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by DcaDalld)

Description

The number of Answers processed by a DSR Application, counted during the collection interval.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each Answer message successfully de-queued from the DSR Application Answer Message queue.

Measurement Scope

Server Group

Recovery

- No action required.

3.21.14 TxDcaSbrEventRatePeak

Measurement ID

19513

Measurement Group

DCA Framework Performance

Measurement Type

Max

Measurement Dimension

Arrayed (by DcaDalld)

Description

The peak DSR Application's SBR Query Rate, measured during the collection interval.

Collection Interval

5 min

Peg Condition

The maximum DSR Application SBR Query Rate sample taken during the collection interval.

Measurement Scope

Server Group

Recovery

- No action required.

3.21.15 TxDcaSbrEventRateAvg

Measurement ID

19514

Measurement Group

DCA Framework Performance

Measurement Type

Average

Measurement Dimension

Arrayed (by DcaDalld)

Description

The average DSR Application's SBR Query Rate, measured during the collection interval.

Collection Interval

5 min

Peg Condition

The average DSR Application SBR Query Rate sample taken during the collection interval.

Measurement Scope

Server Group

Recovery

- No action required.

3.21.16 TxDcaSbrEventSent

Measurement ID

19515

Measurement Group

DCA Framework Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by DcaDalld)

Description

The number of SBR Queries successfully sent to the U-SBR, counted during the collection interval.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each SBR Query successfully sent to the U-SBR.

Measurement Scope

Server Group

Recovery

- No action required.

3.21.17 DcaRuntimeErrCount

Measurement ID

19516

Measurement Group

DCA Framework Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by DcaDalld)

Description

The total number of Diameter messages that encounter script run-time errors, counted during the collection interval.

Collection Interval

5 min

Peg Condition

This measurement is pegged each time the Perl interpreter returns a run-time error.

Measurement Scope

Server Group

Recovery

- No action required.

3.21.18 TxDcaSbrQueryFailCount

Measurement ID

19517

Measurement Group

DCA Framework Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by DcaDalld)

Description

The total number of SBR query send errors, counted during the collection interval.

Collection Interval

5 min

Peg Condition

This measurement is pegged each time sending a Stack Event to the U-SBR fails.

Measurement Scope

Server Group

Recovery

- No action required.

3.21.19 RxDcaTransactionsTerminatedAns

Measurement ID

19518

Measurement Group

DCA Framework Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by DcaDalld)

Description

The number of transactions terminated by the DCA Application by returning an error answer.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each transaction when the DCA Application, acting as a relay, initiates an error answer response using the "answer" built-in API call.

Measurement Scope

Server Group

Recovery

- No action required.

3.21.20 RxDcaTransactionsCompleted

Measurement ID

19519

Measurement Group

DCA Framework Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by DcaDalld)

Description

The number of transactions completed by the DCA Application.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each transaction terminated by forwarding the original Diameter Answer (either explicitly using a "forward" API call or implicitly by having the DCA framework default to forwarding the answer if no explicit action is encountered in the script).

Measurement Scope

Server Group

Recovery

- No action required.

3.21.21 RxDcaTransactionsTerminatedDrop

Measurement ID

19520

Measurement Group

DCA Framework Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by DcaDalld)

Description

The number of transactions terminated by the DCA Application by discarding the request.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each transaction when the DCA Application, acting as a relay, discards the ingress message using the "drop" built-in API call.

Measurement Scope

Server Group

Recovery

- No action required.

3.21.22 TxDcaSbrQueryFailRateAvg

Measurement ID

19521

Measurement Group

DCA Framework Exception

Measurement Type

Average

Measurement Dimension

Arrayed (by DcaDalld)

Description

The average DSR Application's SBR Query Fail Rate, measured during the collection interval.

Collection Interval

5 min

Peg Condition

The average of the U-SBR query send failure samples taken during the collection interval.

Measurement Scope

Server Group

Recovery

- No action required.

3.21.23 TxDcaSbrQueryFailRatePeak

Measurement ID

19522

Measurement Group

DCA Framework Exception

Measurement Type

Max

Measurement Dimension

Arrayed (by DcaDalld)

Description

The peak DSR Application's SBR Query Fail Rate, measured during the collection interval.

Collection Interval

5 min

Peg Condition

The maximum number of the U-SBR query send failure samples taken during the collection interval.

Measurement Scope

Server Group

Recovery

- No action required.

3.21.24 DcaOpcodeMainMax

Measurement ID

19524

Measurement Group

DCA Framework Performance

Measurement Type

Max

Measurement Dimension

Arrayed (by DcaDalld)

Description

The maximum number of opcodes executed by the main part of the Perl script.

Collection Interval

5 min

Peg Condition

This measurement is the destination measurement of the DcaOpcodeMain sysmetric.

Measurement Scope

Server Group

Recovery

- No action required.

3.21.25 DcaOpcodeHandlerMax

Measurement ID

19526

Measurement Group

DCA Framework Performance

Measurement Type

Max

Measurement Dimension

Arrayed (by DcaDalld)

Description

The maximum number of opcodes executed by Perl script event handlers.

Collection Interval

5 min

Peg Condition

This measurement is the destination measurement of the DcaOpcodeHandler sysmetric.

Measurement Scope

Server Group

Recovery

- No action required.

3.21.26 DcaTermOpcodeCnt

Measurement ID

19527

Measurement Group

DCA Framework Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by DcaDalld)

Description

The number of Diameter transactions terminated because one of the event handlers have exceeded the maximum configured number of opcodes.

Collection Interval

5 min

Peg Condition

An event handler is terminated because it has exceeded the maximum configured number of opcodes.

Measurement Scope

Server Group

Recovery

- No action required.

3.21.27 RxDcaLogEventProcessed

Measurement ID

19528

Measurement Group

DCA Framework Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by DcaDalld)

Description

The number of log events processed by DCA Applications, counted during the collection interval.

Collection Interval

5 min

Peg Condition

An event handler is terminated because it has exceeded the maximum configured number of opcodes.

Measurement Scope

Server Group

Recovery

- No action required.

3.21.28 RxDcaLogEventRateAvg

Measurement ID

19529

Measurement Group

DCA Framework Performance

Measurement Type

Average

Measurement Dimension

Arrayed (by DcaDalld)

Description

The average number of log events, measured during the collection interval.

Collection Interval

5 min

Peg Condition

An event handler is terminated because it has exceeded the maximum configured number of opcodes.

Measurement Scope

Server Group

Recovery

- No action required.

3.21.29 RxDcaLogEventRatePeak

Measurement ID

19530

Measurement Group

DCA Framework Performance

Measurement Type

Max

Measurement Dimension

Arrayed (by DcaDalld)

Description

The peak number of log events, measured during the collection interval.

Collection Interval

5 min

Peg Condition

An event handler is terminated because it has exceeded the maximum configured number of opcodes.

Measurement Scope

Server Group

Recovery

- No action required.

3.21.30 RxDcaAsyncMsgQueueAvg

Measurement ID

19531

Measurement Group

DCA Framework Performance

Measurement Type

Average

Measurement Dimension

Arrayed (by DcaDalld)

Description

The average Asynchronous Events Queue utilization (0-100%), measured during the collection interval.

Collection Interval

5 min

Peg Condition

An event handler is terminated because it has exceeded the maximum configured number of opcodes.

Measurement Scope

Server Group

Recovery

- No action required.

3.21.31 RxDcaAsyncMsgQueuePeak

Measurement ID

19532

Measurement Group

DCA Framework Performance

Measurement Type

Max

Measurement Dimension

Arrayed (by DcaDalld)

Description

The peak Asynchronous Events Queue utilization (0-100%), measured during the collection interval.

Collection Interval

5 min

Peg Condition

An event handler is terminated because it has exceeded the maximum configured number of opcodes.

Measurement Scope

Server Group

Recovery

- No action required.

3.21.32 DcaCreateAndSendMsgReqCount

Measurement ID

19533

Measurement Group

DCA Framework Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of CreateAndSend Request messages sent successfully by the DCA application.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each CreateAndSend Request message sent successfully.

Measurement Scope

Server Group

Recovery

- No action necessary.

3.21.33 DcaCreateAndSendMsgReqFailCount

Measurement ID

19534

Measurement Group

DCA Framework Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of CreateAndSend Request messages that did not send successfully by the DCA application.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each CreateAndSend Request message that failed while sending.

Measurement Scope

Server Group

Recovery

- No action necessary.

3.21.34 DcaCreateAndSendMsgAnsReceiveCount

Measurement ID

19535

Measurement Group

DCA Framework Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of CreateAndSendAns messages received by the DCA application.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each CreateAndSend Answer message received.

Measurement Scope

Server Group

Recovery

- No action necessary.

3.22 Diameter Signaling Router (DSR) Application Exception measurements

The DSR Application Exception measurement group is a set of measurements that provide information about exceptions and unexpected messages and events that are specific to the DSR protocol.

3.22.1 RxApplRequestNoRoutes

Measurement ID

10015

Measurement Group

DSR Application Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by DSR Application ID)

Description

Number of Request messages received from a DSR Application that could not be routed.

Collection Interval

5 min

Peg Condition

When DRL successfully receives a Request message from the DSR Application that is rejected with an Answer response because either a Peer Routing Rule was not found or implicit routing could not be invoked.

The DSR Application is forwarding Request messages that cannot be routed to a peer. The following problems could exist:

- A Peer Routing Rule could be missing or incorrectly configured.
- The DSR Application could be incorrectly configured.
- The Request message from a downstream peer was mis-routed to the DSR.

Measurement Scope

Server Group

Recovery

1. Verify the Peer Routing Rules on the **Diameter**, and then **Configuration**, and then **Peer Routing Rules** GUI screen and make any needed corrections.
2. Verify the DSR Application Id configuration on the **Diameter**, and then **Configuration**, and then **Application Ids** GUI screen and make any needed corrections.

3.22.2 RxApplUnavailable

Measurement ID

10016

Measurement Group

DSR Application Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Application ID)

Description

Number of Request messages received for a DSR Application that could not be routed to the DSR Application because the DSR Application was Unavailable.

Collection Interval

5 min

Peg Condition

When DRL receives a Request message from a peer that matches an Application Routing Rule, but cannot be routed to the DSR Application because its Operational Status is "Unavailable".

The DSR Application Operational Status is "Unavailable" when one of the following conditions occurs:

- The operator has removed the DSR Application from service (Admin State is "Disabled".)
- The DSR Application was congested when an attempt to route a Request message to the SR Application occurred.

When a DSR Application is "Unavailable", the message will be handled as defined by the "unavailability Action" attribute for the DSR Application (see the GUI screen for the DSR Application).

Measurement Scope

Server Group

Recovery

1. Verify the DSR Application Admin State on the **Diameter**, and then **Maintenance**, and then **Applications** GUI screen.
2. Verify the DSR Application "Unavailability Action" attribute configuration on the **Diameter**, and then **Configuration**, and then **Application IDs** GUI screen.

3.22.3 RxApplUnavailableForAnswer

Measurement ID

10017

Measurement Group

DSR Application Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by DSR Application ID)

Description

Number of Answer messages received for a DSR Application which could not be routed to DSR Application because it was not available.

Collection Interval

5 min

Peg Condition

When DRL receives an Answer message from a peer associated with a PTR indicating that the Answer response must be routed back to the DSR Application but cannot be routed to the DSR Application because its Operational Status is "Unavailable."

A DSR Application's Operational Status is "Unavailable" when one of the following conditions occur:

- The operator has removed the DSR Application from service (Admin State is "Disabled")
- The DSR Application was congested when an attempt to route a Request message to the DSR Application occurred.

When a DSR Application is "Unavailable", the message will be handled as defined by the "unavailability Action" attribute for the DSR Application (see the GUI screen for the DSR Application).

Measurement Scope

Server Group

Recovery

1. Verify the DSR Application Admin State on the **Diameter**, and then **Maintenance**, and then **Applications** GUI screen.
2. Verify the DSR Application "Unavailability Action" attribute configuration on the **Diameter**, and then **Configuration**, and then **Application Ids** GUI screen.

3.22.4 RxApplUnavailableForRequest

Measurement ID

10016

Measurement Group

DSR Application Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by DSR Application ID)

Description

Number of Request messages received for a DSR Application which could not be routed to DSR Application because it was not available.

Collection Interval

5 min

Peg Condition

When DRL receives a Request message from a peer which matches a ART rule but cannot be routed to the DSR Application because its Operational Status was not "Available".

A DSR Application's Operational Status is "Unavailable" when one of the following conditions occur:

- The operator has removed the DSR Application from service (Admin State is "Disabled").
- The DSR Application was congested when an attempt to route a Request message to the DSR Application occurred.

When a DSR Application is "Unavailable", the message will be handled as defined by the "unavailability Action" attribute for the DSR Application (see the GUI screen for the DSR Application).

Measurement Scope

Server Group

Recovery

1. Verify the DSR Application Admin State on the **Diameter**, and then **Maintenance**, and then **Applications** GUI screen.
2. Verify the DSR Application "Unavailability Action" attribute configuration on the **Diameter**, and then **Configuration**, and then **Application IDs** GUI screen.

3.22.5 TxCpaFullDRLRequestReject

Measurement ID

10704

Measurement Group

DSR Application Exception

Measurement Type

Average

Measurement Dimension

Single

Description

The number of egress Diameter Request messages that were rejected because the DRL's Request Queue was full.

Collection Interval

5 min

Peg Condition

For each Request message discarded because the “DRL’s Request Queue” was full. Used for congestion control by DSR.

Measurement Scope

Server Group

Recovery

- This measurement is primarily intended to assist in evaluating the need for additional **Message Processor (MP)** processing capacity at a Network Element and indicates overall **MP** congestion is occurring.
 - If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an **MP** over several collection intervals, then the number of MPs in the Network Element may need to be increased.
 - If the peak and average for an individual **MP** is significantly different than other MPs in the same Network Element, then an MP-specific hardware, software, or configuration problem may exist or a Diameter peer and/or DNS routing mis-configuration problem may exist.
 - If the problem persists, it is recommended to contact [#unique_131](#).

3.22.6 TxCpaFullDRLAnswerDiscard

Measurement ID

10705

Measurement Group

DSR Application Exception

Measurement Type

Average

Measurement Dimension

Single

Description

The number of egress Diameter Answer messages that were discarded because the DRL’s Answer Queue was full.

Collection Interval

5 min

Peg Condition

For each Answer message discarded because the “All-Connections Event Queue” was full. Used for congestion control by DSR.

Measurement Scope

Server Group

Recovery

- This measurement is primarily intended to assist in evaluating the need for additional **Message Processor (MP)** processing capacity at a Network Element and indicates overall **MP** congestion is occurring.
 - If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an **MP** over several collection intervals, then the number of MPs in the Network Element may need to be increased.
 - If the peak and average for an individual **MP** is significantly different than other MPs in the same Network Element, then an MP-specific hardware, software, or configuration problem may exist or a Diameter peer and/or DNS routing mis-configuration problem may exist.
 - If the problem persists, it is recommended to contact [#unique_131](#).

3.22.7 TxFabrFullDRLRequestReject

Measurement ID

10602

Measurement Group

DSR Application Exception

Measurement Type

Average

Measurement Dimension

Single

Description

The average Request Message Queue utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

The average of all Request Message Queue utilization samples taken during the collection interval.

Measurement Scope

Server Group

Recovery

- This measurement is primarily intended to assist in evaluating the need for additional **Message Processor (MP)** processing capacity at a Network Element and indicates overall **MP** congestion is occurring.
 - If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an **MP** over several collection intervals, then the number of MPs in the Network Element may need to be increased.
 - If the peak and average for an individual **MP** is significantly different than other MPs in the same Network Element, then an MP-specific hardware, software,

or configuration problem may exist or a Diameter peer and/or DNS routing mis-configuration problem may exist.

- If the problem persists, it is recommended to contact [#unique_131](#).

3.22.8 TxFabrFullDRLAnswerDiscard

Measurement ID

10603

Measurement Group

DSR Application Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of egress Diameter Answer messages that were discarded because the DRL's Answer Queue was full.

Collection Interval

5 min

Peg Condition

For each Answer message discarded because the "All-Connections Event Queue" was full.

Measurement Scope

Server Group

Recovery

- This measurement is primarily intended to assist in evaluating the need for additional **Message Processor (MP)** processing capacity at a Network Element and indicates overall **MP** congestion is occurring.
 - If both the peak and average measurement for multiple **MPs** within a Network Element are consistently near the recommended maximum engineered capacity of an **MP** over several collection intervals, then the number of **MPs** in the Network Element may need to be increased.
 - If the peak and average for an individual **MP** is significantly different than other **MPs** in the same Network Element, then an **MP**-specific hardware, software, or configuration problem may exist or a Diameter peer and/or DNS routing mis-configuration problem may exist.
 - If the problem persists, it is recommended to contact [#unique_131](#).

3.22.9 TxRbarFullDRLRequestReject

Measurement ID

10302

Measurement Group

DSR Application Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of egress Diameter Request messages that were rejected because the DRL's Request Queue was full.

Collection Interval

5 min

Peg Condition

When a Request message is discarded because the DRL's Request Queue is full.

Measurement Scope

Server Group

Recovery

- This measurement is primarily intended to assist in evaluating the need for additional **Message Processor (MP)** processing capacity at a Network Element and indicates overall **MP** congestion is occurring.
 - If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an **MP** over several collection intervals, then the number of MPs in the Network Element may need to be increased.
 - If the peak and average for an individual **MP** is significantly different than other MPs in the same Network Element, then an MP-specific hardware, software, or configuration problem may exist or a Diameter peer and/or DNS routing mis-configuration problem may exist.
 - If the problem persists, it is recommended to contact [#unique_131](#).

3.22.10 TxRbarFullDRLAnswerDiscard

Measurement ID

10303

Measurement Group

DSR Application Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of egress Diameter Answer messages that were discarded because the DRL's Answer Queue was full.

Collection Interval

5 min

Peg Condition

When an Answer message is discarded because the All-Connections Event Queue is full.

Measurement Scope

Server Group

Recovery

- This measurement is primarily intended to assist in evaluating the need for additional **Message Processor (MP)** processing capacity at a Network Element and indicates overall **MP** congestion is occurring.
 - If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an **MP** over several collection intervals, then the number of MPs in the Network Element may need to be increased.
 - If the peak and average for an individual **MP** is significantly different than other MPs in the same Network Element, then an MP-specific hardware, software, or configuration problem may exist or a Diameter peer and/or DNS routing mis-configuration problem may exist.
 - If the problem persists, it is recommended to contact [#unique_131](#).

3.23 Diameter Signaling Router (DSR) Application Performance measurements

The DSR Application Performance measurement group is a set of measurements that provide performance information that is specific to the DSR protocol. These measurements will allow the user to determine how many messages are successfully forwarded and received to and from each DSR Application.

3.23.1 RxApplAnswerFwdSuccess

Measurement ID

10011

Measurement Group

DSR Application Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by DSR Application ID)

Description

Number of Answer messages successfully forwarded to a DSR Application

Collection Interval

5 min

Peg Condition

When DRL successfully enqueues an Answer message on the DSR Application's internal Message Queue.

Measurement Scope

Server Group

Recovery

- No action required.

3.23.2 RxApplAnswerReceived

Measurement ID

10013

Measurement Group

DSR Application Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by DSR Application ID)

Description

Number of Request messages received from a DSR Application.

Collection Interval

5 min

Peg Condition

When DRL successfully receives a Request message from a DSR Application.

Measurement Scope

Server Group

Recovery

- No action required.

3.23.3 RxApplRequestFwdSuccess

Measurement ID

10010

Measurement Group

DSR Application Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by DSR Application ID)

Description

Number of Request messages successfully forwarded to a DSR Application.

Collection Interval

5 min

Peg Condition

When DRL successfully enqueues a Request message on the DSR Application's internal Message Queue.

Measurement Scope

Server Group

Recovery

- No action required.

3.23.4 RxApplRequestReceived

Measurement ID

10012

Measurement Group

DSR Application Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by DSR Application ID)

Description

Number of Request messages received from a DSR Application.

Collection Interval

5 min

Peg Condition

When DRL successfully receives a Request message from a DSR Application.

Measurement Scope

Server Group

Recovery

- No action required.

3.23.5 RxCpaAnswerMsgQueueAvg

Measurement ID

10703

Measurement Group

DSR Application Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average Answer Message Queue utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

The average of all Answer Message Queue utilization samples taken during the collection interval.

Measurement Scope

Server Group

Recovery

- No action required.

3.23.6 RxCpaAnswerMsgQueuePeak

Measurement ID

10702

Measurement Group

DSR Application Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak Answer Message Queue utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

The maximum Answer Message Queue utilization sample taken during the collection interval.

Measurement Scope

Server Group

Recovery

- No action required.

3.23.7 RxCpaAnswerProcessed

Measurement ID

10709

Measurement Group

DSR Application Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The total number of Answers processed by DSR Application.

Collection Interval

5 min

Peg Condition

This measurement will be incremented when a Diameter Answer is received.

Measurement Scope

Server Group

Recovery

- No action required.

3.23.8 RxCpaEventMsgQueueAvg

Measurement ID

10746

Measurement Group

DSR Application Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average CPA Application Event Message Queue utilization measured during the collection interval.

Collection Interval

5 min

Peg Condition

The average Event Message Queue utilizations sample taken during the collection interval.

Measurement Scope

Network, NE, Server Group

Recovery

- No action required.

3.23.9 RxCpaEventMsgQueuePeak

Measurement ID

10745

Measurement Group

DSR Application Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak CPA Application Event Message Queue utilization measured during the collection interval.

Collection Interval

5 min

Peg Condition

The maximum Event Message Queue utilization sample taken during the collection interval.

Measurement Scope

Network, NE, Server Group

Recovery

- No action required.

3.23.10 RxCpaMsgRateAvg

Measurement ID

10707

Measurement Group

DSR Application Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average DSR Application's Message Processing rate measured during the collection interval.

Collection Interval

5 min

Peg Condition

The average of all message processing rate samples taken during the collection interval. Used for congestion control by DSR.

Measurement Scope

Server Group

Recovery

- No action required.

3.23.11 RxCpaMsgRatePeak

Measurement ID

10706

Measurement Group

DSR Application Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak DSR Application's Message Processing rate measured during the collection interval.

Collection Interval

5 min

Peg Condition

The maximum message processing rate sample taken during the collection interval. Used for congestion control by DSR.

Measurement Scope

Server Group

Recovery

- No action required.

3.23.12 RxCpaRequestMsgQueueAvg

Measurement ID

10701

Measurement Group

DSR Application Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average Request Message Queue utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

The average of all Request Message Queue utilization samples taken during the collection interval.

Measurement Scope

Server Group

Recovery

- No action required.

3.23.13 RxCpaRequestMsgQueuePeak

Measurement ID

10700

Measurement Group

DSR Application Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak DSR Application's Request Message Queue utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

The maximum Request Message Queue utilization sample taken during the collection interval.

Measurement Scope

Server Group

Recovery

- No action required.

3.23.14 RxCpaRequestProcessed

Measurement ID

10708

Measurement Group

DSR Application Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The total number of Requests processed by DSR Application.

Collection Interval

5 min

Peg Condition

This measurement will be incremented when a Diameter Request is received.

Measurement Scope

Server Group

Recovery

- No action required.

3.23.15 RxFabrMsgRateAvg

Measurement ID

10605

Measurement Group

DSR Application Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average DSR Application's Ingress Message Rate measured during the collection interval.

Collection Interval

5 min

Peg Condition

The average of all **DSR** Application Ingress Message Rate samples taken during the collection interval.

Measurement Scope

Server Group

Recovery

1. Verify the configuration using **Diameter**, and then **Configuration**, and then **Application Routing Rules**.

The Application Routing Table may be mis-configured and sending too much traffic to the **DSR** Application.

2. Use **Main Menu**, and then **Status & Manage**, and then **KPIs** to monitor the ingress traffic rate of each MP.

The MPs may be unable to handle the network load. MPs are in a congestion state when the ingress message rate to the **MP** is exceeding its capacity to process the messages.

3. If the problem persists, it is recommended to contact [#unique_131](#).

3.23.16 RxFabrMsgRatePeak

Measurement ID

10604

Measurement Group

DSR Application Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak **DSR** Application's Ingress Message Rate measured during the collection interval.

Collection Interval

5 min

Peg Condition

The maximum **DSR** Application Ingress Message Rate sample taken during the collection interval.

Measurement Scope

Server Group

Recovery

1. Verify the configuration using **Diameter**, and then **Configuration**, and then **Application Routing Rules**.

The Application Routing Table may be mis-configured and sending too much traffic to the **DSR** Application.

2. Use **Main Menu**, and then **Status & Manage**, and then **KPIs** to monitor the ingress traffic rate of each MP.

The MPs may be unable to handle the network load. MPs are in a congestion state when the ingress message rate to the **MP** is exceeding its capacity to process the messages.

3. If the problem persists, it is recommended to contact [#unique_131](#).

3.23.17 RxFabrRequestMsgQueueAvg

Measurement ID

10601

Measurement Group

DSR Application Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average Request Message Queue utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

The average of all Request Message Queue utilization samples taken during the collection interval.

Measurement Scope

Server Group

Recovery

1. Display and monitor the **DSR** Application status by selecting **Diameter**, and then **Maintenance**, and then **Applications**. Verify that the Admin State is set as expected.
The **DSR** Application's Request Message Queue Utilization is approaching its maximum capacity. This alarm should not normally occur when no other congestion alarms are asserted.
2. Application Routing might be mis-configured and is sending too much traffic to the **DSR** Application. Verify the configuration by selecting **Diameter**, and then **Configuration**, and then **Application Routing Rules**.
3. If no additional congestion alarms are asserted, the **DSR** Application Task might be experiencing a problem that is preventing it from processing message from its Request Message Queue. Examine the Alarm log in **Alarms & Events**
4. If the problem persists, it is recommended to contact [#unique_131](#).

3.23.18 RxFabrRequestMsgQueuePeak

Measurement ID

10600

Measurement Group

DSR Application Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak **DSR** Application's Request Message Queue utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

The maximum Request Message Queue utilization sample taken during the collection interval.

Measurement Scope

Server Group

Recovery

1. Display and monitor the **DSR** Application status by selecting **Diameter**, and then **Maintenance**, and then **Applications**. Verify that the Admin State is set as expected.

The **DSR** Application's Request Message Queue Utilization is approaching its maximum capacity. This alarm should not normally occur when no other congestion alarms are asserted.

2. Application Routing might be mis-configured and is sending too much traffic to the **DSR** Application. Verify the configuration by selecting **Diameter**, and then **Configuration**, and then **Application Routing Rules**.
3. If no additional congestion alarms are asserted, the **DSR** Application Task might be experiencing a problem that is preventing it from processing message from its Request Message Queue. Examine the Alarm log in **Alarms & Events**
4. If the problem persists, it is recommended to contact [#unique_131](#).

3.23.19 RxFabrRequestProcessed

Measurement ID

10660

Measurement GroupDSR Application Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Requests processed by a **DSR** Application during the collection interval.

Collection Interval

5 min

Peg Condition

For each Request message successfully de-queued from the **DSR** Application's Request Message queue.

Measurement Scope

Server Group

Recovery

- No action required.

3.23.20 RxPcaRequestProcessed

Measurement ID

11358

Measurement Group

DSR Application Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Requests processed by Policy and Charging DSR Application during the collection interval

Collection Interval

5 min

Peg Condition

Each time a Diameter Request message is successfully de-queued from the Policy and Charging DSR Application's Request Message queue.

Measurement Scope

Server Group

Recovery

- No action required.

3.23.21 RxPcaAnswerProcessed

Measurement ID

11359

Measurement Group

DSR Application Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Diameter Answer messages processed by Policy and Charging DSR Application.

Collection Interval

5 min

Peg Condition

Each time a Diameter Answer message is successfully de-queued from the Policy and Charging DSR Application's Request Message queue.

Measurement Scope

Server Group

Recovery

- No action required.

3.23.22 RxPcaMsgRateAvg

Measurement ID

11361

Measurement Group

DSR Application Performance

Measurement Type

Average

Measurement Dimension

Single

Description

Average Policy and Charging DSR Application's Ingress Message Rate measured during the collection interval

Collection Interval

5 min

Peg Condition

When the average of all DSR Application Ingress Message Rate samples is taken during the collection interval.

Measurement Scope

Server Group

Recovery

1. Display and monitor the DSR Application message rate by selecting **Diameter**, and then **Maintenance**, and then **Applications**. Verify that the message rate is set as expected.
2. Application Routing might be mis-configured and is sending too much traffic to the DSR Application. Verify the configuration by selecting **Diameter**, and then **Configuration**, and then **Application Routing Rules**.
3. There might be an insufficient number of MPs configured to handle the network load. Monitor the traffic rate of each **MP** by selecting **Diameter**, and then **Status & Manage**, and then **KPIs**.

If MPs are in a congestion state, then the offered load to the server site is exceeding its capacity.

4. If the problem persists, it is recommended to contact [#unique_131](#).

3.23.23 RxPcaMsgRatePeak

Measurement ID

11362

Measurement Group

DSR Application Performance

Measurement Type

Max

Measurement Dimension

Single

Description

Peak Policy and Charging DSR Application's Ingress Message Rate measured during the collection interval

Collection Interval

5 min

Peg Condition

When the maximum of all DSR Application Ingress Message Rate samples is taken during the collection interval.

Measurement Scope

Server Group

Recovery

1. Display and monitor the DSR Application message rate by selecting **Diameter**, and then **Maintenance**, and then **Applications**. Verify that the message rate is set as expected.

2. Application Routing might be mis-configured and is sending too much traffic to the DSR Application. Verify the configuration by selecting **Diameter**, and then **Configuration**, and then **Application Routing Rules**.

3. There might be an insufficient number of MPs configured to handle the network load. Monitor the traffic rate of each **MP** by selecting **Diameter**, and then **Status & Manage**, and then **KPIs**.

If MPs are in a congestion state, then the offered load to the server site is exceeding its capacity.

4. If the problem persists, it is recommended to contact [#unique_131](#).

3.23.24 RxRbarMsgRateAvg

Measurement ID

10305

Measurement Group

DSR Application Performance

Measurement Type

Average

Measurement Dimension

Single

Description

Average DSR Application's Ingress Message Rate measured during the collection interval

Collection Interval

5 min

Peg Condition

When the average of all DSR Application Ingress Message Rate samples is taken during the collection interval.

Measurement Scope

Server Group

Recovery

1. Display and monitor the DSR Application message rate by selecting **Diameter**, and then **Maintenance**, and then **Applications**. Verify that the message rate is set as expected.

2. Application Routing might be mis-configured and is sending too much traffic to the DSR Application. Verify the configuration by selecting **Diameter**, and then **Configuration**, and then **Application Routing Rules**.

3. There might be an insufficient number of MPs configured to handle the network load. Monitor the traffic rate of each **MP** by selecting **Diameter**, and then **Status & Manage**, and then **KPIs**.

If MPs are in a congestion state, then the offered load to the server site is exceeding its capacity.

4. If the problem persists, it is recommended to contact [#unique_131](#).

3.23.25 RxRbarMsgRatePeak

Measurement ID

10304

Measurement Group

DSR Application Performance

Measurement Type

Max

Measurement Dimension

Single

Description

Peak DSR Application's Ingress Message Rate measured during the collection interval

Collection Interval

5 min

Peg Condition

When the maximum DSR Application Ingress Message Rate sample is taken during the collection interval

Measurement Scope

Server Group

Recovery

1. Display and monitor the DSR Application message rate by selecting **Diameter**, and then **Maintenance**, and then **Applications**. Verify that the message rate is set as expected.
2. Application Routing might be mis-configured and is sending too much traffic to the DSR Application. Verify the configuration by selecting **Diameter**, and then **Configuration**, and then **Application Routing Rules**.
3. There might be an insufficient number of MPs configured to handle the network load. Monitor the traffic rate of each **MP** by selecting **Diameter**, and then **Status & Manage**, and then **KPIs**.

If MPs are in a congestion state, then the offered load to the server site is exceeding its capacity.
4. If the problem persists, it is recommended to contact [#unique_131](#).

3.23.26 RxRbarRequestMsgQueueAvg

Measurement ID

10301

Measurement Group

DSR Application Performance

Measurement Type

Average

Measurement Dimension

Single

Description

Average Request Message Queue utilization (0-100%) measured during the collection interval

Collection Interval

5 min

Peg Condition

When the average of all Request Message Queue utilization samples is taken during the collection interval.

Measurement Scope

Server Group

Recovery

1. Display and monitor the DSR Application status by selecting **Diameter**, and then **Maintenance**, and then **Applications**. Verify that the Operational Reason, which indicates congestion level, is set as expected.

The DSR Application's Request Message Queue Utilization is approaching its maximum capacity. This alarm should not normally occur when no other congestion alarms are asserted.

2. Application Routing might be mis-configured and is sending too much traffic to the DSR Application. Verify the configuration by selecting **Diameter**, and then **Configuration**, and then **Application Routing Rules**.
3. If no additional congestion alarms are asserted, the DSR Application Task might be experiencing a problem that is preventing it from processing message from its Request Message Queue. Examine the Alarm log in **Alarms & Events**
4. If the problem persists, it is recommended to contact [#unique_131](#).

3.23.27 RxRbarRequestMsgQueuePeak

Measurement ID

10300

Measurement Group

DSR Application Performance

Measurement Type

Max

Measurement Dimension

Single

Description

Peak DSR Application's Request Message Queue utilization (0-100%) measured during the collection interval

Collection Interval

5 min

Peg Condition

When the maximum Request Message Queue utilization sample is taken during the collection interval.

Measurement Scope

Server Group

Recovery

1. Display and monitor the DSR Application status by selecting **Diameter**, and then **Maintenance**, and then **Applications**. Verify that the Operational Reason, which indicates congestion level, is set as expected.

The DSR Application's Request Message Queue Utilization is approaching its maximum capacity. This alarm should not normally occur when no other congestion alarms are asserted.

2. Application Routing might be mis-configured and is sending too much traffic to the DSR Application. Verify the configuration by selecting **Diameter**, and then **Configuration**, and then **Application Routing Rules**.
3. If no additional congestion alarms are asserted, the DSR Application Task might be experiencing a problem that is preventing it from processing message from its Request Message Queue. Examine the Alarm log in **Alarms & Events**
4. If the problem persists, it is recommended to contact [#unique_131](#).

3.23.28 RxRbarRequestProcessed

Measurement ID

10350

Measurement Group

DSR Application Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Requests processed by a DSR Application during the collection interval

Collection Interval

5 min

Peg Condition

When a Request message is successfully de-queued from the DSR Application's Request Message queue.

Measurement Scope

Server Group

Recovery

- No action required.

3.23.29 TxApplTransSuccess

Measurement ID

10014

Measurement Group

DSR Application Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by DSR Application ID)

Description

Number of Request messages received from a DSR Application.

Collection Interval

5 min

Peg Condition

When DRL successfully receives a Request message from a DSR Application.

Measurement Scope

Server Group

Recovery

- No action required.

3.24 Diameter Egress Transaction measurements

The Diameter Egress Transaction measurement report contains measurements providing information about Diameter peer-to-peer transactions forwarded to upstream peers.

3.24.1 RxAnswerExpectedAll

Measurement ID

10040

Measurement Group

Diameter Egress Transaction, Diameter Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of valid Answer messages received from an upstream peer that were associated with a pending transaction.

Collection Interval

5 min

Peg Condition

When the DSR receives an Answer message event with a valid transport connection ID for which a pending transaction is found.

The connection measurement is associated with the connection from which the Answer message was received.

Measurement Scope

Server Group

Recovery

- No action required.

3.24.2 RxAnswerMsgQueueFullDiscard

Measurement ID

10232

Measurement Group

Diameter Egress Transaction, Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress Diameter Answer messages that were discarded because the Answer Message Queue was full.

Collection Interval

5 min

Peg Condition

For each Answer message discarded because the Answer Message Queue was full.

The connection measurement is associated with the connection from which the message was received.

Measurement Scope

Server Group

Recovery

1. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an **MP** over several collection intervals, then the number of MPs in the Network Element may need to be increased.
2. If the peak and average for an individual **MP** is significantly different than other MPs in the same Network Element then an MP-specific hardware, software, or configuration problem may exist or a Diameter peer and/or DNS routing mis-configuration problem may exist.
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.24.3 RxRedirectHostNotRouted

Measurement ID

14071

Measurement Group

Diameter Egress Transaction

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Redirect Host Notifications received for which a Redirected Request was not submitted for rerouting.

Collection Interval

5 min

Peg Condition

When **DRL**, for any reason, does not submit the Redirected Request message for routing.

The connection measurement is associated with the connection from which the Redirect Notification was received.

Measurement Scope

Site

Recovery

- No action required.

3.24.4 RxRedirectHostRouted

Measurement ID

14070

Measurement Group

Diameter Egress Transaction

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Redirect Host Notifications received for which the Redirect-Host AVP has been updated and submitted for rerouting.

Collection Interval

5 min

Peg Condition

When **DRL** successfully queues a Redirected Request message for routing. The connection measurement is associated with the Connection from which the Redirect Notification was received.

Measurement Scope

Site

Recovery

- No action required.

3.24.5 RxRedirectRealmNotRouted

Measurement ID

14073

Measurement Group

Diameter Egress Transaction

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Redirect Realm Notifications received for which a Redirected Request was not submitted for rerouting.

Collection Interval

5 min

Peg Condition

When **DRL**, for any reason, does not submit the Redirected Request message for routing. The connection measurement is associated with the connection from which the Redirect Notification was received.

Measurement Scope

Site

Recovery

- No action required.

3.24.6 RxRedirectRealmRouted

Measurement ID

14072

Measurement Group

Diameter Egress Transaction

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Redirect Realm Notifications received for which the Redirect-Host AVP has been updated and submitted for rerouting.

Collection Interval

5 min

Peg Condition

When **DRL** successfully queues a Redirected Request message for routing. The connection measurement is associated with the connection from which the Redirect Notification was received.

Measurement Scope

Site

Recovery

- No action required.

3.24.7 TxAnswerTimeout

Measurement ID

10044

Measurement Group

Diameter Egress Transaction

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of times that an Answer response was not received from a peer before the maximum allowed time defined by the “Pending Answer Timer” value. Answer timeouts can be caused by a variety of reasons:

- The peer associated with this connection may be experiencing congestion, causing delays in sending the Answer response.
- IP Network congestion.
- If the peer associated with this connection is a Diameter **Relay Agent**, then an upstream node from the peer may be experiencing congestion, causing delays in sending the Answer response.

Collection Interval

5 min

Peg Condition

When timer PENDING-ANSWER-TIMER expires. The connection measurement is associated with the connection from which the corresponding Request message was sent.

Measurement Scope

Server Group

Recovery

1. If the user-configurable answer response timer is set too low it can cause the timer to expire before a Answer response is received. The user-configurable value is set using the page **Diameter**, and then **Configuration**, and then **System Options**.
2. It is recommended to contact [#unique_131](#) for assistance if needed.

3.24.8 TxAnswerTimeoutAllMp

Measurement ID

14075

Measurement Group

Diameter Egress Transaction

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of times that an Answer response was not received from a peer before the maximum allowed time defined by the "Pending Answer Timer" value.

Collection Interval

5 min

Peg Condition

When timer PENDING-ANSWER-TIMER expires.

The connection measurement is associated with the connection from which the corresponding Request message was sent.



Note:

This measurement is the DA-MP equivalent to the "per connection" measurement [TxAnswerTimeout](#).

Measurement Scope

Site

Recovery

1. If the user-configurable answer response timer is set too low it can cause the timer to expire before a Answer response is received. The user-configurable value is set using the page **Diameter**, and then **Configuration**, and then **System Options**.
2. It is recommended to contact [#unique_131](#) for assistance if needed.

3.24.9 TxAnswerTimeoutMp

Measurement ID

14075

Measurement Group

Diameter Egress Transaction

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of times that an Answer response was not received from a peer before the maximum allowed time defined by the "Pending Answer Timer" value.

Collection Interval

5 min

Peg Condition

When timer PENDING-ANSWER-TIMER expires. The connection measurement is associated with the connection from which the corresponding Request message was sent.



Note:

This is the DA-MP equivalent to the "per connection" measurement, [TxAnswerTimeout](#).

Measurement Scope

Site

Recovery

1. If the user-configurable answer response timer is set too low it can cause the timer to expire before an Answer response is received. The user-configurable value is set using the page **Diameter**, and then **Configuration**, and then **System Options**.
2. It is recommended to contact [#unique_131](#) for assistance if needed.

3.24.10 TxConnectionFailed

Measurement ID

10046

Measurement Group

Diameter Egress Transaction

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of times that a pending peer-to-peer transaction was abandoned due to a transport connection failure.

Collection Interval

5 min

Peg Condition

When a pending transaction is rerouted due to a transport connection failure. This connection measurement is associated with the connection to which the corresponding Request message was sent.

Measurement Scope

Server Group

Recovery

1. Connection status can be monitored using the **Diameter**, and then **Maintenance**, and then **Connections** page.
2. It is recommended to contact [#unique_131](#) for assistance if needed.

3.24.11 TxConnAnswerMsgs

Measurement ID

10154

Measurement Group

Diameter Egress Transaction, Diameter Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of routable Answer messages successfully sent on the connection.

Collection Interval

5 min

Peg Condition

Pegged when a Diameter Answer message is sent to the peer.

Measurement Scope

Server Group

Recovery

- No action required.

3.24.12 TxConnRequestMsgs

Measurement ID

10153

Measurement Group

Diameter Egress Transaction, Diameter Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of routable Request messages successfully sent on the connection.

Collection Interval

5 min

Peg Condition

Pegged when a Diameter request message is sent to the peer.

Measurement Scope

Server Group

Recovery

- No action required.

3.24.13 TxRequestSuccessAllConn

Measurement ID

10043

Measurement Group

Diameter Egress Transaction

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Request messages successfully routed to a peer.

Collection Interval

5 min

Peg Condition

When the DSR successfully queues a Request message to the DCL.
The connection measurement is associated with the connection to which the Request message was sent.

Measurement Scope

Server Group

Recovery

- No action required.

3.25 Diameter Exception measurements

The Diameter Exception measurement report contains measurements that provide information about exceptions and unexpected messages and events that are specific to the Diameter protocol.

3.25.1 EvAppIdListInconsistency

Measurement ID

10009

Measurement Group

Diameter Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

Number of times that the supported Application IDs received from the peer were inconsistent with another transport connection.

Collection Interval

5 min

Peg Condition

If the Application ID list received from the DSR for a peer's transport connection is not identical to the Application ID list for at least one of the transport connections for a peer that has an Operation Status state of Available.

Measurement Scope

Server Group

Recovery

1. If one or more MPs in a server site have failed, the traffic will be distributed between the remaining MPs in the server site. **MP** server status can be monitored from the **Status & Manage**, and then **Server** page.
2. The mis-configuration of Diameter peers may result in too much traffic being distributed to the MP. The ingress traffic rate of each **MP** can be monitored from the **Status & Manage**, and then **KPIs** page. Each **MP** in the server site should be receiving approximately the same ingress transaction per second.
3. There may be an insufficient number of MPs configured to handle the network traffic load. The ingress traffic rate of each **MP** can be monitored from the **Status & Manage**, and

then **KPIs** page. If all MPs are in a congestion state then the offered load to the server site is exceeding its capacity.

4. If no additional congestion alarms are asserted, the DSR may be experiencing a problem preventing it from processing events from its All-Connections Event Queue. The alarm log should be examined using the **Alarms & Events** page.
5. If the problem persists, it is recommended to contact [#unique_131](#).

3.25.2 EvTransLifetimeExceededMp

Measurement ID

10098

Measurement Group

Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of transaction failures because “Transaction Lifetime” exceeded.

Collection Interval

5 min

Peg Condition

When the **DRL** was prevented from rerouting a Request message because the “Transaction Lifetime” was exceeded.

Measurement Scope

Site

Recovery

- No action required.

3.25.3 EvTransRejectedByExternalNode

Measurement ID

14068

Measurement Group

Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of transactions rejected by an external node with a non-2xxx Result-Code value.

Collection Interval

5 min

Peg Condition

When DSR successfully relays an answer response received from an upstream external node to a downstream external node and the answer contains a failure response (i.e., a Result-Code AVP value not in the range of 2000-2099)

**Note:**

This measurement is not pegged for answer generated by application.

Measurement Scope

Server Group

Recovery

- No action required.

3.25.4 RxAnswerMsgQueueFullDiscard

Measurement ID

10232

Measurement Group

Diameter Egress Transaction, Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress Diameter Answer messages that were discarded because the Answer Message Queue was full.

Collection Interval

5 min

Peg Condition

For each Answer message discarded because the Answer Message Queue was full. The connection measurement is associated with the connection from which the message was received.

Measurement Scope

Server Group

Recovery

1. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an MP over

several collection intervals, then the number of MPs in the Network Element may need to be increased.

2. If the peak and average for an individual **MP** is significantly different than other MPs in the same Network Element then an MP-specific hardware, software, or configuration problem may exist or a Diameter peer and/or DNS routing mis-configuration problem may exist.
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.25.5 RxAnswerUnexpected

Measurement ID

10008

Measurement Group

Diameter Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of valid Answer messages received from an upstream peer that could not be associated with a pending transaction.

Collection Interval

5 min

Peg Condition

When the DRL receives an Answer message event from DCL/RCL with a valid transport connection ID for which a pending transaction is found.

The connection measurement is associated with the connection from which the Answer message was received.

Measurement Scope

Server Group

Recovery

- No action required.

3.25.6 RxAnswerUnexpectedAllMp

Measurement ID

14064

Measurement Group

Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Answer messages received from an upstream peer that could not be associated with a pending transaction.

Collection Interval

5 min

Peg Condition

When DRL receives an answer message event from DCL/RCL with a valid Diameter Connection ID for which a pending transaction cannot be found
The connection measurement is associated with the connection from which the Answer message was received.

Measurement Scope

Server Group

Recovery

- No action required.

3.25.7 RxMsgsOCGreenPri0DiscardMp

Measurement ID

10276

Measurement Group

Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Green ingress Priority 0 messages discarded by the **DA-MP** Overload Control component.

Collection Interval

5 min

Peg Condition

Each time a Priority 0 Diameter Request message marked "Green" arrives at the DA-MP Overload Control component

Measurement Scope

Site

Recovery

1. If one or more **MPs** in a server site have failed, the traffic will be distributed amongst the remaining MPs in the server site. Monitor the DA-MP server status from **Main Menu**, and then **Status & Manage**, and then **Server Status**.

2. The mis-configuration of Diameter peers may result in too much traffic being distributed to the MP. Monitor the ingress traffic rate of each DA-MP from **Main Menu**, and then **Status & Manage**, and then **KPIs**. Each DA-MP in the server site should be receiving approximately the same ingress transaction per second.
3. There may be an insufficient number of MPs configured to handle the network traffic load. Monitor the ingress traffic rate of each DA-MP from **Main Menu**, and then **Status & Manage**, and then **KPIs**. If all MPs are in a congestion state, then the offered load to the server site is exceeding its capacity.
4. The Diameter Process may be experiencing problems. Examine the alarm log from **Main Menu**, and then **Alarms & Events**.
5. If the problem persists, it is recommended to contact [#unique_131](#).

3.25.8 RxMsgsOCYellowPri0DiscardMp

Measurement ID
10277

Measurement Group
Diameter Exception

Measurement Type
Simple

Measurement Dimension
Single

Description
The number of Yellow ingress Priority 0 messages discarded by the **DA-MP** Overload Control component.

Collection Interval
5 min

Peg Condition
Each time a Priority 0 Diameter Request message marked "Yellow" arrives at the DA-MP Overload Control component

Measurement Scope
Site

Recovery

1. If one or more **MPs** in a server site have failed, the traffic will be distributed amongst the remaining MPs in the server site. Monitor the DA-MP server status from **Main Menu**, and then **Status & Manage**, and then **Server Status**.
2. The mis-configuration of Diameter peers may result in too much traffic being distributed to the MP. Monitor the ingress traffic rate of each DA-MP from **Main Menu**, and then **Status & Manage**, and then **KPIs**. Each DA-MP in the server site should be receiving approximately the same ingress transaction per second.
3. There may be an insufficient number of MPs configured to handle the network traffic load. Monitor the ingress traffic rate of each DA-MP from **Main Menu**, and then **Status & Manage**, and then **KPIs**. If all MPs are in a congestion state, then the offered load to the server site is exceeding its capacity.

4. The Diameter Process may be experiencing problems. Examine the alarm log from **Main Menu**, and then **Alarms & Events**.
5. If the problem persists, it is recommended to contact [#unique_131](#).

3.25.9 RxMsgsOCGreenPri1DiscardMp

Measurement ID

10278

Measurement Group

Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Green ingress Priority 1 messages discarded by the **DA-MP** Overload Control component.

Collection Interval

5 min

Peg Condition

Each time a Priority 1 Diameter Request message marked "Green" arrives at the DA-MP Overload Control component

Measurement Scope

Site

Recovery

1. If one or more **MPs** in a server site have failed, the traffic will be distributed amongst the remaining **MPs** in the server site. Monitor the DA-MP server status from **Main Menu**, and then **Status & Manage**, and then **Server Status**.
2. The mis-configuration of Diameter peers may result in too much traffic being distributed to the MP. Monitor the ingress traffic rate of each DA-MP from **Main Menu**, and then **Status & Manage**, and then **KPIs**. Each DA-MP in the server site should be receiving approximately the same ingress transaction per second.
3. There may be an insufficient number of **MPs** configured to handle the network traffic load. Monitor the ingress traffic rate of each DA-MP from **Main Menu**, and then **Status & Manage**, and then **KPIs**. If all **MPs** are in a congestion state, then the offered load to the server site is exceeding its capacity.
4. The Diameter Process may be experiencing problems. Examine the alarm log from **Main Menu**, and then **Alarms & Events**.
5. If the problem persists, it is recommended to contact [#unique_131](#).

3.25.10 RxMsgsOCYellowPri1DiscardMp

Measurement ID

10279

Measurement Group

Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Yellow ingress Priority 1 messages discarded by the **DA-MP** Overload Control component.

Collection Interval

5 min

Peg Condition

Each time a Priority 1 Diameter Request message marked "Yellow" arrives at the DA-MP Overload Control component

Measurement Scope

Site

Recovery

1. If one or more **MPs** in a server site have failed, the traffic will be distributed amongst the remaining **MPs** in the server site. Monitor the DA-MP server status from **Main Menu**, and then **Status & Manage**, and then **Server Status**.
2. The mis-configuration of Diameter peers may result in too much traffic being distributed to the MP. Monitor the ingress traffic rate of each DA-MP from **Main Menu**, and then **Status & Manage**, and then **KPIs**. Each DA-MP in the server site should be receiving approximately the same ingress transaction per second.
3. There may be an insufficient number of **MPs** configured to handle the network traffic load. Monitor the ingress traffic rate of each DA-MP from **Main Menu**, and then **Status & Manage**, and then **KPIs**. If all **MPs** are in a congestion state, then the offered load to the server site is exceeding its capacity.
4. The Diameter Process may be experiencing problems. Examine the alarm log from **Main Menu**, and then **Alarms & Events**.
5. If the problem persists, it is recommended to contact [#unique_131](#).

3.25.11 RxMsgsOCGreenPri2DiscardMp

Measurement ID

10280

Measurement Group

Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Green ingress Priority 2 messages discarded by the **DA-MP** Overload Control component.

Collection Interval

5 min

Peg Condition

Each time a Priority 2 Diameter Request message marked "Green" arrives at the DA-MP Overload Control component

Measurement Scope

Site

Recovery

1. If one or more **MPs** in a server site have failed, the traffic will be distributed amongst the remaining **MPs** in the server site. Monitor the DA-MP server status from **Main Menu**, and then **Status & Manage**, and then **Server Status**.
2. The mis-configuration of Diameter peers may result in too much traffic being distributed to the MP. Monitor the ingress traffic rate of each DA-MP from **Main Menu**, and then **Status & Manage**, and then **KPIs**. Each DA-MP in the server site should be receiving approximately the same ingress transaction per second.
3. There may be an insufficient number of **MPs** configured to handle the network traffic load. Monitor the ingress traffic rate of each DA-MP from **Main Menu**, and then **Status & Manage**, and then **KPIs**. If all **MPs** are in a congestion state, then the offered load to the server site is exceeding its capacity.
4. The Diameter Process may be experiencing problems. Examine the alarm log from **Main Menu**, and then **Alarms & Events**.
5. If the problem persists, it is recommended to contact [#unique_131](#).

3.25.12 RxMsgsOCYellowPri2DiscardMp

Measurement ID

10281

Measurement Group

Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Yellow ingress Priority 2 messages discarded by the **DA-MP** Overload Control component.

Collection Interval

5 min

Peg Condition

Each time a Priority 2 Diameter Request message marked "Yellow" arrives at the DA-MP Overload Control component

Measurement Scope

Site

Recovery

1. If one or more **MPs** in a server site have failed, the traffic will be distributed amongst the remaining **MPs** in the server site. Monitor the DA-MP server status from **Main Menu**, and then **Status & Manage**, and then **Server Status**.
2. The mis-configuration of Diameter peers may result in too much traffic being distributed to the MP. Monitor the ingress traffic rate of each DA-MP from **Main Menu**, and then **Status & Manage**, and then **KPIs**. Each DA-MP in the server site should be receiving approximately the same ingress transaction per second.
3. There may be an insufficient number of **MPs** configured to handle the network traffic load. Monitor the ingress traffic rate of each DA-MP from **Main Menu**, and then **Status & Manage**, and then **KPIs**. If all **MPs** are in a congestion state, then the offered load to the server site is exceeding its capacity.
4. The Diameter Process may be experiencing problems. Examine the alarm log from **Main Menu**, and then **Alarms & Events**.
5. If the problem persists, it is recommended to contact [#unique_131](#).

3.25.13 TmConnDegraded

Measurement ID

10183

Measurement Group

Diameter Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

Total time (in seconds) during the reporting period that the connection state was in the Degraded state.

Collection Interval

5 min

Peg Condition

Pegging started when a peer enters the Degraded state. Pegging stopped when the peer enters the Available or Unavailable state.

A peer may be degraded for short periods of time (< 30 seconds) due to being in a proving period or during a graceful disconnect; degraded conditions lasting longer periods of time are most likely due to local congestion.

Measurement Scope

Server Group

Recovery

1. If this measurement indicates an excessive amount of time spent in the degraded state, examine the Alarm History to determine the cause of the degraded condition.
2. It is recommended to contact [#unique_131](#) for assistance if needed.

3.25.14 TmConnEnabledNotAvail

Measurement ID

10182

Measurement Group

Diameter Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

Total time (in seconds) during the reporting period that the connection state was administratively enabled and the connection state was not Available.

Collection Interval

5 min

Peg Condition

Pegging is started when a peer is enabled or when a peer disconnects. Pegging is stopped when the peer connects and completes capabilities exchange, or when the connection is disabled.

Measurement Scope

Server Group

Recovery

1. Examine the Alarm History to determine if the connection is being rejected by either end, and for notification of local congestion.
2. Make sure the peer is running.
3. If the connection is configured as a Responder connection, make sure that the peer is attempting to initiate a connection.
4. If the connection is an Initiator connection, make sure that the peer is listening on the configured port.
5. It is recommended to contact [#unique_131](#) for assistance if needed.

3.25.15 TxDtIsOversizedDiscard

Measurement ID

10515

Measurement Group

Diameter Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of oversized egress messages discarded on the **DTLS** connection.

Collection Interval

5 min

Peg Condition

When the message size to be sent on the DTLS connection is greater than 16K (16384) bytes.

Measurement Scope

Server Group

Recovery

- No action required.

3.25.16 TxReqMsgPerConnPtrMax

Measurement ID

10007

Measurement Group

Diameter Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of times message routing bypassed the connection because the maximum allowed pending transactions was exceeded.

Collection Interval

5 min

Peg Condition

Each time the DSR bypasses a transport connection during route selection because the maximum number of pending transactions allowed for the connection was exceeded. The connection measurement is pegged against the egress connection with the maximum number of pending transactions condition which prevented message routing.

Measurement Scope

Server Group

Recovery

1. If one or more MPs in a server site have failed, the traffic will be distributed between the remaining MPs in the server site. **MP** server status can be monitored from the **Status & Manage**, and then **Server** page.
2. The mis-configuration of Diameter peers may result in too much traffic being distributed to the MP. The ingress traffic rate of each **MP** can be monitored from the **Status & Manage**, and then **KPIs** page. Each **MP** in the server site should be receiving approximately the same ingress transaction per second.
3. There may be an insufficient number of MPs configured to handle the network traffic load. The ingress traffic rate of each **MP** can be monitored from the **Status & Manage**, and then **KPIs** page. If all MPs are in a congestion state then the offered load to the server site is exceeding its capacity.
4. If no additional congestion alarms are asserted, the DSR may be experiencing a problem preventing it from processing messages from its Request Message Queue. The alarm log should be examined from the **Alarms & Events** page.
5. If the problem persists, it is recommended to contact [#unique_131](#).

3.25.17 TxRequestEgressLoop

Measurement ID

10005

Measurement Group

Diameter Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of times that a selected route associated with an egress peer was not selected because a forwarding loop would occur (i.e., the upstream peer has already processed the Request message as determined by the Route-Record AVPs).

Collection Interval

5 min

Peg Condition

Each time the DSR bypasses a peer during route selection because the peer's FQDN matches one of the FQDNs in the message's Route-Record AVPs. The connection measurement is associated with the first connection assigned to the peer.

**Note:**

This failure is associated with the peer, not any particular connection. The measurement should always be pegged against the same peer connection, i.e., the first one assigned to the peer.

Measurement Scope

Server Group

Recovery

- It is recommended to contact [#unique_131](#) for assistance if needed.

3.26 Diameter Ingress Transaction Exception measurements

The Diameter Ingress Transaction Exception report group contains measurements providing information about exceptions associated with the routing of Diameter transactions received from downstream peers.

3.26.1 RxArtRuleRejection

Measurement ID

14067

Measurement Group

Diameter Ingress Transaction Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Connection ID)

Description

The number of Request messages from a downstream peer rejected by a local node because an application routing rule Action is set to "Send Answer" or "Abandon with No Answer".

Collection Interval

5 min

Peg Condition

Each time a Request message from a downstream peer is rejected by a Local node because an application routing rule Action is set to "Send Answer".



Note:

The "connection measurement" is associated with the Diameter Connection from which the Request message was received.

Measurement Scope

Server Group

Recovery

- No action necessary

3.26.2 RxDecodeFailure

Measurement ID

10031

Measurement Group

Diameter Ingress Transaction Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

Number of Request messages rejected from a downstream peer because the message could not be decoded.

Collection Interval

5 min

Peg Condition

Request message from a downstream peer is rejected by a Local Node because it could not be decoded.

The connection measurement is associated with the connection from which the Request message was received.

Measurement Scope

Server Group

Recovery

1. These protocol violations are caused by the originator of the message (identified by the Origin-Host AVP in the message) or the peer that forwarded the message to this node (identified by the peer name) and cannot be fixed using the application.
2. It is recommended to contact [#unique_131](#) for assistance if needed.

3.26.3 RxDOCDiscardMp

Measurement ID

10252

Measurement Group

Diameter Ingress Transaction Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress messages that were discarded due to local DA-MP danger of CPU congestion.

Collection Interval

5 min

Peg Condition

Pegged for each message discarded due to DA-MP danger of CPU congestion.

Measurement Scope

Server Group

Recovery

1. If one or more MPs in a server site have failed, the traffic will be distributed between the remaining MPs in the server site. **DA-MP** server status can be monitored from the **Status & Manage**, and then **Server** page.
2. The mis-configuration of Diameter peers may result in too much traffic being distributed to the MP. The ingress traffic rate of each **DA-MP** can be monitored from the **Status & Manage**, and then **KPIs** page. Each **DA-MP** in the server site should be receiving approximately the same ingress transaction per second.
3. There may be an insufficient number of MPs configured to handle the network traffic load. The ingress traffic rate of each **DA-MP** can be monitored from the **Status & Manage**, and then **KPIs** page. If all MPs are in a congestion state then the offered load to the server site is exceeding its capacity.
4. The Diameter Process may be experiencing problems. The alarm log should be examined using the **Alarms & Events** page.
5. If the problem persists, it is recommended to contact [#unique_131](#).

3.26.4 RxMessageLooping

Measurement ID

10032

Measurement GroupDiameter Ingress Transaction Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Request messages from a downstream peer rejected by a Local Node because message looping was detected (FQDN of the Local Node associated with the ingress transport connection matched a FQDN in the messages' Route-Record AVPs).

Collection Interval

5 min

Peg Condition

Request message from a downstream peer is rejected by a Local Node with Result-Code 3005 (DIAMETER_LOOP_DETECTED).

The connection measurement is associated with the connection from which the Request message was received.

Measurement Scope

Server Group

Recovery

1. An excessive amount of Request message rerouting may have been triggered by either connection failures or Answer timeouts. The status of connections should be examined from the **Diameter**, and then **Maintenance**, and then **Connections** page.
2. If no additional congestion alarms are asserted, the routing Answer task may be experiencing a problem preventing it from processing messages from its Answer Message Queue. The alarm log should be examined using the **Alarms & Events** page.
3. If the problem persists, it is recommended to contact [#unique_131](#).

3.26.5 RxNoRoutesFound

Measurement ID

10035

Measurement Group

Diameter Ingress Transaction Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

Number of Request messages from a downstream peer rejected by a Local Node because no routes were available for routing the message.

Collection Interval

5 min

Peg Condition

Request message from a downstream peer is rejected by a Local Node because no routes were available for routing the message. A No Routes Available condition occurs when:

- A Route List was selected via a Peer Routing Rule or implicit routing but its Operational Status was Unavailable
- Implicit routing was invoked and the peer's Operational Status was not Available and an alternate implicit route was not provisioned for the peer
- Implicit routing was invoked but failed to find a route list by matching the configured realm/application ID (using the Realm Route table); or failed to select a valid egress connection from the matched route list

The connection measurement is associated with the connection from which the Request message was received.

Measurement Scope

Server Group

Recovery

1. If the message matched a Peer Routing Rule but none of the peers in the Route List were eligible for routing the message because either their operation state was Unavailable, the Application ID in the Request message did not match an application ID supported by the peer, or the peer had previously processed the message as defined by the Route-Record AVPs in the message:
 - a. Verify that IP network connectivity exists between the MP server and the peers.
 - b. Check the event history logs for additional DIAM events or alarms from this **MP** server.
 - c. Verify that the peers in the Route List are not under maintenance. It is recommended to contact [#unique_131](#) for assistance if needed.
2. If the message was addressed to a peer directly connected to the Local Node via the Destination-Host AVP but the peer's operational status was Unavailable or the alternate path to the peer, designated by the peer's alternate implicit route was either not provisioned or was Unavailable:
 - a. Verify that IP network connectivity exists between the MP server and the adjacent servers.
 - b. Check the event history logs for additional DIAM events or alarms from this **MP** server.
 - c. Verify that the peer is not under maintenance.
3. If the message was addressed to a peer directly connected to the Local Node via the Destination-Host AVP but the application ID in the Request message did not match an Application ID supported by the peer:
 - a. The mis-configuration of Diameter peers may result in too much traffic being distributed to the MP. The ingress traffic rate of each **MP** can be monitored from the **Status & Manage**, and then **KPIs** page. Each **MP** in the server site should be receiving approximately the same ingress transaction per second.
 - b. There may be an insufficient number of MPs configured to handle the network traffic load. The ingress traffic rate of each **MP** can be monitored from the **Status & Manage**, and then **KPIs** page. If all MPs are in a congestion state then the offered load to the server site is exceeding its capacity.

- c. A software defect may exist resulting in PTR buffers not being deallocated to the pool. This alarm should not normally occur when no other congestion alarms are asserted. The alarm log should be examined from the **Alarms & Events** page.
4. It is recommended to contact [#unique_131](#) for assistance if needed.

3.26.6 RxNoRulesFailure

Measurement ID

10034

Measurement Group

Diameter Ingress Transaction Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Request messages from a downstream peer rejected by a Local Node because no Peer Routing Rule was found.

Collection Interval

5 min

Peg Condition

Request message from a downstream peer is rejected by a Local Node because no Peer Routing Rules were found in the peer routing table and the message was not addressed to a peer (either Destination-Host AVP was absent or Destination-Host AVP was present but was not a peer's FQDN) or a configured Realm/Application-Id (via the Realm Route Table). The connection measurement is associated with the connection from which the Request message was received.

Measurement Scope

Server Group

Recovery

1. If one or more MPs in a server site have failed, the traffic will be distributed between the remaining MPs in the server site. **MP** server status can be monitored from the **Status & Manage**, and then **Server** page.
2. The mis-configuration of Diameter peers may result in too much traffic being distributed to the MP. The ingress traffic rate of each **MP** can be monitored from the **Status & Manage**, and then **KPIs** page. Each **MP** in the server site should be receiving approximately the same ingress transaction per second.
3. There may be an insufficient number of MPs configured to handle the network traffic load. The ingress traffic rate of each **MP** can be monitored from the **Status & Manage**, and then **KPIs** page. If all MPs are in a congestion state then the offered load to the server site is exceeding its capacity.
4. If no additional congestion alarms are asserted, the Routing Answer Task may be experiencing a problem preventing it from processing messages from its Answer Message Queue. The alarm log should be examined from the **Alarms & Events** page.
5. If the problem persists, it is recommended to contact [#unique_131](#).

3.26.7 RxPrtRuleRejection

Measurement ID

10037

Measurement Group

Diameter Ingress Transaction Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Request messages from a downstream peer rejected by a Local Node because a Peer Routing Rule action is set to "Send Answer" or "Abandon with No Answer".

Collection Interval

5 min

Peg Condition

Request message from a downstream peer rejected by a Local Node because a Peer Routing Rule action is set to "Send Answer" or "Abandon with No Answer".

The connection measurement is associated with the connection from which the Request message was received.

Measurement Scope

Site

Recovery

- No action required.

3.26.8 RxRejectedAll

Measurement ID

10030

Measurement Group

Diameter Ingress Transaction Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Request messages rejected from a downstream peer by a Local Node (all reasons).

Collection Interval

5 min

Peg Condition

When measurement [RxRejectedConnCongestion](#), [RxDecodeFailure](#), [RxMessageLooping](#), [RxAllDrop](#), [RxNoRulesFailure](#), [RxNoRoutesFound](#), [RxTransactionTimeout](#), [RxPrtRuleRejection](#), or [RxRejectedOther](#) is pegged.

Measurement Scope

Server Group

Recovery

- No action required.

3.26.9 RxRejectedOther

Measurement ID

10038

Measurement Group

Diameter Ingress Transaction Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Request messages from a downstream peer rejected by a Local Node for any reason other than those identified by measurements [RxDecodeFailure](#), [RxMessageLooping](#), [RxAllDrop](#), [RxNoRulesFailure](#), [RxNoRoutesFound](#), [RxTransactionTimeout](#), [RxArtRuleRejection](#), or [RxPrtRuleRejection](#).

Collection Interval

5 min

Peg Condition

Request message from a downstream peer rejected by a Local Node for any reason other than those identified by measurements [RxDecodeFailure](#), [RxMessageLooping](#), [RxAllDrop](#), [RxNoRulesFailure](#), [RxNoRoutesFound](#), [RxTransactionTimeout](#), [RxArtRuleRejection](#), or [RxPrtRuleRejection](#).

The connection measurement is associated with the connection from which the Request message was received.

Measurement Scope

Server Group

Recovery

- No action required.

3.26.10 RxRequestMsgQueueFullDiscard

Measurement ID

10231

Measurement Group

Diameter Ingress Transaction Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress Diameter Request messages that were discarded because the Request Message Queue was full.

Collection Interval

5 min

Peg Condition

For each Request message discarded because the Request Message Queue was full.

The connection measurement is associated with the connection from which the message was received.

Measurement Scope

Server Group

Recovery

1. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an **MP** over several collection intervals, then the number of MPs in the Network Element may need to be increased.
2. If the peak and average for an individual **MP** is significantly different than other MPs in the same Network Element then an MP-specific hardware, software, or configuration problem may exist or a Diameter peer and/or DNS routing mis-configuration problem may exist.
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.26.11 RxTransactionTimeout

Measurement ID

10036

Measurement Group

Diameter Ingress Transaction Exception

Measurement TypeSimple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Request messages from a downstream peer rejected by a Local Node because maximum message reroutes are exceeded.

Collection Interval

5 min

Peg Condition

Request message from a downstream peer is rejected by a Local Node because maximum number of message reroutes was exceeded.

The connection measurement is associated with the connection from which the Request message was received.

Measurement Scope

Server Group

Recovery

1. If the maximum number of message reroutes is set too low (e.g., zero) then any failure trigger message reroute will fail. The user-configurable value is set using the **Diameter**, and then **Configuration**, and then **System Options** page.
2. If the user-configurable answer response timer is set too low the timer expires before an Answer response is received. The user-configurable value is set using the **Diameter**, and then **Configuration**, and then **System Options** page.
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.26.12 TxLongTimeoutPtrListEmpty

Measurement ID

10296

Measurement Group

Diameter Ingress Transaction Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress Diameter Request messages that were discarded because no Long Timeout PTR Buffers were available.

Collection Interval

5 min

Peg Condition

When any DRL thread within the Diameter Process needs to allocate a Long Timeout PTR Buffer from the Long Timeout PTR Buffer Pool and the number of allocated Long Timeout PTRs from a Long Timeout PTR Buffer Pool is less than the maximum configured capacity of Long Timeout PTR Buffers then:

- A Long Timeout PTR Buffer shall be allocated from the Long Timeout PTR Buffer Pool
- The count for the number of allocated Long Timeout PTRs from a Long Timeout PTR Buffer Pool shall be incremented by one.

Measurement Scope

Server Group

Recovery

1. If both the peak and average measurements for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an MP when the Ingress Message Rate and/or Diameter Process CPU Utilization measurements are below the recommended maximum engineered capacity of an MP, then a network (IP or Diameter) problem may exist. Looking at these measurements on a time of day basis may provide additional insight into potential network problems.
2. If the peak and average for an individual MP is significantly different than other MPs in the same Network Element then an MP-specific software problem may exist (e.g., a buffer pool leak).
3. If the problem persists, it is recommended to contact [#unique_131](#).

3.26.13 TxPtrListEmpty

Measurement ID

10228

Measurement Group

Diameter Ingress Transaction Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress Diameter Request messages that were discarded because no PTR Buffers were available.

Collection Interval

5 min

Peg Condition

When any DRL thread within the Diameter Process needs to allocate a PTR Buffer from the PTR Buffer Pool and the number of allocated PTRs from a PTR Buffer Pool is less than the maximum configured capacity of PTR Buffers then:

- A PTR Buffer shall be allocated from the PTR Buffer Pool
- The count for the number of allocated PTRs from a PTR Buffer Pool shall be incremented by one.

Measurement Scope

Server Group

Recovery

1. If both the peak and average measurements for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an **MP** when the Ingress Message Rate and/or Diameter Process CPU Utilization measurements are below the recommended maximum engineered capacity of an MP, then a network (IP or Diameter) problem may exist. Looking at these measurements on a time of day basis may provide additional insight into potential network problems.
2. If the peak and average for an individual **MP** is significantly different than other MPs in the same Network Element then an MP-specific software problem may exist (e.g., a buffer pool leak).
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.26.14 TxRerouteQueueFullReject

Measurement ID

10241

Measurement Group

Diameter Ingress Transaction Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of egress Diameter Request messages that were rejected because the Reroute Queue was full.

Collection Interval

5 min

Peg Condition

For each Request message rejected because the Reroute Queue was full. The connection measurement is associated with the connection the Request message was received from.

Measurement Scope

Server Group

Recovery

1. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an **MP** over several collection intervals, then the number of MPs in the Network Element may need to be increased.
2. If the peak and average for an individual **MP** is significantly different than other MPs in the same Network Element then an MP-specific hardware, software, or configuration problem may exist or a Diameter peer and/or DNS routing mis-configuration problem may exist.
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.27 Diameter Ingress Transaction Performance measurements

The Diameter Ingress Transaction Performance measurement report contains measurements providing information about the outcome of Diameter transactions received from downstream peers.

3.27.1 TxAnswer1xxx

Measurement ID

10020

Measurement Group

Diameter Ingress Transaction Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Answer responses from peers that were successfully routed to a downstream peer with a Result-Code value 1xxx.

Collection Interval

5 min

Peg Condition

Answer message received from a peer that was successfully sent to the DCL/RCL with a Result-Code value in the range of 1000 - 1999.

The connection measurement is associated with the connection to which the message was routed.

Measurement Scope

Server Group

Recovery

- No action required.

3.27.2 TxAnswer2xxx

Measurement ID

10021

Measurement Group

Diameter Ingress Transaction Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Answer responses from peers that were successfully routed to a downstream peer with a Result-Code value 2xxx.

Collection Interval

5 min

Peg Condition

Answer message received from a peer that was successfully sent to the DCL/RCL with a Result-Code value in the range of 2000 - 2999.

The connection measurement is associated with the connection to which the message was routed.

Measurement Scope

Server Group

Recovery

- No action required.

3.27.3 TxAnswer3xxx

Measurement ID

10022

Measurement Group

Diameter Ingress Transaction Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Answer responses from peers that were successfully routed to a downstream peer with a Result-Code value 3xxx (Protocol Error).

Collection Interval

5 min

Peg Condition

Answer message received from a peer that was successfully sent to the DCL/RCL with a Result-Code value in the range of 3000 - 3999.

The connection measurement is associated with the connection to which the message was routed.

Measurement Scope

Server Group

Recovery

- No action required.

3.27.4 TxAnswer4xxx

Measurement ID

10023

Measurement Group

Diameter Ingress Transaction Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Answer responses from peers that were successfully routed to a downstream peer with a Result-Code value 4xxx (Transient Failure).

Collection Interval

5 min

Peg Condition

Answer message received from a peer that was successfully sent to the DCL/RCL with a Result-Code value in the range of 4000 - 4999.

The connection measurement is associated with the connection to which the message was routed.

Measurement Scope

Server Group

Recovery

- No action required.

3.27.5 TxAnswer5xxx

Measurement ID

10024

Measurement Group

Diameter Ingress Transaction Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Answer responses from peers that were successfully routed to a downstream peer with a Result-Code value 5xxx (Permanent Failure).

Collection Interval

5 min

Peg Condition

Answer message received from a peer that was successfully sent to the DCL/RCL with a Result-Code value in the range of 5000 - 5999.
The connection measurement is associated with the connection to which the message was routed.

Measurement Scope

Server Group

Recovery

- No action required.

3.27.6 TxAnswerFailure

Measurement ID

10027

Measurement Group

Diameter Ingress Transaction Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of (expected) Answer responses from a peer and Answer responses created by a Local Node which were not successfully routed to a downstream peer (for any reason).

**Note:**

An expected Answer response from a peer is an Answer response for which a pending transaction existed.

Collection Interval

5 min

Peg Condition

Any time the DCL/RCL fails to queue an Answer response.
The connection measurement is associated with the connection from which the Request message was received.

Measurement Scope

Server Group

Recovery

- No action required.

3.27.7 TxAnswerLocalNode

Measurement ID

10026

Measurement Group

Diameter Ingress Transaction Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Answer responses from a Local Node that were successfully routed to a downstream peer (all Result-Code values).

Collection Interval

5 min

Peg Condition

Any time the DCL/RCL successfully creates and queues an Answer response to DCL in response to a Request message received from a downstream peer.

The connection measurement is associated with the connection from which the Request message was received.

Measurement Scope

Server Group

Recovery

- No action required.

3.27.8 TxAnswerOther

Measurement ID

10025

Measurement Group

Diameter Ingress Transaction Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Answer responses from peers that were successfully routed to a downstream peer with a Result-Code value not in the range of 1000-5999.

Collection Interval

5 min

Peg Condition

Answer message received from a peer which was successfully sent to the DCL/RCL with either a Result-Code value not in the range of 1000 - 5999 or without a Result-Code AVP. The connection measurement is associated with the connection to which the message was routed.

Measurement Scope

Server Group

Recovery

- No action required.

3.28 Diameter Performance measurements

The Diameter Performance measurement report contains measurements that provide performance information that is specific to the Diameter protocol.

3.28.1 EvPerConnPtrQueueAvg

Measurement ID

10240

Measurement Group

Diameter Performance

Measurement Type

Average

Measurement Dimension

Arrayed (by Connection ID)

Description

The average length of the PTR queue for a connection during the collection interval.

Collection Interval

5 min

Peg Condition

Each time a PTR is dequeued or enqueued on the connection's PTR queue, the average queue length is calculated using the **COMCOL** average measurement type method.

Measurement Scope

Server Group

Recovery

- No action required.

3.28.2 EvPerConnPtrQueuePeak

Measurement ID

10239

Measurement Group

Diameter Performance

Measurement Type

Max

Measurement Dimension

Arrayed (by Connection ID)

Description

The maximum length of the PTR queue for a connection during the collection interval.

Collection Interval

5 min

Peg Condition

Each time a PTR is dequeued or enqueued on the connection's PTR queue, the maximum queue length is calculated using the COMCOL maximum measurement type method.

Measurement Scope

Server Group

Recovery

- No action required.

3.28.3 RoutingMsgs

Measurement ID

10243

Measurement Group

Diameter Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Diameter and RADIUS messages processed by DRL, including Rerouting and Message Copy.

Collection Interval

5 min

Peg Condition

This measurement should be incremented as per the following conditions.

- Ingress RADIUS Request processing resulting in a Request being routed upstream (with or without local DSR application processing of the Request)

- Ingress RADIUS Response processing resulting in forwarding of Answer/Response downstream (with or without local DSR application processing of the Response)
- Ingress Request processing resulting in Answer message sent by DSR to originator (with or without local DSR application processing of the Request)
- Ingress RADIUS Request discarded due to validation error or overload
- Ingress RADIUS Response discarded due to validation error
- Initial copy and transmit of a RADIUS Request to a DAS
- Ingress RADIUS Response triggering reroute of the pending Request message (including Answers from DAS for copied RADIUS Requests)
- RADIUS Request reroute due to connection failure or Answer/Response timeout (including reroute of copied Requests to DAS for same reasons)
- Ingress Answer from a DAS terminated by DSR due to RADIUS Request copy completion or termination

Measurement Scope

Network

Recovery

- No action required.

3.28.4 RxAnswerExpectedAll

Measurement ID

10040

Measurement Group

Diameter Egress Transaction, Diameter Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of valid Answer messages received from an upstream peer that were associated with a pending transaction.

Collection Interval

5 min

Peg Condition

When the DSR receives an Answer message event with a valid transport connection ID for which a pending transaction is found.

The connection measurement is associated with the connection from which the Answer message was received.

Measurement Scope

Server Group

Recovery

- No action required.

3.28.5 RxAnswerExpectedAllMp

Measurement ID

10091

Measurement Group

Diameter Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of valid Answer messages received from an upstream peer that were associated with a pending transaction.

Collection Interval

5 min

Peg Condition

When the **DSR** receives an Answer message event with a valid transport connection ID for which a pending transaction is found.

The connection measurement is associated with the connection from which the Answer message was received.

Measurement Scope

Server Group

Recovery

- No action required.

3.28.6 RxAnswerExpectedRoutedMp

Measurement ID

10092

Measurement Group

Diameter Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of valid Answer messages received from an upstream peer that were successfully routed to a downstream peer.

Collection Interval

5 min

Peg Condition

Measurement Scope

Server Group

Recovery

- No action required.

3.28.7 RxRequestNoErrors

Measurement ID

10003

Measurement Group

Diameter Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of transactions successfully processed on one routing attempt.

Collection Interval

5 min

Peg Condition

When an Answer response from a peer is successfully queued to the DCL/RCL for a transaction and the total number of times that the corresponding Request message has been forwarded to a peer equals "1".

The connection measurement is associated with the connection from which the Request message was received.

Measurement Scope

Server Group

Recovery

- No action required

3.28.8 RxRequestNoErrorsMp

Measurement ID

10094

Measurement Group

Diameter Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of transactions successfully processed on one routing attempt.

Collection Interval

5 min

Peg Condition

When an Answer response from a peer is successfully queued to the DSR for a transaction and the total number of times that the corresponding Request message has been forwarded to a peer equals "1".

The connection measurement is associated with the connection from which the Request message was received.

Measurement Scope

Server Group

Recovery

- No action required.

3.28.9 TmResponseTimeDownstream

Measurement ID

10001

Measurement Group

Diameter Performance

Measurement Type

Average

Measurement Dimension

Arrayed (by Connection ID)

Description

Average time (in milliseconds) from when routing receives a Request message from a downstream peer to the time that an Answer response is sent to that downstream peer.

Collection Interval

5 min

Peg Condition

Time interval for each transaction starts when the DRL successfully decodes an ingress Request message from a downstream peer. Time interval for each transaction stops when the DRL attempts to send an Answer response to the DCL/RCL. This includes Answer messages received from upstream peers and those generated by the DRL.

The connection measurement is associated with the connection from which the Request message was received.

Measurement Scope

Server Group

Recovery

1. If the average is significantly larger than what is considered normal, then additional measurements, such as measurement [TmResponseTimeUpstream](#), should be consulted to assist in determining the source of the delay.
2. It is recommended to contact [#unique_131](#) for assistance if needed.

3.28.10 TmResponseTimeDownstreamMp

Measurement ID

10093

Measurement Group

Diameter Performance

Measurement Type

Average

Measurement Dimension

Single

Description

Average time (in milliseconds) from when routing receives a Request message from a downstream peer to the time that an Answer response is sent to that downstream peer.

Collection Interval

5 min

Peg Condition

Time interval for each transaction starts when the DSR successfully decodes an ingress Request message from a downstream peer. Time interval for each transaction stops when the DSR attempts to send an Answer response. This includes Answer messages received from upstream peers and those generated by the DSR.

The connection measurement is associated with the connection from which the Request message was received.

Measurement Scope

Server Group

Recovery

- No action required.

3.28.11 TmResponseTimeUpstream

Measurement ID

10002

Measurement Group

Diameter Performance

Measurement Type

Average

Measurement Dimension

Arrayed (by Connection ID)

Description

Average time (in milliseconds) from when routing forwards a Request message to an upstream peer to the time that an Answer response is received.

Collection Interval

5 min

Peg Condition

Time interval for each transaction starts when the DRL successfully queues a Request message to the DCL/RCL. Time interval for each transaction stops when the DRL receives an Answer response for the pending transaction associated with the forwarded Request message.

The connection measurement is associated with the connection the Request message is sent to.



Note:

This measurement excludes transactions which are aborted due to a failure (e.g., timer PENDING-ANSWER-TIMER or PENDING-TRANSACTION-TIMER expiration or transport connection failure).

Measurement Scope

Server Group

Recovery

- It is recommended to contact [#unique_131](#) for assistance if needed.

3.28.12 TxRequestSuccessAllMP

Measurement ID

10090

Measurement Group

Diameter Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Request messages successfully routed to a peer.

Collection Interval

5 min

Peg Condition

When the DSR successfully queues a Request message.
The connection measurement is associated with the connection to which the Request message was sent.

Measurement Scope

Server Group

Recovery

- No action required.

3.29 Diameter Rerouting measurements

The Diameter Rerouting measurement report is a set of measurements which allows the user to evaluate the amount of message rerouting attempts which are occurring, the reasons for why message rerouting is occurring, and the success rate of message rerouting attempts.

3.29.1 MpRerouteToRequestRatio

Measurement ID

14014

Measurement Group

Diameter Rerouting

Measurement Type

Average

Measurement Dimension

Single

Description

Ratio of Request reroutes due to Answer Result-Code and/or Answer timeout to Total Requests routed by DSR.

Collection Interval

5 min

Peg Condition

The numerator of this measurement is pegged when request message reroute is triggered under these conditions:

- When DRL does not receive an answer from an upstream Peer Node within the PAT expiry.
- When DRL receives an Answer response from an upstream Peer Node and it finds a match in the Reroute on Answer table.

The denominator of this measurement is pegged under these scenarios:

- First attempt of Request routing

- First attempt of Message Copy Request routing

Measurement Scope

Site

Recovery

- No action required.

3.29.2 RxRerouteAnswerRsp

Measurement ID

10054

Measurement Group

Diameter Rerouting

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of valid Answer messages received from an upstream peer that were associated with a pending rerouted transaction.

Collection Interval

5 min

Peg Condition

When the DSR receives an Answer message event with a valid transport connection ID for which a pending transaction associated with a rerouted message is found. The connection measurement is associated with the connection from which the Answer message was received.

Measurement Scope

Server Group

Recovery

- No action required.

3.29.3 RxRerouteAnswerRspMp

Measurement ID

10095

Measurement Group

Diameter Rerouting

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of valid Answer messages received from an upstream peer that were associated with a pending rerouted transaction.

Collection Interval

5 min

Peg Condition

When the DSR receives an Answer message event with a valid Transport Connection ID for which a pending transaction associated with a rerouted message is found. The connection measurement is associated with the connection from which the Answer message was received.

Measurement Scope

Server Group

Recovery

- No action required.

3.29.4 TxRerouteAnswerResponse

Measurement ID

10055

Measurement Group

Diameter Rerouting

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of message rerouting attempts triggered by the receipt of an Answer response Result-Code value that is a candidate for message rerouting.

Collection Interval

5 min

Peg Condition

When the DSR receives an Answer response with a Result-Code value that is a candidate for message rerouting. The connection measurement is associated with the upstream connection from which the Answer response was received.

Measurement Scope

Server Group

Recovery

- No action required.

3.29.5 TxRerouteAnswerTimeout

Measurement ID

10052

Measurement Group

Diameter Rerouting

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of message rerouting attempts triggered by a timeout (PENDING-ANSWER-TIMER) on the Answer response.

Collection Interval

5 min

Peg Condition

When timer PENDING-ANSWER-TIMER expires and the DSR attempts to reroute a Request message.

Measurement Scope

Server Group

Recovery

1. If the user-configurable answer response timer is set too low it can cause the timer to expire before a Answer response is received. The user-configurable value is set from the **Diameter**, and then **Configuration**, and then **System Options** page.
2. It is recommended to contact [#unique_131](#) for assistance if needed.

3.29.6 TxRerouteAttempts

Measurement ID

10050

Measurement Group

Diameter Rerouting

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

Total number of message rerouting attempts.

Collection Interval

5 min

Peg Condition

When the DSR attempts to reroute a Request message routed via a Route List for various potential reasons:

- Transport connection fails
- PENDING-ANSWER-TIMER expires
- Answer response Result-Code plus application ID matches user-defined values for message rerouting

This measurement will be pegged when measurement [TxRerouteConnFailure](#), [TxRerouteAnswerTimeout](#), or [TxRerouteAnswerResponse](#) is pegged.

The connection measurement is associated with the upstream connection from which rerouting was triggered.

Measurement Scope

Recovery

1. If the user-configurable answer response timer is set too low it can cause the timer to expire before an Answer response is received. The user-configurable value is set from the **Diameter**, and then **Configuration**, and then **System Options** page.
2. Connection status can be monitored from the **Diameter**, and then **Maintenance**, and then **Connections** page.
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.29.7 TxRerouteConnFailure

Measurement ID

10051

Measurement Group

Diameter Rerouting

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of message rerouting attempts triggered by a connection failure.

Collection Interval

5 min

Peg Condition

For each Request message rerouting attempt invoked by the receipt of a valid Connection Down event notification from the DSR.

Measurement Scope

Server Group

Recovery

1. Connection status can be monitored from the **Diameter**, and then **Maintenance**, and then **Connections** page.

2. It is recommended to contact [#unique_131](#) for assistance if needed.

3.29.8 TxRerouteSuccessSent

Measurement ID

10053

Measurement Group

Diameter Rerouting

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of message rerouting attempts that were successfully rerouted.

Collection Interval

5 min

Peg Condition

When the DSR successfully reroutes a Request message. The connection measurement is associated with the upstream connection from which rerouting was triggered.

Measurement Scope

Server Group

Recovery

- No action required.

3.30 DP Measurements

The Data Processor measurement report contains measurements providing performance information that is specific to data processing in the MP.

3.30.1 DpsQueriesReceived

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Number of Queries received

Collection Interval

5 min

Peg Condition

Measurement Scope

DP Group

Recovery

- No action required.

3.30.2 DpsMsisdnQueriesReceived

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Number of **MSISDN** Queries received

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.3 DpsImsiQueriesReceived

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Number of **IMSI** Queries received

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.4 DpsNaiQueriesReceived

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Number of NAI Queries received

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.5 DpsExtIdQueriesReceived

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Number of External Identifier Queries received

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.6 DpsQueriesFailed

Measurement ID

Measurement Group
DP

Measurement Type
Simple

Description
Number of Queries failed

Collection Interval
5 min

Peg Condition

Measurement Scope
Data Processor

Recovery

- No action required.

3.30.7 DpsMsisdnQueriesFailed

Measurement ID

Measurement Group
DP

Measurement Type
Simple

Description
Number of **MSISDN** Queries with Fail response

Collection Interval
5 min

Peg Condition

Measurement Scope
Data Processor

Recovery

- No action required.

3.30.8 DpsImsiQueriesFailed

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Number of **IMSI** Queries with Fail response

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.9 DpsNaiQueriesFailed

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Number of **NAI** Queries with Fail response

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.10 DpsExtIdQueriesFailed

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Number of External Identifier Queries with Fail response

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.11 DpsSuccessResponses

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Number of Queries with Success response

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.12 DpsMsisdnSuccessResponses

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Number of **MSISDN** Queries with Success response

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.13 DpsImsiSuccessResponses

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Number of **IMSI** Queries with Success response

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.14 DpsNaiSuccessResponses

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Number of **NAI** Queries with Success response

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.15 DpsExtIdSuccessResponses

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Number of External Identifier Queries with Success response

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.16 DpsNotFoundResponses

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Number of Queries with Not Found response

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.17 DpsMsisdnNotFoundResponses

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Number of **MSISDN** Queries with Not Found response

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.18 DpsImsiNotFoundResponses

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Number of **IMSI** Queries with Not Found response

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.19 DpsNaiNotFoundResponses

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Number of **NAI** Queries with Not Found response

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.20 DpsExtIdNotFoundResponses

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Number of External Identifier Queries with NotFound Response

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.21 DpsRespSent

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Total number of responses sent

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.22 DpsIngressQueuePeak

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Peak DPS Ingress Queue utilization during collection period

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.23 DpsIngressQueueAvg

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Average DPS Ingress Queue utilization during collection period

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.24 DpsIngressQueueFull

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Number of DPS Ingress Queue Stack Task messages discarded during the collection period because the number of messages queued exceeded the maximum capacity

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.25 DpsQueryRatePeak

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Peak Ingress Message Rate in messages per second during the collection period

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.26 DpsQueryRateAvg

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Average Ingress Message Rate in messages per second during the collection period

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.27 DpsQueryProcessingTime

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Distribution of times (in microseconds) taken by dpserver to process each query and send its reply

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.28 DpsQueryProcessingTimeAvg

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

The average query processing time (in microseconds) taken by dpserver to process each query and send its reply

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.29 DpsMsisdnBlacklistedResponses

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Number of **MSISDN** Queries with Blacklisted response

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.30 DpsImsiBlacklistedResponses

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Number of **IMSI** Queries with Blacklisted response

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.31 DpsMsisdnPrefixFound

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Number of **MSISDN** Queries that were found by matching a prefix

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.32 DpsImsiPrefixFound

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Number of **IMSI** Queries that were found by matching a prefix

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.33 DpsMsisdnBlacklistLookups

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Number of **MSISDN** Blacklist Lookups performed

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.34 DpsImsiBlacklistLookups

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Number of **IMSI** Blacklist Lookups performed

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.35 DpsMsisdnPrefixLookups

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Number of **MSISDN** Prefix Lookups performed

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.36 DpsImsiPrefixLookups

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Number of **IMSI** Prefix Lookups performed

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.37 DpExtIdDomainLookups

Measurement ID

Measurement Group

DP

Measurement Type

Simple

Description

Number of Domain Identifier Lookups performed

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.30.38 DpsExtIdDomainIdSuccessResponses

Measurement ID

4240

Measurement Group

DP

Measurement Type

Simple

Description

Number of domain identifier part of external identifier queries with success response

Collection Interval

5 min

Peg Condition

Measurement Scope

Data Processor

Recovery

- No action required.

3.31 Diameter EIR Exception measurements

The Diameter Equipment Identity Register (EIR) Exception measurement report contains measurements providing information about transaction processing exceptions that are specific to the EIR Application running on DSR.

3.31.1 DeirCongErr

Measurement ID

22014

Measurement Group

Diameter EIR Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of requests sent with configured error because of congestion in UDR.

Collection Interval

5 min

Recovery

- No action necessary.

3.31.2 DeirDcdDiscard

Measurement ID

Measurement Group

Diameter EIR Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of requests discarded because message decoding failed.

Collection Interval

5 min

Recovery

- No action necessary.

3.31.3 DeirDcdErrResp

Measurement ID

Measurement Group

Diameter EIR Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of requests with error responses because message decoding failed.

Collection Interval

5 min

Recovery

- No action necessary.

3.31.4 DeirDefaultRespDbConnUnavai

Measurement ID

22010

Measurement Group

Diameter EIR Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of responses sent due to UDR connection down.

Collection Interval

5 min

Recovery

- No action necessary.

3.31.5 DeirDiscCATxFail

Measurement ID

22012

Measurement Group

Diameter EIR Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of requests for which DB query sent failed.

Collection Interval

5 min

Recovery

- No action necessary.

3.31.6 DeirDiscComAgentRespDcdFail

Measurement ID

Measurement Group

Diameter EIR Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of responses when ComAgent failed to decode the UDR response.

Collection Interval

5 min

Recovery

- No action necessary.

3.31.7 DeirDiscEncdFail

Measurement ID

Measurement Group

Diameter EIR Exception

Measurement Type

Average

Measurement Dimension

Single

Description

The number of answers DEIR failed to encode.

Collection Interval

5 min

Recovery

- No action necessary.

3.31.8 DeirDisclmeiAbsent

Measurement ID

22013

Measurement Group

Diameter EIR Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of requests discarded as IMEI was absent.

Collection Interval

5 min

Recovery

- No action necessary.

3.31.9 DeirDisclInternalErr

Measurement ID

Measurement Group

Diameter EIR Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of requests discarded because of an internal error.

Collection Interval

5 min

Recovery

- No action necessary.

3.31.10 DeirFullDRLAnswerDiscard

Measurement ID

Measurement Group

Diameter EIR Exception

Measurement Type

Peak

Measurement Dimension

Single

Description

The number of answers discarded because the DRL queue is full.

Collection Interval

5 min

Recovery

- No action necessary.

3.31.11 DeirInvalidCmdCode

Measurement ID

22063

Measurement Group

Diameter EIR Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Requests received with invalid command code.

Collection Interval

5 min

Recovery

- No action necessary.

3.31.12 DeirInvalidImei

Measurement ID

Measurement Group

Diameter EIR Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of requests received with invalid IMEI.

Collection Interval

5 min

Recovery

- No action necessary.

3.31.13 DeirInvalidImsi

Measurement ID

Measurement Group

Diameter EIR Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of requests where IMSI is not decoded successfully.

Collection Interval

5 min

Recovery

- No action necessary.

3.31.14 DeirInvalidSv

Measurement ID

22065

Measurement Group

Diameter EIR Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Requests received with invalid software-version AVP.

Collection Interval

5 min

Recovery

- No action necessary.

3.31.15 DeirSvAbsent

Measurement ID

22064

Measurement Group

Diameter EIR Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Requests received without software-version AVP.

Collection Interval

5 min

Recovery

- No action necessary.

3.31.16 DeirStackEventTimeout

Measurement ID

22014

Measurement Group

Diameter EIR Exception

Measurement Type

Simple

Measurement Dimension

Array

Description

The number of requests where the DB query stack event has timed out.

Collection Interval

5 min

Recovery

- No action necessary.

3.31.17 DeirUdrComAgtErrRecv

Measurement ID

Measurement Group

Diameter EIR Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

ComAgent error received from UDR.

Collection Interval

5 min

Recovery

- No action necessary.

3.31.18 DeirUdrFailedResponse

Measurement ID

22062

Measurement Group

Diameter EIR Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of failed lookup Response received from UDR.

Collection Interval

5 min

Recovery

- No action necessary.

3.31.19 DeirUdrQueryCreatefailedMeasId

Measurement ID

22039

Measurement Group

Diameter EIR Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Unable to create UDR DB query stack event.

Collection Interval

5 min

Recovery

- No action necessary.

3.31.20 DeirUnExpectedUdrResp

Measurement ID

22066

Measurement Group

Diameter EIR Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Response from UDR with unexpected result.

Collection Interval

5 min

Recovery

- No action necessary.

3.31.21 DeirUnklmei

Measurement ID

22011

Measurement Group

Diameter EIR Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of requests with unknown IMEI.

Collection Interval

5 min

Recovery

- No action necessary.

3.31.22 DeirUnSupportedAppId

Measurement ID

Measurement Group

Diameter EIR Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of requests received with an unsupported application ID.

Collection Interval

5 min

Recovery

- No action necessary.

3.31.23 RxDeirSrvNotiUdrUnavail

Measurement ID

22040

Measurement Group

Diameter EIR Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Service Notifications received from COM Agent indicating UDR is unavailable.

Collection Interval

5 min

Recovery

- No action necessary.

3.32 Diameter EIR Performance measurements

The Diameter Equipment Identity Register (EIR) Performance measurement report contains measurements providing performance information that is specific to the EIR Application running on DSR.

3.32.1 DeirDbSuccessResponseAvg

Measurement ID

22061

Measurement Group

Diameter EIR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The average UDR DB success response rate measured during the collection interval.

Collection Interval

5 min

Recovery

- No action necessary.

3.32.2 DeirDbSuccessResponsePeak

Measurement ID

22060

Measurement Group

Diameter EIR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The peak UDR DB success response rate measured during the collection interval.

Collection Interval

5 min

Recovery

- No action necessary.

3.32.3 DeirEgressTotalPduTm

Measurement ID

Measurement Group

Diameter EIR Performance

Measurement Type

N/A

Measurement Dimension

Single

Description

Time (in microseconds) taken by DEIR between the UDR response received and the request delivered to DRL.

Collection Interval

N/A

Recovery

- No action necessary.

3.32.4 DeirIngressTotalPduTm

Measurement ID

Measurement Group

Diameter EIR Performance

Measurement Type

N/A

Measurement Dimension

Single

Description

Time (in microseconds) taken by DEIR between the request received and the UDR query sent to UDR.

Collection Interval

N/A

Recovery

- No action necessary.

3.32.5 DeirSvMatch

Measurement ID

Measurement Group

Diameter EIR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of times the software version configured in the database is same as the software version received in an ECR message.

Collection Interval

5 min

Recovery

- No action necessary.

3.32.6 DeirSvMisMatch

Measurement ID

Measurement Group

Diameter EIR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of times the software version configured in the database is different from the software version received in an ECR message.

Collection Interval

5 min

Recovery

- No action necessary.

3.32.7 DeirTotalPduProcessingTm

Measurement ID

Measurement Group

Diameter EIR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total time to process the request during the collection interval.

Collection Interval

5 min

Recovery

- No action necessary.

3.32.8 DeirUDRQueryResponseTm

Measurement ID

22031

Measurement Group

Diameter EIR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Round Trip Time (in microseconds) between sending UDR Query and receiving UDR Response.

Collection Interval

5 min

Recovery

- No action necessary.

3.32.9 RxUdrResponseTimeAvg

Measurement ID

22034

Measurement Group

Diameter EIR Performance

Measurement Type

Average

Measurement Dimension

Single

Description

Average time (in milliseconds) it takes to receive a UDR response after sending the correlated database query.

Collection Interval

5 min

Recovery

- No action necessary.

3.32.10 RxUdrResponseTimeMax

Measurement ID

22035

Measurement Group

Diameter EIR Performance

Measurement Type

Simple

Measurement Dimension

Array

Description

Maximum time (in milliseconds) it takes to receive a UDR response after sending the correlated database query.

Collection Interval

5 min

Recovery

- No action necessary.

3.32.11 RxUdrResponseTimeMin

Measurement ID

22036

Measurement Group

Diameter EIR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Minimum time (in milliseconds) it takes to receive a UDR response after sending the correlated database query.

Collection Interval

5 min

Recovery

- No action necessary.

3.33 Diameter EIR Usage measurements

The Diameter Equipment Identity Register (EIR) Usage measurement report contains measurements providing usage information that is specific to the EIR Application running on DSR.

3.33.1 DeirBlackImei

Measurement ID

22003

Measurement Group

Diameter EIR Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ECR requests having Black listed IMEI during the collection interval.

Collection Interval

5 min

Recovery

- No action necessary.

3.33.2 DeirBlackImeilmsiMismatch

Measurement ID

22008

Measurement Group

Diameter EIR Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of request messages for which IMEI is black listed and IMSI match also fails when IMSI override is true.

Collection Interval

5 min

Recovery

- No action necessary.

3.33.3 DeirDbQueryRateAvg

Measurement ID

22059

Measurement Group

Diameter EIR Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

The average UDR DB query rate measured during the collection interval.

Collection Interval

5 min

Recovery

- No action necessary.

3.33.4 DeirDbQueryRatePeak

Measurement ID

22058

Measurement Group

Diameter EIR Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

The peak UDR DB query rate measured during the collection interval.

Collection Interval

5 min

Recovery

- No action necessary.

3.33.5 DeirGlobalRespSent

Measurement ID

22009

Measurement Group

Diameter EIR Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of request messages for which global response has been sent.

Collection Interval

5 min

Recovery

- No action necessary.

3.33.6 DeirGrayImei

Measurement ID

22004

Measurement Group

Diameter EIR Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ECR requests having Gray listed IMEI during the collection interval.

Collection Interval

5 min

Recovery

- No action necessary.

3.33.7 DeirImeiOverridden

Measurement ID

22006

Measurement Group

Diameter EIR Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of requests processed by DEIR where IMEI is blacklist but marked whitelist due to IMSI match.

Collection Interval

5 min

Recovery

- No action necessary.

3.33.8 DeirImsiRangeChk

Measurement ID

22007

Measurement Group

Diameter EIR Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of requests for which IMSI range check has been applied successfully.

Collection Interval

5 min

Recovery

- No action necessary.

3.33.9 DeirLoggingQueueAvg

Measurement ID

22053

Measurement Group

Diameter EIR Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

The average logging Queue utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Recovery

- No action necessary.

3.33.10 DeirLoggingQueuePeak

Measurement ID

22052

Measurement Group

Diameter EIR Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

The peak DSR EIR Application's logging Queue utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Recovery

- No action necessary.

3.33.11 DeirMsgSuccess

Measurement ID

22002

Measurement Group

Diameter EIR Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Diameter answer messages sent with result code 2001 during the collection interval.

Collection Interval

5 min

Recovery

- No action necessary.

3.33.12 DeirRequestMsgQueueAvg

Measurement ID

22045

Measurement Group

Diameter EIR Usage

Measurement Type

Simple

Measurement Dimension

N/A

Description

The average Request Message Queue utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Recovery

- No action necessary.

3.33.13 DeirRequestMsgQueuePeak

Measurement ID

22044

Measurement Group

Diameter EIR Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

The peak DSR EIR Application's Request Message Queue utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Recovery

- No action necessary.

3.33.14 DeirStatusLogged

Measurement ID

22041

Measurement Group

Diameter EIR Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of equipment status logged in EIR log.

Collection Interval

5 min

Recovery

- No action necessary.

3.33.15 DeirStatusLoggedAvg

Measurement ID

22043

Measurement Group

Diameter EIR Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

The average number of equipment status logged in EIR log during the collection interval.

Collection Interval

5 min

Recovery

- No action necessary.

3.33.16 DeirStatusLoggedPeak

Measurement ID

22042

Measurement Group

Diameter EIR Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

The peak number of equipment status logged in EIR log during the collection interval.

Collection Interval

5 min

Recovery

- No action necessary.

3.33.17 DeirUdrQuerySent

Measurement ID

22037

Measurement Group

Diameter EIR Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Requests received and discarded as IMEI was absent.

Collection Interval

5 min

Recovery

- No action necessary.

3.33.18 DeirUdrResponseMsgQueueAvg

Measurement ID

22047

Measurement Group

Diameter EIR Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

The average UDR Response Message Queue utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Recovery

- No action necessary.

3.33.19 DeirUdrResponseMsgQueuePeak

Measurement ID

22046

Measurement Group

Diameter EIR Usage

Measurement Type

Simple

Measurement Dimension

N/A

Description

The peak DSR EIR Application's UDR Response Message Queue utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Recovery

- No action necessary.

3.33.20 DeirUdrSuccessResponse

Measurement ID

22038

Measurement Group

Diameter EIR Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of successful lookup Response received from UDR.

Collection Interval

5 min

Recovery

- No action necessary.

3.33.21 DeirWhitelmei

Measurement ID

22005

Measurement Group

Diameter EIR Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ECR requests having White listed IMEI during the collection interval.

Collection Interval

5 min

Recovery

- No action necessary.

3.33.22 RxDeirMsg

Measurement ID

22000

Measurement Group

Diameter EIR Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of requests processed by DEIR during the collection interval.

Collection Interval

5 min

Recovery

- No action necessary.

3.33.23 RxDeirMsgRateAvg

Measurement ID

22055

Measurement Group

Diameter EIR Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

The average DSR EIR Application's Message Processing rate measured during the collection interval.

Collection Interval

5 min

Recovery

- No action necessary.

3.33.24 RxDeirMsgRatePeak

Measurement ID

22054

Measurement Group

Diameter EIR Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

The peak DSR EIR Application's Message Processing rate measured during the collection interval.

Collection Interval

5 min

Recovery

- No action necessary.

3.33.25 RxDeirNgnPs

Measurement ID

22032

Measurement Group

Diameter EIR Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of NGN-PS Diameter messages received by Diameter Equipment Identity Register.

Collection Interval

5 min

Recovery

- No action necessary.

3.33.26 RxDeirNgnPsDrop

Measurement ID

22033

Measurement Group

Diameter EIR Usage

Measurement Type

Peak

Measurement Dimension

Single

Description

Number of NGN-PS Diameter messages dropped by Diameter Equipment Identity Register.

Collection Interval

5 min

Recovery

- No action necessary.

3.33.27 TxDeirMsg

Measurement ID

22001

Measurement Group

Diameter EIR Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of response sent by DEIR during the collection interval.

Collection Interval

5 min

Recovery

- No action necessary.

3.33.28 TxDeirMsgRateAvg

Measurement ID

22057

Measurement Group

Diameter EIR Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

The average DSR EIR Application's Message transmission rate measured during the collection interval.

Collection Interval

5 min

Recovery

- No action necessary.

3.33.29 TxDeirMsgRatePeak

Measurement ID

22056

Measurement Group

Diameter EIR Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

The peak DSR EIR Application's Message transmission rate measured during the collection interval.

Collection Interval

5 min

Recovery

- No action necessary.

3.34 vSTP EIR Exception measurements

The Equipment Identity Register (EIR) Exception measurement report contains measurements providing information about transaction processing exceptions that are specific to the EIR Application running on DSR.

3.34.1 VstpEirImsiMissing

Measurement ID

21615

Measurement Group

EIR Exception Measurement

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of messages formatted badly.

Collection Interval

5 min

Recovery

- No action necessary.

3.34.2 VstpEirBlackImsiFail

Measurement ID

21609

Measurement Group
EIR Exception Measurement

Measurement Type
Simple

Measurement Dimension
Single

Description
The number of IMEIs blacklisted where the IMSI match has failed.

Collection Interval
5 min

Recovery

- No action necessary.

3.34.3 VstpEirDbQueryFailUDRConnDown

Measurement ID
21646

Measurement Group
EIR Exception

Measurement Type
Simple

Measurement Dimension
Single

Description
The number of EIR database queries not initiated because UDR connectivity is down.

Collection Interval
5 min

Recovery

- No action necessary.

3.34.4 VstpEirDiscCADcdFail

Measurement ID
21623

Measurement Group
EIR Exception

Measurement Type
Simple

Measurement Dimension

Single

Description

The number of messages discarded by LSS because decoding failed in the ComAgent response message.

Collection Interval

5 min

Recovery

- No action necessary.

3.34.5 VstpEirDiscCATxFail

Measurement ID

Measurement Group

EIR Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of messages discarded by LSS because the send failed to the ComAgent layer.

Collection Interval

5 min

Recovery

- No action necessary.

3.34.6 VstpEirDiscIMEIMis

Measurement ID

Measurement Group

EIR Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of messages discarded because of missing IMEI.

Collection Interval

5 min

Recovery

- No action necessary.

3.34.7 VstpEirDiscIntErr

Measurement ID

21625

Measurement Group

EIR Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of messages discarded because of internal processing error.

Collection Interval

5 min

Recovery

- No action necessary.

3.34.8 VstpEirDiscLssFul

Measurement ID

Measurement Group

EIR Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of messages discarded because the LSS stack queue was full.

Collection Interval

5 min

Recovery

- No action necessary.

3.34.9 VstpEirDiscPduFul

Measurement ID

21624

Measurement Group

EIR Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of messages discarded when the PDU pool is exhausted.

Collection Interval

5 min

Recovery

- No action necessary.

3.34.10 VstpEirDiscSccpTxFail

Measurement ID

Measurement Group

EIR Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of messages discarded by LSS because the send failed to the SCCP layer.

Collection Interval

5 min

Recovery

- No action necessary.

3.34.11 VstpEirDiscUnkSsn

Measurement ID

Measurement Group

EIR Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of messages discarded because of an unknown SSN.

Collection Interval

5 min

Recovery

- No action necessary.

3.34.12 VstpEirQueTimeOut

Measurement ID

Measurement Group

EIR Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of messages where the ComAgent query to UDR timed out.

Collection Interval

5 min

Recovery

- No action necessary.

3.35 vSTP EIR Performance measurements

The Equipment Identity Register (EIR) Performance measurement report contains measurements providing performance information that is specific to the EIR Application running on DSR.

3.35.1 VstpEirBlackAllwlmei

Measurement ID

21608

Measurement Group

VSTPEIR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of IMEIs blacklisted but allowed because of an IMSI override.

Collection Interval

5 min

Recovery

- No action necessary.

3.35.2 VstpEirBlackImei

Measurement ID

21603

Measurement Group

EIR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of IMEIs blacklisted.

Collection Interval

5 min

Recovery

- No action necessary.

3.35.3 VstpCARx

Measurement ID

21627

Measurement Group

EIR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of DB response received by vSTP.

Collection Interval

5 min

Recovery

- No action necessary.

3.35.4 VstpEirCAQueProcesTime

Measurement ID

21628

Measurement Group

EIR Performance

Measurement Type

Simple

Measurement Dimension

Array

Description

Number of DB request sent by vSTP.

Collection Interval

5 min

Recovery

- No action necessary.

3.35.5 VstpEirRxRatePeak

Measurement ID

21629

Measurement Group

EIR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The peak Rx messages by Eir Application.

Collection Interval

5 min

Recovery

- No action necessary.

3.35.6 VstpEirGrayImei

Measurement ID

21604

Measurement Group

EIR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of IMEIs grayisted.

Collection Interval

5 min

Recovery

- No action necessary.

3.35.7 VstpEirImeiNotFound

Measurement ID

21607

Measurement Group

EIR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of IMEIs not found in the database.

Collection Interval

5 min

Recovery

- No action necessary.

3.35.8 VstpEirImsiRangeSucc

Measurement ID

21610

Measurement Group

EIR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of responses sent using the IMSI range match. The response can be white, black, gray, or unknown.

Collection Interval

5 min

Recovery

- No action necessary.

3.35.9 VstpEirMsgRecv

Measurement ID

21601

Measurement Group

EIR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of messages successfully received by EIR.

Collection Interval

5 min

Recovery

- No action necessary.

3.35.10 VstpEirMsgTrans

Measurement ID

21602

Measurement Group

EIR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of messages successfully transmitted by EIR to the SCCP layer.

Collection Interval

5 min

Recovery

- No action necessary.

3.35.11 VstpEirProcessAvg

Measurement ID

Measurement Group

EIR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The average time for processing an EIR message received from the SCCP layer and sending back a response.

Collection Interval

5 min

Recovery

- No action necessary.

3.35.12 VstpEirProcessMax

Measurement ID

Measurement Group

EIR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Maximum time for processing an EIR message received from the SCCP layer and sending back a response.

Collection Interval

5 min

Recovery

- No action necessary.

3.35.13 VstpEirProcesTime

Measurement ID**Measurement Group**

EIR Performance

Measurement Type

Simple

Measurement Dimension

Array

Description

Processing time required for an EIR message received from the SCCP layer and sending back a response. This is grouped at 10 ms intervals.

Collection Interval

5 min

Recovery

- No action necessary.

3.35.14 VstpEirUnklmei

Measurement ID

21606

Measurement Group

EIR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of IMEIs that are unknown.

Collection Interval

5 min

Recovery

- No action necessary.

3.35.15 VstpEirWhitelmei

Measurement ID

21605

Measurement Group

EIR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of IMEIs whitelisted.

Collection Interval

5 min

Recovery

- No action necessary.

3.36 Egress Throttle Group Performance measurements

The Diameter Egress Throttle Group Performance measurement report contains measurements providing information related to a specific **ETG**.

3.36.1 TxEtgMsgsLocal

Measurement ID

14000

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by ETG ID)

Description

Number of messages (Request or Answer) send on a Connection or a Peer which is part of **ETG** .

Collection Interval

5 min

Peg Condition

When **DRL** successfully queues a message (Request (including Reroutes and MessageCopy) or Answer) to DCL for transmission to Connection or a Peer which is part of **ETG**. This peg is incremented even if ETG Rate Limiting function is Disabled. This peg is incremented only for "Routable" messages i.e messages terminated in **DCL** layer (eg CEX, DWX) are not counted.

Measurement Scope

Site

Recovery

- No action required

3.36.2 TxEtgMsgRatePeak

Measurement ID

14001

Measurement Group

Egress Throttle Group Performance

Measurement Type

Max

Measurement Dimension

Arrayed (by ETG ID)

Description

Peak Aggregated **ETG** Message Rate calculation made during the collection interval

Collection Interval

5 min

Peg Condition

An **ETG** Message Rate calculation A_t is periodically calculated. If the new A_t exceeds any previous A_{t-k} value for the collection interval, then this measurement will be updated with the new A_t value.

Measurement Scope

Site

Recovery

- No action required

3.36.3 TxEtgMsgRateAvg

Measurement ID

14002

Measurement Group

Egress Throttle Group Performance

Measurement Type

Avg

Measurement Dimension

Arrayed (by ETG ID)

DescriptionAverage **ETG** Message Rate calculation made during the collection interval**Collection Interval**

5 min

Peg ConditionEach time an ETG Message Rate calculation A_t is calculated.**Measurement Scope**

Site

Recovery

- No action required

3.36.4 EtgSelected

Measurement ID

14500

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected Destination-Host Implicit Routing) which is associated with an ETG. Additionally, either an ETG's Rate Limiting Admin State = Enabled or an ETG's Pending Transaction Limiting Admin State = Enabled

Measurement Scope

Site

Recovery

- No action necessary.

3.36.5 EtgTmStaticThrottling

Measurement ID

14501

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Duration of time (in seconds) that ETG throttling was being applied

Collection Interval

5 min

Peg Condition

The time duration interval starts when any of these events occur:

- The ETG's Operation Reason is changed to Static Rate Limit Exceeded or Maximum Pending Trans Exceeded
- A new measurement collection interval begins and the ETG's Operation Reason is Static Rate Limit Exceeded

The time duration interval stops when any of these events occur:

- The ETG's Operation Reason is changed from Status Rate Limit Exceeded or Maximum Pending Trans Exceeded to any other value
- The current measurement collection interval ends (such as end of the current 5 minute collection interval)
- When a time duration interval completes, the time measured is added to the measurement value

Measurement Scope

Site

Recovery

- No action necessary.

3.36.6 EvEtgRateCongestionOnset

Measurement ID

14003

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by ETG ID)

Description

Number of times an ETG-RCL was advanced.

Collection Interval

5 min

Peg Condition

Each time the EMR Congestion Level is advanced

Measurement Scope

Site

Recovery

1. Verify the *Maximum EMR* for the ETG is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the *Rate Convergence Time* parameter for the ETG if necessary. Increasing the *Rate Convergence Time* value allows the user to control the sensitivity of the request traffic bursts to ETG rate.
4. Verify the *EMR Abatement Timeout* for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this ETG) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [My Oracle Support](#).

3.36.7 EvEtgRateDiscardPri0G

Measurement ID

14004

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by ETG ID)

Description

Number of Request Messages with priority 0 and color green discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time that Routing Layer discarded a Request message with priority 0 and color green due to last connection evaluated being ETG Rate Limited

Measurement Scope

Site

Recovery

1. Verify that the *Maximum EMR* for the ETG is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the *Rate Convergence Time* parameter for the ETG if necessary. Increasing the *Rate Convergence Time* value allows the user to control the sensitivity of the request traffic bursts to ETG rate.
4. Verify the *EMR Abatement Timeout* for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this ETG) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [My Oracle Support](#).

3.36.8 EvEtgRateDiscardPri0Y

Measurement ID

14579

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 0 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time a request message with priority 0 and color yellow is discarded due to last connection evaluated being ETG Rate Limited

Measurement Scope

Site

Recovery

1. Verify the *Maximum EMR* for the ETG is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the *Rate Convergence Time* parameter for the ETG if necessary. Increasing the *Rate Convergence Time* value allows the user to control the sensitivity of the request traffic bursts to ETG rate.
4. Verify the *EMR Abatement Timeout* for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this ETG) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [My Oracle Support](#).

3.36.9 EvEtgRateDiscardPri1G

Measurement ID

14005

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by ETG ID)

Description

Number of Request Messages with priority 1 and color green discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time that Routing Layer discarded a Request message with priority 1 and color green due to last connection evaluated being ETG Rate Limited

Measurement Scope

Site

Recovery

1. Verify that the *Maximum EMR* for the ETG is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the *Rate Convergence Time* parameter for the ETG if necessary. Increasing the *Rate Convergence Time* value allows the user to control the sensitivity of the request traffic bursts to ETG rate.
4. Verify the *EMR Abatement Timeout* for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this ETG) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [My Oracle Support](#).

3.36.10 EvEtgRateDiscardPri1Y

Measurement ID

14580

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 1 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time a request message with priority 1 and color yellow is discarded due to last connection evaluated being ETG Rate Limited

Measurement Scope

Site

Recovery

1. Verify the *Maximum EMR* for the ETG is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the *Rate Convergence Time* parameter for the ETG if necessary. Increasing the *Rate Convergence Time* value allows the user to control the sensitivity of the request traffic bursts to ETG rate.
4. Verify the *EMR Abatement Timeout* for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this ETG) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [My Oracle Support](#).

3.36.11 EvEtgRateDiscardPri2G

Measurement ID

14006

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by ETG ID)

Description

Number of Request Messages with priority 2 and color green discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time that Routing Layer discarded a Request message with priority 2 and color green due to last connection evaluated being ETG Rate Limited.

Measurement Scope

Site

Recovery

1. Verify the *Maximum EMR* for the ETG is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the *Rate Convergence Time* parameter for the ETG if necessary. Increasing the *Rate Convergence Time* value allows the user to control the sensitivity of the request traffic bursts to ETG rate.
4. Verify the *EMR Abatement Timeout* for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this ETG) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [My Oracle Support](#).

3.36.12 EvEtgRateDiscardPri2Y

Measurement ID

14581

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 2 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time a request message with priority 2 and color yellow is discarded due to last connection evaluated being ETG Rate Limited

Measurement Scope

Site

Recovery

1. Verify the *Maximum EMR* for the ETG is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.

3. Adjust the *Rate Convergence Time* parameter for the ETG if necessary. Increasing the *Rate Convergence Time* value allows the user to control the sensitivity of the request traffic bursts to ETG rate.
4. Verify the *EMR Abatement Timeout* for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this ETG) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [My Oracle Support](#).

3.36.13 EvEtgRateDiscardPri3G

Measurement ID

14566

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 3 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time a request message with priority 3 and color green is discarded due to last connection evaluated being ETG Rate Limited

Measurement Scope

Site

Recovery

1. Verify the *Maximum EMR* for the ETG is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the *Rate Convergence Time* parameter for the ETG if necessary. Increasing the *Rate Convergence Time* value allows the user to control the sensitivity of the request traffic bursts to ETG rate.

4. Verify the *EMR Abatement Timeout* for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this ETG) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [My Oracle Support](#).

3.36.14 EvEtgRateDiscardPri3Y

Measurement ID

14582

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 3 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time a request message with priority 3 and color yellow is discarded due to last connection evaluated being ETG Rate Limited

Measurement Scope

Site

Recovery

1. Verify the *Maximum EMR* for the ETG is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the *Rate Convergence Time* parameter for the ETG if necessary. Increasing the *Rate Convergence Time* value allows the user to control the sensitivity of the request traffic bursts to ETG rate.
4. Verify the *EMR Abatement Timeout* for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this ETG) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.

6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [My Oracle Support](#).

3.36.15 EvEtgRateDiscardPri4G

Measurement ID

14567

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 4 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time a request message with priority 4 and color green is discarded due to last connection evaluated being ETG Rate Limited

Measurement Scope

Site

Recovery

1. Verify the *Maximum EMR* for the ETG is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the *Rate Convergence Time* parameter for the ETG if necessary. Increasing the *Rate Convergence Time* value allows the user to control the sensitivity of the request traffic bursts to ETG rate.
4. Verify the *EMR Abatement Timeout* for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this ETG) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [My Oracle Support](#).

3.36.16 EvEtgRateDiscardPri4Y

Measurement ID

14583

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 4 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time a request message with priority 4 and color yellow is discarded due to last connection evaluated being ETG Rate Limited

Measurement Scope

Site

Recovery

1. Verify the *Maximum EMR* for the ETG is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the *Rate Convergence Time* parameter for the ETG if necessary. Increasing the *Rate Convergence Time* value allows the user to control the sensitivity of the request traffic bursts to ETG rate.
4. Verify the *EMR Abatement Timeout* for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this ETG) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [My Oracle Support](#).

3.36.17 EvEtgRateDiscardPri5G

Measurement ID

14568

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 5 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time a request message with priority 5 and color green is discarded due to last connection evaluated being ETG Rate Limited

Measurement Scope

Site

Recovery

1. Verify the *Maximum EMR* for the ETG is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the *Rate Convergence Time* parameter for the ETG if necessary. Increasing the *Rate Convergence Time* value allows the user to control the sensitivity of the request traffic bursts to ETG rate.
4. Verify the *EMR Abatement Timeout* for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this ETG) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [My Oracle Support](#).

3.36.18 EvEtgRateDiscardPri5Y

Measurement ID

14584

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 5 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time a request message with priority 5 and color yellow is discarded due to last connection evaluated being ETG Rate Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETG** is set sufficiently high.
2. Adjust the **EMR** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETG if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to ETG rate.
4. Verify the EMR Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.19 EvEtgRateDiscardPri6G

Measurement ID

14569

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 6 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time a request message with priority 6 and color green is discarded due to last connection evaluated being ETG Rate Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETG** is set sufficiently high.
2. Adjust the **EMR** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETG if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to ETG rate.
4. Verify the EMR Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.20 EvEtgRateDiscardPri6Y

Measurement ID

14585

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 6 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time a request message with priority 6 and color yellow is discarded due to last connection evaluated being ETG Rate Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETG** is set sufficiently high.
2. Adjust the **EMR** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETG if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to ETG rate.
4. Verify the EMR Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.21 EvEtgRateDiscardPri7G

Measurement ID

14570

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 7 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time a request message with priority 7 and color green is discarded due to last connection evaluated being ETG Rate Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETG** is set sufficiently high.
2. Adjust the **EMR** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETG if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to ETG rate.
4. Verify the EMR Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.22 EvEtgRateDiscardPri7Y

Measurement ID

14586

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 7 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time a request message with priority 7 and color yellow is discarded due to last connection evaluated being ETG Rate Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETG** is set sufficiently high.
2. Adjust the **EMR** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETG if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to ETG rate.
4. Verify the EMR Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.23 EvEtgRateDiscardPri8G

Measurement ID

14571

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 8 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time a request message with priority 8 and color green is discarded due to last connection evaluated being ETG Rate Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETG** is set sufficiently high.
2. Adjust the **EMR** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETG if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to ETG rate.
4. Verify the EMR Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.24 EvEtgRateDiscardPri8Y

Measurement ID

14587

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 8 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time a request message with priority 8 and color yellow is discarded due to last connection evaluated being ETG Rate Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETG** is set sufficiently high.
2. Adjust the **EMR** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETG if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to ETG rate.
4. Verify the EMR Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.25 EvEtgRateDiscardPri9G

Measurement ID

14572

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 9 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time a request message with priority 9 and color green is discarded due to last connection evaluated being ETG Rate Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETG** is set sufficiently high.
2. Adjust the **EMR** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.

3. Adjust the Rate Convergence Time parameter for the ETG if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to ETG rate.
4. Verify the EMR Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.26 EvEtgRateDiscardPri9Y

Measurement ID

14588

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 9 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time a request message with priority 9 and color yellow is discarded due to last connection evaluated being ETG Rate Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETG** is set sufficiently high.
2. Adjust the **EMR** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETG if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to ETG rate.

4. Verify the EMR Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.27 EvEtgRateDiscardPri10G

Measurement ID

14573

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 10 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time a request message with priority 10 and color green is discarded due to last connection evaluated being ETG Rate Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETG** is set sufficiently high.
2. Adjust the **EMR** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETG if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to ETG rate.
4. Verify the EMR Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.

6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.28 EvEtgRateDiscardPri10Y

Measurement ID

14589

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 10 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time a request message with priority 10 and color yellow is discarded due to last connection evaluated being ETG Rate Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETG** is set sufficiently high.
2. Adjust the **EMR** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETG if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to ETG rate.
4. Verify the EMR Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.29 EvEtgRateDiscardPri11G

Measurement ID

14574

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 11 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time a request message with priority 11 and color green is discarded due to last connection evaluated being ETG Rate Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETG** is set sufficiently high.
2. Adjust the **EMR** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETG if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to ETG rate.
4. Verify the EMR Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.30 EvEtgRateDiscardPri11Y

Measurement ID

14590

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 11 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time a request message with priority 11 and color yellow is discarded due to last connection evaluated being ETG Rate Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETG** is set sufficiently high.
2. Adjust the **EMR** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETG if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to ETG rate.
4. Verify the EMR Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.31 EvEtgRateDiscardPri12G

Measurement ID

14575

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 12 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time a request message with priority 12 and color green is discarded due to last connection evaluated being ETG Rate Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETG** is set sufficiently high.
2. Adjust the **EMR** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETG if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to ETG rate.
4. Verify the EMR Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.32 EvEtgRateDiscardPri12Y

Measurement ID

14591

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 12 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time a request message with priority 12 and color yellow is discarded due to last connection evaluated being ETG Rate Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETG** is set sufficiently high.
2. Adjust the **EMR** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETG if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to ETG rate.
4. Verify the EMR Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.33 EvEtgRateDiscardPri13G

Measurement ID

14576

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 13 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time a request message with priority 13 and color green is discarded due to last connection evaluated being ETG Rate Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETG** is set sufficiently high.
2. Adjust the **EMR** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETG if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to ETG rate.
4. Verify the EMR Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.34 EvEtgRateDiscardPri13Y

Measurement ID

14592

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 13 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time a request message with priority 13 and color yellow is discarded due to last connection evaluated being ETG Rate Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETG** is set sufficiently high.
2. Adjust the **EMR** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETG if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to ETG rate.
4. Verify the EMR Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.35 EvEtgRateDiscardPri14G

Measurement ID

14577

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 14 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time a request message with priority 14 and color green is discarded due to last connection evaluated being ETG Rate Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETG** is set sufficiently high.
2. Adjust the **EMR** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETG if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to ETG rate.
4. Verify the EMR Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.36 EvEtgRateDiscardPri14Y

Measurement ID

14593

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 14 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time a request message with priority 14 and color yellow is discarded due to last connection evaluated being ETG Rate Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETG** is set sufficiently high.
2. Adjust the **EMR** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETG if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to ETG rate.
4. Verify the EMR Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.37 EvEtgRateDiscardPri15G

Measurement ID

14578

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 15 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time a request message with priority 15 and color green is discarded due to last connection evaluated being ETG Rate Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETG** is set sufficiently high.
2. Adjust the **EMR** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETG if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to ETG rate.
4. Verify the EMR Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.38 EvEtgRateDiscardPri15Y

Measurement ID

14594

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 15 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETG Rate Limited.

Collection Interval

5 min

Peg Condition

Each time a request message with priority 15 and color yellow is discarded due to last connection evaluated being ETG Rate Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETG** is set sufficiently high.
2. Adjust the **EMR** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.

3. Adjust the Rate Convergence Time parameter for the ETG if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to ETG rate.
4. Verify the EMR Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.39 EvEtgPendingTransPeak

Measurement ID

14007

Measurement Group

Egress Throttle Group Performance

Measurement Type

Max

Measurement Dimension

Arrayed (by ETG ID)

Description

Peak pending transactions to members of this **ETG** during the collection interval.

Collection Interval

5 min

Peg Condition

Each time a new P_t value exceeds any previous P_{t-k} value.

Measurement Scope

Site

Recovery

- No action required

3.36.40 EvEtgPendingTransAvg

Measurement ID

14008

Measurement Group

Egress Throttle Group Performance

Measurement Type

Avg

Measurement Dimension

Arrayed (by ETG ID)

Description

Average pending transactions to members of this **ETG** during the collection interval.

Collection Interval

5 min

Peg Condition

Each time an ETG Pending Request P_t value is calculated.

Measurement Scope

Site

Recovery

- No action required

3.36.41 EvEtgPendingTransCongestionOnset

Measurement ID

14009

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by ETG ID)

Description

Number of times an **ETG-PCL** was advanced.

Collection Interval

5 min

Peg Condition

Each time the ETG Window Congestion Level is advanced

Measurement Scope

Site

Recovery

1. Verify that the "Maximum EPT" for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the "EPT Abatement Timeout" for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.

4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.42 EvEtgPendingTransDiscardPri0G

Measurement ID

14010

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by ETG ID)

Description

Number of Request Messages with priority 0 and color green discarded (with or without response) due to last connection evaluated for routing being **ETG** Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time that Routing Layer discarded a Request message with priority 0 and color green due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the "Maximum EPT" for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the "EPT Abatement Timeout" for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.

5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.43 EvEtgPendingTransDiscardPri0Y

Measurement ID

14608

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 0 and color yellow discarded (with or without response) due to last connection evaluated for routing being ETG Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time a request message with priority 0 and color yellow is discarded due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.

6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.44 EvEtgPendingTransDiscardPri1G

Measurement ID

14011

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by ETG ID)

Description

Number of Request Messages with priority 1 and color green discarded (with or without response) due to last connection evaluated for routing being **ETG** Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time that Routing Layer discarded a Request message with priority 1 and color green due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the "Maximum EPT" for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the "EPT Abatement Timeout" for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.45 EvEtgPendingTransDiscardPri1Y

Measurement ID

14609

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 1 and color yellow discarded (with or without response) due to last connection evaluated for routing being ETG Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time a request message with priority 1 and color yellow is discarded due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.46 EvEtgPendingTransDiscardPri2G

Measurement ID

14012

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by ETG ID)

Description

Number of Request Messages with priority 2 and color green discarded (with or without response) due to last connection evaluated for routing being **ETG** Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time that Routing Layer discarded a Request message with priority 2 and color green due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the "Maximum EPT" for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the "EPT Abatement Timeout" for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.47 EvEtgPendingTransDiscardPri2Y

Measurement ID

14610

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 2 and color yellow discarded (with or without response) due to last connection evaluated for routing being ETG Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time a request message with priority 2 and color yellow is discarded due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.48 EvEtgPendingTransDiscardPri3G

Measurement ID

14595

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 3 and color green discarded (with or without response) due to last connection evaluated for routing being ETG Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time a request message with priority 3 and color green is discarded due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.49 EvEtgPendingTransDiscardPri3Y

Measurement ID

14611

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 3 and color yellow discarded (with or without response) due to last connection evaluated for routing being ETG Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time a request message with priority 3 and color yellow is discarded due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.50 EvEtgPendingTransDiscardPri4G

Measurement ID

14596

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 4 and color green discarded (with or without response) due to last connection evaluated for routing being ETG Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time a request message with priority 4 and color green is discarded due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.51 EvEtgPendingTransDiscardPri4Y

Measurement ID

14612

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 4 and color yellow discarded (with or without response) due to last connection evaluated for routing being ETG Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time a request message with priority 4 and color yellow is discarded due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.52 EvEtgPendingTransDiscardPri5G

Measurement ID

14597

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 5 and color green discarded (with or without response) due to last connection evaluated for routing being ETG Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time a request message with priority 5 and color green is discarded due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.53 EvEtgPendingTransDiscardPri5Y

Measurement ID

14613

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 5 and color yellow discarded (with or without response) due to last connection evaluated for routing being ETG Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time a request message with priority 5 and color yellow is discarded due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.54 EvEtgPendingTransDiscardPri6G

Measurement ID

14598

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 6 and color green discarded (with or without response) due to last connection evaluated for routing being ETG Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time a request message with priority 6 and color green is discarded due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.55 EvEtgPendingTransDiscardPri6Y

Measurement ID

14614

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 6 and color yellow discarded (with or without response) due to last connection evaluated for routing being ETG Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time a request message with priority 6 and color yellow is discarded due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.56 EvEtgPendingTransDiscardPri7G

Measurement ID

14599

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 7 and color green discarded (with or without response) due to last connection evaluated for routing being ETG Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time a request message with priority 7 and color green is discarded due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.57 EvEtgPendingTransDiscardPri7Y

Measurement ID

14615

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 7 and color yellow discarded (with or without response) due to last connection evaluated for routing being ETG Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time a request message with priority 7 and color yellow is discarded due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.58 EvEtgPendingTransDiscardPri8G

Measurement ID

14600

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 8 and color green discarded (with or without response) due to last connection evaluated for routing being ETG Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time a request message with priority 8 and color green is discarded due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.59 EvEtgPendingTransDiscardPri8Y

Measurement ID

14616

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 8 and color yellow discarded (with or without response) due to last connection evaluated for routing being ETG Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time a request message with priority 8 and color yellow is discarded due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.60 EvEtgPendingTransDiscardPri9G

Measurement ID

14601

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 9 and color green discarded (with or without response) due to last connection evaluated for routing being ETG Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time a request message with priority 9 and color green is discarded due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.61 EvEtgPendingTransDiscardPri9Y

Measurement ID

14617

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 9 and color yellow discarded (with or without response) due to last connection evaluated for routing being ETG Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time a request message with priority 9 and color yellow is discarded due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.62 EvEtgPendingTransDiscardPri10G

Measurement ID

14602

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 10 and color green discarded (with or without response) due to last connection evaluated for routing being ETG Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time a request message with priority 10 and color green is discarded due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.63 EvEtgPendingTransDiscardPri10Y

Measurement ID

14618

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 10 and color yellow discarded (with or without response) due to last connection evaluated for routing being ETG Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time a request message with priority 10 and color yellow is discarded due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.64 EvEtgPendingTransDiscardPri11G

Measurement ID

14603

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 11 and color green discarded (with or without response) due to last connection evaluated for routing being ETG Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time a request message with priority 11 and color green is discarded due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.65 EvEtgPendingTransDiscardPri11Y

Measurement ID

14619

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 11 and color yellow discarded (with or without response) due to last connection evaluated for routing being ETG Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time a request message with priority 11 and color yellow is discarded due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.66 EvEtgPendingTransDiscardPri12G

Measurement ID

14604

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 12 and color green discarded (with or without response) due to last connection evaluated for routing being ETG Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time a request message with priority 12 and color green is discarded due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.67 EvEtgPendingTransDiscardPri12Y

Measurement ID

14620

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 12 and color yellow discarded (with or without response) due to last connection evaluated for routing being ETG Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time a request message with priority 12 and color yellow is discarded due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.68 EvEtgPendingTransDiscardPri13G

Measurement ID

14605

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 13 and color green discarded (with or without response) due to last connection evaluated for routing being ETG Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time a request message with priority 13 and color green is discarded due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.69 EvEtgPendingTransDiscardPri13Y

Measurement ID

14621

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 13 and color yellow discarded (with or without response) due to last connection evaluated for routing being ETG Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time a request message with priority 13 and color yellow is discarded due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.70 EvEtgPendingTransDiscardPri14G

Measurement ID

14606

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 14 and color green discarded (with or without response) due to last connection evaluated for routing being ETG Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time a request message with priority 14 and color green is discarded due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.71 EvEtgPendingTransDiscardPri14Y

Measurement ID

14622

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 14 and color yellow discarded (with or without response) due to last connection evaluated for routing being ETG Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time a request message with priority 14 and color yellow is discarded due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.72 EvEtgPendingTransDiscardPri15G

Measurement ID

14607

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 15 and color green discarded (with or without response) due to last connection evaluated for routing being ETG Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time a request message with priority 15 and color green is discarded due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.73 EvEtgPendingTransDiscardPri15Y

Measurement ID

14623

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with priority 15 and color yellow discarded (with or without response) due to last connection evaluated for routing being ETG Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time a request message with priority 15 and color yellow is discarded due to last connection evaluated being ETG Pending Transaction Limited

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETG** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETG is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETG**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETG than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETG is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETG.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.36.74 EvEtgPendingTransPeak

Measurement ID

14007

Measurement Group

Egress Throttle Group Performance

Measurement Type

Max

Measurement Dimension

Arrayed (by ETG ID)

DescriptionPeak pending transactions to members of this **ETG** during the collection interval.**Collection Interval**

5 min

Peg ConditionEach time a new P_t value exceeds any previous P_{t-k} value.**Measurement Scope**

Site

Recovery

- No action required

3.36.75 EtgHandledPOG

Measurement ID

14502

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 0 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 0
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.76 EtgHandledPOY

Measurement ID

14518

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 0 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 0
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.77 EtgHandledP1G

Measurement ID

14503

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 1 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 1
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.78 EtgHandledP1Y

Measurement ID

14519

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 1 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 1
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.79 EtgHandledP2G

Measurement ID

14504

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 2 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 2
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.80 EtgHandledP2Y

Measurement ID

14520

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 2 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 2
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.81 EtgHandledP3G

Measurement ID

14505

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 3 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 3
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.82 EtgHandledP3Y

Measurement ID

14521

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 3 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 3
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.83 EtgHandledP4G

Measurement ID

14506

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 4 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 4
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.84 EtgHandledP4Y

Measurement ID

14522

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 4 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 4
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.85 EtgHandledP5G

Measurement ID

14507

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 5 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 5
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.86 EtgHandledP5Y

Measurement ID

14523

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 5 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 5

- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.87 EtgHandledP6G

Measurement ID

14508

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 6 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 6
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.88 EtgHandledP6Y

Measurement ID

14524

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 6 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 6
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.89 EtgHandledP7G

Measurement ID

14509

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 7 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 7
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.90 EtgHandledP7Y

Measurement ID

14525

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 7 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 7
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.91 EtgHandledP8G

Measurement ID

14510

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 8 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 8
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.92 EtgHandledP8Y

Measurement ID

14526

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 8 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 8
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.93 EtgHandledP9G

Measurement ID

14511

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 9 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 9
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.94 EtgHandledP9Y

Measurement ID

14527

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 9 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 9
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.95 EtgHandledP10G

Measurement ID

14512

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 10 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 10
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.96 EtgHandledP10Y

Measurement ID

14528

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 10 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 10
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.97 EtgHandledP11G

Measurement ID

14513

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 11 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 11
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.98 EtgHandledP11Y

Measurement ID

14529

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 11 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 11
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.99 EtgHandledP12G

Measurement ID

14514

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 12 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 12
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.100 EtgHandledP12Y

Measurement ID

14530

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 12 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 12
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.101 EtgHandledP13G

Measurement ID

14515

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 13 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 13
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.102 EtgHandledP13Y

Measurement ID

14531

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 13 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 13
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.103 EtgHandledP14G

Measurement ID

14516

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 14 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 14

- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.104 EtgHandledP14Y

Measurement ID

14532

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 14 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 14
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.105 EtgHandledP15G

Measurement ID

14517

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 15 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 15
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.106 EtgHandledP15Y

Measurement ID

14533

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were not throttled/diverted with message priority 15 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 15
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.107 EtgDivertedOutP0G

Measurement ID

14534

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 0 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 0
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.108 EtgDivertedOutP0Y

Measurement ID

14550

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 0 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 0
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.109 EtgDivertedOutP1G

Measurement ID

14535

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 1 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 1
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.110 EtgDivertedOutP1Y

Measurement ID

14551

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 1 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 1
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.111 EtgDivertedOutP2G

Measurement ID

14536

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 2 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 2
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.112 EtgDivertedOutP2Y

Measurement ID

14552

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 2 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 2
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.113 EtgDivertedOutP3G

Measurement ID

14537

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 3 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 3
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.114 EtgDivertedOutP3Y

Measurement ID

14553

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 3 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 3
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.115 EtgDivertedOutP4G

Measurement ID

14538

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 4 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 4
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.116 EtgDivertedOutP4Y

Measurement ID

14554

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 4 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 4

- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.117 EtgDivertedOutP5G

Measurement ID

14539

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 5 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 5
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.118 EtgDivertedOutP5Y

Measurement ID

14555

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 5 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 5
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.119 EtgDivertedOutP6G

Measurement ID

14540

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 6 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 6
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.120 EtgDivertedOutP6Y

Measurement ID

14556

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 6 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 6
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.121 EtgDivertedOutP7G

Measurement ID

14541

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 7 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 7
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.122 EtgDivertedOutP7Y

Measurement ID

14557

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 7 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 7
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.123 EtgDivertedOutP8G

Measurement ID

14542

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 8 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 8
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.124 EtgDivertedOutP8Y

Measurement ID

14558

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 8 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 8
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.125 EtgDivertedOutP9G

Measurement ID

14543

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 9 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 9
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.126 EtgDivertedOutP9Y

Measurement ID

14559

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 9 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 9
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.127 EtgDivertedOutP10G

Measurement ID

14544

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 10 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 10
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.128 EtgDivertedOutP10Y

Measurement ID

14560

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 10 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 10
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.129 EtgDivertedOutP11G

Measurement ID

14545

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 11 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 11

- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.130 EtgDivertedOutP11Y

Measurement ID

14561

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 11 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 11
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.131 EtgDivertedOutP12G

Measurement ID

14546

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 12 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 12
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.132 EtgDivertedOutP12Y

Measurement ID

14562

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 12 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 12
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.133 EtgDivertedOutP13G

Measurement ID

14547

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 13 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 13
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.134 EtgDivertedOutP13Y

Measurement ID

14563

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 13 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 13
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.135 EtgDivertedOutP14G

Measurement ID

14548

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 14 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 14
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.136 EtgDivertedOutP14Y

Measurement ID

14564

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 14 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 14
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.137 EtgDivertedOutP15G

Measurement ID

14549

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 15 and color green

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 15
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.36.138 EtgDivertedOutP15Y

Measurement ID

14565

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETG which were throttled/diverted with message priority 15 and color yellow

Collection Interval

5 min

Peg Condition

The ETG was selected based on a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally, multiple criteria are met:

- Transaction was diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 15
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.36.139 EtgDivertedInPOG

Measurement ID

14806

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 0 and color green that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 0
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.36.140 EtgDivertedInP0Y

Measurement ID

14822

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 0 and color yellow that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 0
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.36.141 EtgDivertedInP1G

Measurement ID

14807

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 1 and color green that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 1
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.36.142 EtgDivertedInP1Y

Measurement ID

14823

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 1 and color yellow that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 1
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.36.143 EtgDivertedInP2G

Measurement ID

14808

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 2 and color green that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 2
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.36.144 EtgDivertedInP2Y

Measurement ID

14824

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 2 and color yellow that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 2
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.36.145 EtgDivertedInP3G

Measurement ID

14809

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 3 and color green that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 3
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.36.146 EtgDivertedInP3Y

Measurement ID

14825

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 3 and color yellow that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 3

- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.36.147 EtgDivertedInP4G

Measurement ID

14810

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 4 and color green that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 4
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.36.148 EtgDivertedInP4Y

Measurement ID

14826

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 4 and color yellow that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 4
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.36.149 EtgDivertedInP5G

Measurement ID

14811

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 5 and color green that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 5
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.36.150 EtgDivertedInP5Y

Measurement ID

14827

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 5 and color yellow that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 5
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.36.151 EtgDivertedInP6G

Measurement ID

14812

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 6 and color green that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 6
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.36.152 EtgDivertedInP6Y

Measurement ID

14828

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement DimensionArrayed

Description

Number of request messages with message priority 6 and color yellow that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 6
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.36.153 EtgDivertedInP7G

Measurement ID

14813

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 7 and color green that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 7
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.36.154 EtgDivertedInP7Y

Measurement ID

14829

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 7 and color yellow that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 7
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.36.155 EtgDivertedInP8G

Measurement ID

14814

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 8 and color green that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 8
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.36.156 EtgDivertedInP8Y

Measurement ID

14830

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 8 and color yellow that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 8
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.36.157 EtgDivertedInP9G

Measurement ID

14815

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 9 and color green that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 9
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.36.158 EtgDivertedInP9Y

Measurement ID

14831

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 9 and color yellow that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 9
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.36.159 EtgDivertedInP10G

Measurement ID

14816

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 10 and color green that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 10
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.36.160 EtgDivertedInP10Y

Measurement ID

14832

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 10 and color yellow that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 10

- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.36.161 EtgDivertedInP11G

Measurement ID

14817

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 11 and color green that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 11
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.36.162 EtgDivertedInP11Y

Measurement ID

14833

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 11 and color yellow that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 11
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.36.163 EtgDivertedInP12G

Measurement ID

14818

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 12 and color green that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 12
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.36.164 EtgDivertedInP12Y

Measurement ID

14834

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 12 and color yellow that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 12
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.36.165 EtgDivertedInP13G

Measurement ID

14819

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 13 and color green that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 13
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.36.166 EtgDivertedInP13Y

Measurement ID

14835

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 13 and color yellow that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 13
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.36.167 EtgDivertedInP14G

Measurement ID

14820

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 14 and color green that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 14
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.36.168 EtgDivertedInP14Y

Measurement ID

14836

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 14 and color yellow that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 14
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.36.169 EtgDivertedInP15G

Measurement ID

14821

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 15 and color green that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 15
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.36.170 EtgDivertedInP15Y

Measurement ID

14837

Measurement Group

Egress Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 15 and color yellow that were routed to ETG which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 15
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37 Egress Throttle List Performance measurements

The Diameter Egress Throttle List Performance measurement report contains measurements providing information related to a specific **ETL**.

3.37.1 TxEtIMsgRatePeak

Measurement ID

14052

Measurement Group

Egress Throttle List Performance

Measurement Type

Max

Measurement Dimension

Arrayed (by ETL ID)

Description

Peak Aggregated **ETL** Request Message Rate calculation made during the collection interval

Collection Interval

5 min

Peg Condition

An ETL Message Rate calculation A_t is periodically calculated. If the new A_t exceeds any previous A_{t-k} value for the collection interval, then this measurement will be updated with the new A_t value. This measurement is pegged regardless of whether the ETL's ETG is scoped to ETL or ETG level.

Measurement Scope

Site

Recovery

- No action required

3.37.2 TxEtlMsgRateAvg

Measurement ID

14053

Measurement Group

Egress Throttle List Performance

Measurement Type

Avg

Measurement Dimension

Arrayed (by ETL ID)

Description

Average **ETL** Request Message Rate calculation made during the collection interval

Collection Interval

5 min

Peg Condition

Each time an ETL Message Rate calculation A_t is calculated.

Measurement Scope

Network

Recovery

- No action required

3.37.3 EtlSelected

Measurement ID

14650

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to ETL

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Measurement Scope

Site

Recovery

- None

3.37.4 EtITmStaticThrottling

Measurement ID

14651

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Duration of time (in seconds) that ETL throttling was being applied.

Collection Interval

5 min

Peg Condition **Note:**

This measurement only applies when Limit Throttling mode is enabled and the ETG's control scope = ETL

A time duration interval is determined by:

- The time duration interval starts when:
 - The ETL's Operational Reason is changed to Static Rate Limit Exceeded
 - A new measurement collection interval begins and the ETL's Operational Reason is Static Rate Limit Exceeded
- The time duration interval stops when:
 - The ETL's Operational Reason is changed from Static Rate Limit Exceeded to any other value
 - The current measurement collection interval ends (such as the end of the current five minute collection interval)

- When a time duration interval completes, the time measured is added to the total measurement value

Measurement Scope

Site

Recovery

- None

3.37.5 EvEtlRateCongestionOnset

Measurement ID

14054

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by ETL ID)

Description

Number of times an **ETL-RCL** was advanced.

Collection Interval

5 min

Peg Condition

Each time the **EMR** Congestion Level is advanced

Measurement Scope

Network

Recovery

1. Verify that the "Maximum EMR" for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the "Rate Convergence Time" parameter for the ETL if necessary. Increasing the "Rate Convergence Time" value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the "EMR Abatement Timeout" for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.

7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.6 EvEtlRateDiscardPri0G

Measurement ID

14055

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by ETL ID)

Description

Number of Request Messages with priority 0 and color green discarded (with or without response) due to last connection evaluated for routing being **ETL** Rate Limited.

Collection Interval

5 min

Peg Condition

Each time that Routing Layer discarded a Request message with priority 0 and color green due to last connection evaluated being ETL Rate Limited

Measurement Scope

Network

Recovery

1. Verify that the "Maximum EMR" for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the "Rate Convergence Time" parameter for the ETL if necessary. Increasing the "Rate Convergence Time" value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the "EMR Abatement Timeout" for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.7 EvEtlRateDiscardPri0Y

Measurement ID

14729

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 0 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Rate Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 0 and color yellow due to last connection evaluated being ETL Rate Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETL if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the EMR Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.8 EvEtlRateDiscardPri1G

Measurement ID

14056

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by ETL ID)

Description

Number of Request Messages with priority 1 and color green discarded (with or without response) due to last connection evaluated for routing being **ETL** Rate Limited.

Collection Interval

5 min

Peg Condition

Each time that Routing Layer discarded a Request message with priority 1 and color green due to last connection evaluated being ETL Rate Limited

Measurement Scope

Network

Recovery

1. Verify that the "Maximum EMR" for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the "Rate Convergence Time" parameter for the ETL if necessary. Increasing the "Rate Convergence Time" value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the "EMR Abatement Timeout" for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.9 EvEtlRateDiscardPri1Y

Measurement ID

14730

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 1 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Rate Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 1 and color yellow due to last connection evaluated being ETL Rate Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETL if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the EMR Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.10 EvEtlRateDiscardPri2G

Measurement ID

14057

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by ETL ID)

Description

Number of Request Messages with priority 2 and color green discarded (with or without response) due to last connection evaluated for routing being **ETL** Rate Limited.

Collection Interval

5 min

Peg Condition

Each time that Routing Layer discarded a Priority 2 Request message due to last connection evaluated being ETL Rate Limited

Measurement Scope

Network

Recovery

1. Verify that the "Maximum EMR" for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the "Rate Convergence Time" parameter for the ETL if necessary. Increasing the "Rate Convergence Time" value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the "EMR Abatement Timeout" for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.11 EvEtlRateDiscardPri2Y

Measurement ID

14731

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 2 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Rate Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 2 and color yellow due to last connection evaluated being ETL Rate Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETL if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the EMR Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.12 EvEtlRateDiscardPri3G

Measurement ID

14716

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 3 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETL Rate Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 3 and color green due to last connection evaluated being ETL Rate Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETL if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the EMR Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.13 EvEtlRateDiscardPri3Y

Measurement ID

14732

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 3 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Rate Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 3 and color yellow due to last connection evaluated being ETL Rate Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETL if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the EMR Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.14 EvEtlRateDiscardPri4G

Measurement ID

14717

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 4 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETL Rate Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 4 and color green due to last connection evaluated being ETL Rate Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETL if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the EMR Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.15 EvEtlRateDiscardPri4Y

Measurement ID

14733

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 4 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Rate Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 4 and color yellow due to last connection evaluated being ETL Rate Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETL if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the EMR Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.16 EvEtlRateDiscardPri5G

Measurement ID

14718

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 5 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETL Rate Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 5 and color green due to last connection evaluated being ETL Rate Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETL if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the EMR Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.17 EvEtlRateDiscardPri5Y

Measurement ID

14734

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 5 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Rate Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 5 and color yellow due to last connection evaluated being ETL Rate Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETL if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the EMR Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.18 EvEtlRateDiscardPri6G

Measurement ID

14719

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 6 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETL Rate Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 6 and color green due to last connection evaluated being ETL Rate Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETL if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the EMR Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.19 EvEtlRateDiscardPri6Y

Measurement ID

14735

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 6 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Rate Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 6 and color yellow due to last connection evaluated being ETL Rate Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETL if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the EMR Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.20 EvEtlRateDiscardPri7G

Measurement ID

14720

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 7 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETL Rate Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 7 and color green due to last connection evaluated being ETL Rate Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETL if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the EMR Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.21 EvEtlRateDiscardPri7Y

Measurement ID

14736

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 7 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Rate Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 7 and color yellow due to last connection evaluated being ETL Rate Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETL if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the EMR Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.22 EvEtlRateDiscardPri8G

Measurement ID

14721

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 8 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETL Rate Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 8 and color green due to last connection evaluated being ETL Rate Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETL if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the EMR Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.23 EvEtlRateDiscardPri8Y

Measurement ID

14737

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 8 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Rate Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 8 and color yellow due to last connection evaluated being ETL Rate Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETL if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the EMR Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.24 EvEtlRateDiscardPri9G

Measurement ID

14722

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 9 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETL Rate Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 9 and color green due to last connection evaluated being ETL Rate Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETL if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the EMR Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.25 EvEtlRateDiscardPri9Y

Measurement ID

14738

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 9 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Rate Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 9 and color yellow due to last connection evaluated being ETL Rate Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETL if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the EMR Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.26 EvEtlRateDiscardPri10G

Measurement ID

14723

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 10 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETL Rate Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 10 and color green due to last connection evaluated being ETL Rate Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETL if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the EMR Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.27 EvEtlRateDiscardPri10Y

Measurement ID

14739

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 10 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Rate Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 10 and color yellow due to last connection evaluated being ETL Rate Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETL if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the EMR Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.28 EvEtlRateDiscardPri11G

Measurement ID

14724

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 11 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETL Rate Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 11 and color green due to last connection evaluated being ETL Rate Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETL if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the EMR Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.29 EvEtlRateDiscardPri11Y

Measurement ID

14740

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 11 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Rate Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 11 and color yellow due to last connection evaluated being ETL Rate Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETL if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the EMR Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.30 EvEtlRateDiscardPri12G

Measurement ID

14725

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 12 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETL Rate Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 12 and color green due to last connection evaluated being ETL Rate Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETL if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the EMR Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.31 EvEtlRateDiscardPri12Y

Measurement ID

14741

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 12 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Rate Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 12 and color yellow due to last connection evaluated being ETL Rate Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETL if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the EMR Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.32 EvEtlRateDiscardPri13G

Measurement ID

14726

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 13 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETL Rate Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 13 and color green due to last connection evaluated being ETL Rate Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETL if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the EMR Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.33 EvEtlRateDiscardPri13Y

Measurement ID

14742

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 13 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Rate Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 13 and color yellow due to last connection evaluated being ETL Rate Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETL if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the EMR Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.34 EvEtlRateDiscardPri14G

Measurement ID

14727

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 14 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETL Rate Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 14 and color green due to last connection evaluated being ETL Rate Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETL if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the EMR Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.35 EvEtlRateDiscardPri14Y

Measurement ID

14743

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 14 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Rate Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 14 and color yellow due to last connection evaluated being ETL Rate Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETL if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the EMR Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.36 EvEtlRateDiscardPri15G

Measurement ID

14728

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 15 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETL Rate Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 15 and color green due to last connection evaluated being ETL Rate Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETL if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the EMR Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.37 EvEtlRateDiscardPri15Y

Measurement ID

14744

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 15 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Rate Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 15 and color yellow due to last connection evaluated being ETL Rate Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EMR for the **ETL** is set sufficiently high.
2. Adjust the EMR onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Adjust the Rate Convergence Time parameter for the ETL if necessary. Increasing the Rate Convergence Time value allows the user to control the sensitivity of the request traffic bursts to **ETG** rate.
4. Verify the EMR Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EMR throttling too rapidly.
5. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
6. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.38 EvEtlPendingTransPeak

Measurement ID

14058

Measurement Group

Egress Throttle List Performance

Measurement Type

Max

Measurement Dimension

Arrayed (by ETL ID)

Description

Peak pending transactions to members of this **ETL** during the collection interval.

Collection Interval

5 min

Peg Condition

An ETL Pending Request calculation P_t is periodically calculated. If the new P_t value exceeds any previous P_{t-k} value for the collection interval, then this measurement will be updated with the new P_t value. This measurement is pegged regardless of whether the ETL's ETG is scoped to ETL or ETG level.

Measurement Scope

Network

Recovery

- No action required

3.37.39 EvEtlPendingTransAvg

Measurement ID

14059

Measurement Group

Egress Throttle List Performance

Measurement Type

Avg

Measurement Dimension

Arrayed (by ETL ID)

Description

Average pending transactions to members of this **ETL** during the collection interval.

Collection Interval

5 min

Peg Condition

An ETL Pending Request calculation P_t is periodically calculated. Each time P_t is calculated the Average Pending Requests measurement shall be updated. This measurement is pegged regardless of whether the ETL's ETG is scoped to ETL or ETG level.

Measurement Scope

Network

Recovery

- No action required

3.37.40 EvEtlPendingTransCongestionOnset

Measurement ID

14060

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by ETL ID)

Description

Number of times an **ETL-PCL** was advanced.

Collection Interval

5 min

Peg Condition

Each time the ETL Window Congestion Level is advanced

Measurement Scope

Network

Recovery

1. Verify that the "Maximum EPT" for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the "EPT Abatement Timeout" for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.

6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.41 EvEtlPendingTransDiscardPri0G

Measurement ID

14061

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by ETL ID)

Description

Number of Request Messages with priority 0 and color green discarded (with or without response) due to last connection evaluated for routing being **ETL** Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time that Routing Layer discarded a Request message with priority 0 and color green due to last connection evaluated being ETL Pending Transaction Limited

Measurement Scope

Network

Recovery

1. Verify that the "Maximum EPT" for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the "EPT Abatement Timeout" for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.42 EvEtlPendingTransDiscardPri0Y

Measurement ID

14758

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 0 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 0 and color yellow due to last connection evaluated being ETL Pending Transaction Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.43 EvEtlPendingTransDiscardPri1G

Measurement ID

14062

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by ETL ID)

Description

Number of Request Messages with priority 1 and color green discarded (with or without response) due to last connection evaluated for routing being **ETL** Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time that Routing Layer discarded a Request message priority 1 and color green due to last connection evaluated being ETL Pending Transaction Limited

Measurement Scope

Network

Recovery

1. Verify that the "Maximum EPT" for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the "EPT Abatement Timeout" for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.44 EvEtlPendingTransDiscardPri1Y

Measurement ID

14759

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 1 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 1 and color yellow due to last connection evaluated being ETL Pending Transaction Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.45 EvEtlPendingTransDiscardPri2

Measurement ID

14063

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by ETL ID)

Description

Number of Request Messages with priority 2 and color green discarded (with or without response) due to last connection evaluated for routing being **ETL** Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time that Routing Layer discarded a Request message with priority 2 and color green due to last connection evaluated being ETL Pending Transaction Limited

Measurement Scope

Network

Recovery

1. Verify that the "Maximum EPT" for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the "EPT Abatement Timeout" for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.46 EvEtlPendingTransDiscardPri2Y

Measurement ID

14760

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 2 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 2 and color yellow due to last connection evaluated being ETL Pending Transaction Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.47 EvEtlPendingTransDiscardPri3G

Measurement ID

14745

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 3 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETL Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 3 and color green due to last connection evaluated being ETL Pending Transaction Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.48 EvEtlPendingTransDiscardPri3Y

Measurement ID

14761

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 3 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 3 and color yellow due to last connection evaluated being ETL Pending Transaction Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.49 EvEtlPendingTransDiscardPri4G

Measurement ID

14746

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 4 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETL Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 4 and color green due to last connection evaluated being ETL Pending Transaction Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.50 EvEtlPendingTransDiscardPri4Y

Measurement ID

14762

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 4 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 4 and color yellow due to last connection evaluated being ETL Pending Transaction Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.51 EvEtlPendingTransDiscardPri5G

Measurement ID

14747

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 5 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETL Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 5 and color green due to last connection evaluated being ETL Pending Transaction Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.52 EvEtlPendingTransDiscardPri5Y

Measurement ID

14763

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 5 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 5 and color yellow due to last connection evaluated being ETL Pending Transaction Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.53 EvEtlPendingTransDiscardPri6G

Measurement ID

14748

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 6 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETL Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 6 and color green due to last connection evaluated being ETL Pending Transaction Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.54 EvEtlPendingTransDiscardPri6Y

Measurement ID

14764

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 6 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 6 and color yellow due to last connection evaluated being ETL Pending Transaction Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.55 EvEtlPendingTransDiscardPri7G

Measurement ID

14749

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 7 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETL Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 7 and color green due to last connection evaluated being ETL Pending Transaction Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.56 EvEtlPendingTransDiscardPri7Y

Measurement ID

14765

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 7 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 7 and color yellow due to last connection evaluated being ETL Pending Transaction Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.57 EvEtlPendingTransDiscardPri8G

Measurement ID

14750

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 8 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETL Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 8 and color green due to last connection evaluated being ETL Pending Transaction Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.58 EvEtlPendingTransDiscardPri8Y

Measurement ID

14766

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 8 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 8 and color yellow due to last connection evaluated being ETL Pending Transaction Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.59 EvEtlPendingTransDiscardPri9G

Measurement ID

14751

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 9 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETL Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 9 and color green due to last connection evaluated being ETL Pending Transaction Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.60 EvEtlPendingTransDiscardPri9Y

Measurement ID

14767

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 9 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 9 and color yellow due to last connection evaluated being ETL Pending Transaction Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.61 EvEtlPendingTransDiscardPri10G

Measurement ID

14752

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 10 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETL Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 10 and color green due to last connection evaluated being ETL Pending Transaction Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.62 EvEtlPendingTransDiscardPri10Y

Measurement ID

14768

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 10 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 10 and color yellow due to last connection evaluated being ETL Pending Transaction Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.63 EvEtlPendingTransDiscardPri11G

Measurement ID

14753

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 11 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETL Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 11 and color green due to last connection evaluated being ETL Pending Transaction Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.64 EvEtlPendingTransDiscardPri11Y

Measurement ID

14769

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 11 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 11 and color yellow due to last connection evaluated being ETL Pending Transaction Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.65 EvEtlPendingTransDiscardPri12G

Measurement ID

14754

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 12 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETL Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 12 and color green due to last connection evaluated being ETL Pending Transaction Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.66 EvEtlPendingTransDiscardPri12Y

Measurement ID

14770

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 12 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 12 and color yellow due to last connection evaluated being ETL Pending Transaction Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.67 EvEtlPendingTransDiscardPri13G

Measurement ID

14755

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 13 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETL Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 13 and color green due to last connection evaluated being ETL Pending Transaction Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.68 EvEtlPendingTransDiscardPri13Y

Measurement ID

14771

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 13 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 13 and color yellow due to last connection evaluated being ETL Pending Transaction Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.69 EvEtlPendingTransDiscardPri14G

Measurement ID

14756

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 14 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETL Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 14 and color green due to last connection evaluated being ETL Pending Transaction Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.70 EvEtlPendingTransDiscardPri14Y

Measurement ID

14772

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 14 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 14 and color yellow due to last connection evaluated being ETL Pending Transaction Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.71 EvEtlPendingTransDiscardPri15G

Measurement ID

14757

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 15 and color green that were discarded (with or without response) due to last connection evaluated for routing being ETL Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 15 and color green due to last connection evaluated being ETL Pending Transaction Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.72 EvEtlPendingTransDiscardPri15Y

Measurement ID

14773

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 15 and color yellow that were discarded (with or without response) due to last connection evaluated for routing being ETL Pending Transaction Limited

Collection Interval

5 min

Peg Condition

Each time the Routing Layer discards a request message with priority 15 and color yellow due to last connection evaluated being ETL Pending Transaction Limited.

Measurement Scope

Site

Recovery

1. Verify that the Maximum EPT for the **ETL** is set sufficiently high.
2. Adjust the **EPT** onset/abatement thresholds if necessary. Setting an abatement threshold too close to its onset threshold may trigger oscillation between higher and lower congestion levels.
3. Verify the EPT Abatement Timeout for the ETL is set sufficiently high. Short abatement time periods may result in triggering EPT throttling too rapidly.
4. Determine if other connections (not part of this **ETL**) to the adjacent Diameter Node are out of service thus causing more traffic to be sent on connections/peers of this ETL than what the adjacent Diameter Node can support on a per-connection basis.
5. Determine if the ETL is over-subscribed from a routing perspective. Any recent changes to DSR routing configurable may have inadvertently diverted more message traffic to connections/peers in this ETL.
6. Determine if the Peer is exhibiting congestion, causing it to either drop the Requests or process them slowly, causing Pending Transactions on DSR to increase and exceed the threshold.
7. If the problem persists, it is recommended to contact [#unique_131](#).

3.37.73 EvEtlPendingTransPeak

Measurement ID

14058

Measurement Group

Egress Throttle List Performance

Measurement Type

Max

Measurement Dimension

Arrayed (by ETL ID)

Description

Peak pending transactions to members of this **ETL** during the collection interval.

Collection Interval

5 min

Peg Condition

An ETL Pending Request calculation P_t is periodically calculated. If the new P_t value exceeds any previous P_{t-k} value for the collection interval, then this measurement will be updated with the new P_t value. This measurement is pegged regardless of whether the ETL's ETG is scoped to ETL or ETG level.

Measurement Scope

Network

Recovery

- No action required

3.37.74 EtlHandledPOG

Measurement ID

14652

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 0 and color green routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 0
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.75 EtlHandledPOY

Measurement ID

14668

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 0 and color yellow routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting

- Message Priority = 0
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.76 EtlHandledP1G

Measurement ID

14653

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 1 and color green routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 1
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.77 EtlHandledP1Y

Measurement ID

14669

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 1 and color yellow routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 1
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.78 EtlHandledP2G

Measurement ID

14654

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 2 and color green routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 2
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.79 EtlHandledP2Y

Measurement ID

14670

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 2 and color yellow routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 2
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.80 EtlHandledP3G

Measurement ID

14655

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 3 and color green routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting

- Message Priority = 3
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.81 EtlHandledP3Y

Measurement ID

14671

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 3 and color yellow routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 3
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.82 EtlHandledP4G

Measurement ID

14656

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 4 and color green routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 4
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.83 EtlHandledP4Y

Measurement ID

14672

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 4 and color yellow routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 4
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.84 EtlHandledP5G

Measurement ID

14657

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 5 and color green routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 5
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.85 EtlHandledP5Y

Measurement ID

14673

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 5 and color yellow routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting

- Message Priority = 5
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.86 EtlHandledP6G

Measurement ID

14658

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 6 and color green routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 6
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.87 EtlHandledP6Y

Measurement ID

14674

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 6 and color yellow routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 6
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.88 EtlHandledP7G

Measurement ID

14659

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 7 and color green routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 7
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.89 EtlHandledP7Y

Measurement ID

14675

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 7 and color yellow routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 7
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.90 EtlHandledP8G

Measurement ID

14660

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 8 and color green routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting

- Message Priority = 8
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.91 EtlHandledP8Y

Measurement ID

14676

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 8 and color yellow routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 8
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.92 EtlHandledP9G

Measurement ID

14661

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 9 and color green routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 9
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.93 EtlHandledP9Y

Measurement ID

14677

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 9 and color yellow routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 9
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.94 EtlHandledP10G

Measurement ID

14662

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 10 and color green routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 10
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.95 EtlHandledP10Y

Measurement ID

14678

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 10 and color yellow routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting

- Message Priority = 10
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.96 EtlHandledP11G

Measurement ID

14663

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 11 and color green routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 11
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.97 EtlHandledP11Y

Measurement ID

14679

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 11 and color yellow routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 11
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.98 EtlHandledP12G

Measurement ID

14664

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 12 and color green routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 12
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.99 EtlHandledP12Y

Measurement ID

14680

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 12 and color yellow routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 12
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.100 EtlHandledP13G

Measurement ID

14665

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 13 and color green routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting

- Message Priority = 13
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.101 EtlHandledP13Y

Measurement ID

14681

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 13 and color yellow routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 13
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.102 EtlHandledP14G

Measurement ID

14666

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 14 and color green routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 14
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.103 EtlHandledP14Y

Measurement ID

14682

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 14 and color yellow routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 14
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.104 EtlHandledP15G

Measurement ID

14667

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 15 and color green routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 15
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.105 EtlHandledP15Y

Measurement ID

14683

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 15 and color yellow routed to ETL which were not throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was not diverted by either Rate Limiting or Pending Transaction Limiting

- Message Priority = 15
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.106 EtlDivertedOutPOG

Measurement ID

14684

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 0 and color green routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 0
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.107 EtlDivertedOutP0Y

Measurement ID

14700

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 0 and color yellow routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 0
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.108 EtlDivertedOutP1G

Measurement ID

14685

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 1 and color green routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 1
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.109 EtlDivertedOutP1Y

Measurement ID

14701

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 1 and color yellow routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 1
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.110 EtlDivertedOutP2G

Measurement ID

14686

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 2 and color green routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 2
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.111 EtlDivertedOutP2Y

Measurement ID

14702

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 2 and color yellow routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 2
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.112 EtlDivertedOutP3G

Measurement ID

14687

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 3 and color green routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 3
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.113 EtlDivertedOutP3Y

Measurement ID

14703

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 3 and color yellow routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 3
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.114 EtlDivertedOutP4G

Measurement ID

14688

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 4 and color green routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 4
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.115 EtIDivertedOutP4Y

Measurement ID

14704

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 4 and color yellow routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 4
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.116 EtlDivertedOutP5G

Measurement ID

14689

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 5 and color green routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 5
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.117 EtlDivertedOutP5Y

Measurement ID

14705

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 5 and color yellow routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 5
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.118 EtlDivertedOutP6G

Measurement ID

14690

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 6 and color green routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 6
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.119 EtlDivertedOutP6Y

Measurement ID

14706

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 6 and color yellow routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 6
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.120 EtIDivertedOutP7G

Measurement ID

14691

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 7 and color green routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 7
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.121 EtIDivertedOutP7Y

Measurement ID

14707

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 7 and color yellow routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 7
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.122 EtIDivertedOutP8G

Measurement ID

14692

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 8 and color green routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 8
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.123 EtIDivertedOutP8Y

Measurement ID

14708

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 8 and color yellow routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 8
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.124 EtlDivertedOutP9G

Measurement ID

14693

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 9 and color green routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 9
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.125 EtIDivertedOutP9Y

Measurement ID

14709

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 9 and color yellow routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 9
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.126 EtIDivertedOutP10G

Measurement ID

14694

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 10 and color green routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 10
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.127 EtlDivertedOutP10Y

Measurement ID

14710

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 10 and color yellow routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 10
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.128 EtlDivertedOutP11G

Measurement ID

14695

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 11 and color green routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 11
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.129 EtlDivertedOutP11Y

Measurement ID

14711

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 11 and color yellow routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 11
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.130 EtlDivertedOutP12G

Measurement ID

14696

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 12 and color green routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 12
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.131 EtlDivertedOutP12Y

Measurement ID

14712

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 12 and color yellow routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 12
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.132 EtlDivertedOutP13G

Measurement ID

14697

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 13 and color green routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 13
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.133 EtlDivertedOutP13Y

Measurement ID

14713

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 13 and color yellow routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 13
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.134 EtlDivertedOutP14G

Measurement ID

14698

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 14 and color green routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 14
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.135 EtlDivertedOutP14Y

Measurement ID

14714

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 14 and color yellow routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 14
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.136 EtlDivertedOutP15G

Measurement ID

14699

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 15 and color green routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 15
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.137 EtlDivertedOutP15Y

Measurement ID

14715

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 15 and color yellow routed to ETL which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which is associate with an ETG. Additionally, either:

- ETG's Rate Limiting Admin State = Enabled
- ETG's Pending Transaction Limiting Admin State = Enabled

Multiple other criteria are also met:

- Transaction was throttled/diverted by either Rate Limiting or Pending Transaction Limiting
- Message Priority = 15
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.138 EtlDivertedInP0G

Measurement ID

14774

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 0 and color green that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 0
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.139 EtlDivertedInP0Y

Measurement ID

14790

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 0 and color yellow that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled

- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 0
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.140 EtlDivertedInP1G

Measurement ID

14775

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 1 and color green that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 1
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.141 EtlDivertedInP1Y

Measurement ID

14791

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 1 and color yellow that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 1
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.142 EtlDivertedInP2G

Measurement ID

14776

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 2 and color green that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 2
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.143 EtlDivertedInP2Y

Measurement ID

14792

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 2 and color yellow that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 2
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.144 EtIDivertedInP3G

Measurement ID

14777

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 3 and color green that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 3
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.145 EtIDivertedInP3Y

Measurement ID

14793

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 3 and color yellow that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 3
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.146 EtlDivertedInP4G

Measurement ID

14778

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 4 and color green that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 4
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.147 EtlDivertedInP4Y

Measurement ID

14794

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 4 and color yellow that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 4
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.148 EtlDivertedInP5G

Measurement ID

14779

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 5 and color green that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 5
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.149 EtlDivertedInP5Y

Measurement ID

14795

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 5 and color yellow that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 5
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.150 EtIDivertedInP6G

Measurement ID

14780

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 6 and color green that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 6
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.151 EtlDivertedInP6Y

Measurement ID

14796

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 6 and color yellow that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 6
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.152 EtlDivertedInP7G

Measurement ID

14781

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 7 and color green that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 7
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.153 EtlDivertedInP7Y

Measurement ID

14797

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 7 and color yellow that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 7

- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.154 EtlDivertedInP8G

Measurement ID

14782

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 8 and color green that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 8
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.155 EtlDivertedInP8Y

Measurement ID

14798

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 8 and color yellow that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 8
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.156 EtIDivertedInP9G

Measurement ID

14783

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 9 and color green that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 9
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.157 EtlDivertedInP9Y

Measurement ID

14799

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 9 and color yellow that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 9
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.158 EtlDivertedInP10G

Measurement ID

14784

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 10 and color green that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 10
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.159 EtlDivertedInP10Y

Measurement ID

14800

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 10 and color yellow that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 10
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.160 EtlDivertedInP11G

Measurement ID

14785

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 11 and color green that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 11
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.161 EtlDivertedInP11Y

Measurement ID

14801

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 11 and color yellow that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 11
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.162 EtlDivertedInP12G

Measurement ID

14786

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 12 and color green that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 12
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.163 EtlDivertedInP12Y

Measurement ID

14802

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 12 and color yellow that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 12
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.164 EtIDivertedInP13G

Measurement ID

14787

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 13 and color green that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 13
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.165 EtlDivertedInP13Y

Measurement ID

14803

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 13 and color yellow that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 13
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.166 EtlDivertedInP14G

Measurement ID

14788

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 14 and color green that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 14
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.167 EtlDivertedInP14Y

Measurement ID

14804

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 14 and color yellow that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 14

- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.37.168 EtlDivertedInP15G

Measurement ID

14789

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 15 and color green that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 15
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.37.169 EtlDivertedInP15Y

Measurement ID

14805

Measurement Group

Egress Throttle List Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 15 and color yellow that were routed to ETL which were throttled/diverted from another ETG/ETL.

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with an ETG. Additionally:

- The ETG's Pending Transaction Limiting Admin State = Enabled
- Transaction is marked as ETG/ETL Diverted in its PTR
- Message Priority = 15
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.38 Full Address Based Resolution (FABR) Application Exception measurements

The **FABR** Application Exception measurement group is a set of measurements that provide information about exceptions and unexpected messages and events that are specific to the FABR feature.

3.38.1 RxFabrBlacklistedImsi

Measurement ID

10658

Measurement Group

Full Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

The number of request messages received containing IMSI of a Blacklisted subscriber

Collection Interval

5 min

Peg Condition

Each time the Routing Exception "BlackListed Subscriber" is invoked

Measurement Scope

Server Group

Recovery

- No action required.

3.38.2 RxFabrBlacklistedMsisdn

Measurement ID

10659

Measurement Group

Full Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

The number of request messages received containing MSISDN of Blacklisted subscriber

Collection Interval

5 min

Peg Condition

Each time the Routing Exception "BlackListed Subscriber" is invoked

Measurement Scope

Server Group

Recovery

1. Validate which User identity address is not blacklisted by using **DP** configuration.
2. If the problem persists, it is recommended to contact [#unique_131](#).

3.38.3 RxFabrDecodeFailureResol

Measurement ID

10609

Measurement Group

Full Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Request messages rejected due to a message decoding error.

Collection Interval

5 min

Peg Condition

For each routing exception when the Application ID is not valid or the AVP extends beyond the length of the message indicated by the `Message Length` parameter in the message header.

Measurement Scope

Server Group

Recovery

- It is recommended to contact [#unique_131](#) for assistance.

3.38.4 RxFabrInvalidImsiMcc

Measurement ID

10657

Measurement Group

Full Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of times an AVP instance present in a Diameter request message is rejected due to the MCC contained in the decoded IMSI falling within one of the configured Reserved MCC Ranges.

Collection Interval

5 min

Peg Condition

Each time a Diameter request message is rejected due to the MCC contained in the decoded IMSI falling within one of the configured Reserved MCC Ranges.

Measurement Scope

Server Group

Recovery

1. Validate the ranges configured in the Reserved MCC Ranges table.

2. Verify that the MCC portion of the decodable IMSI received by RBAR does not fall within the configured Reserved MCC Ranges.
3. If the problem persists, it is recommended to contact [#unique_131](#).

3.38.5 RxFabrNgnPsDrop

Measurement ID

10672

Measurement Group

Full Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of FABR ingress NGN-PS messages discarded or rejected.

Collection Interval

5 min

Peg Condition

Each time NGN-PS Diameter message is dropped due these conditions:

- In scenarios where the configured action is 'Discard'
 - where address resolution is unsuccessful
 - Event sending to ComAgent is unsuccessful
 - Delivery failure notification from
- Event sending failure to DRL.

Measurement Scope

Server Group

Recovery

1. When non-zero, examine other failure measurements ([RxFabrUnkApplId](#), [RxFabrDecodeFailureResol](#), [RxFabrResolFailAll](#), [RxFabrResolFailCmdcode](#), [RxFabrResolFailNoAddrAvps](#), [TxFabrDbConFail](#), [TxFabrAbandonRequest](#), [RxFabrInvalidImsiMcc](#), [RxFabrBlacklistedImsi](#), [RxFabrBlacklistedMsidn](#)) to isolate reasons for failures.
2. It is recommended to contact [#unique_131](#) for assistance.

3.38.6 RxFabrResolFailAll

Measurement ID

10630

Measurement Group

Full Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Total number of Request messages received which did not resolve a Destination address.

Collection Interval

5 min

Peg Condition

For each Request message which did not resolve to a Destination address.

Measurement Scope

Server Group

Recovery

1. Validate which destination address is associated with the user identity address by using DP GUI.
2. It is recommended to contact [#unique_131](#) for assistance.

3.38.7 RxFabrResolFailCmdcode

Measurement ID

10631

Measurement Group

Full Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Request messages received with an unknown Command Code.

Collection Interval

5 min

Peg Condition

For each routing exception where the (Application ID, Command Code) pair in the incoming Request message is not configured.

Measurement Scope

Server Group

Recovery

- The currently provisioned Diameter Application IDs can be viewed in the FABR Configuration & Maintenance GUI.

It is recommended to contact [#unique_131](#) for assistance.

3.38.8 RxFabrResolFailDpCongested

Measurement ID

10669

Measurement Group

Full Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Database queries that failed to be serviced due DP/ComAgent errors.

Collection Interval

5 min

Peg Condition

When FABR application received service notification indicating Database (DP) or DB connection (ComAgent) Errors (DP timeout, errors, or ComAgent internal errors) for the sent database query.

Measurement Scope

Server Group

Recovery

- No action required

3.38.9 RxFabrResolFailImpiMatch

Measurement ID

10636

Measurement Group

Full Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Request messages received for which IMPI was used for Destination address resolution, but no Destination address was found.

Collection Interval

5 min

Peg Condition

For each message which did not successfully resolve to a Destination using a Routing Entity Type of IMPI.

Measurement Scope

Server Group

Recovery

1. Validate which destination address is associated with the user identity address by using DP GUI.
2. It is recommended to contact [#unique_131](#) for assistance.

3.38.10 RxFabrResolFailImpuMatch

Measurement ID

10637

Measurement Group

Full Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Request messages received for which IMPU was used for Destination address resolution, but no Destination address was found.

Collection Interval

5 min

Peg Condition

For each message which did not successfully resolve to a Destination using a Routing Entity Type of IMPU.

Measurement Scope

Server Group

Recovery

1. Validate which destination address is associated with the user identity address by using DP GUI.
2. It is recommended to contact [#unique_131](#) for assistance.

3.38.11 RxFabrResolFailmsiMatch

Measurement ID

10634

Measurement Group

Full Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Request messages received for which IMSI was used for Destination address resolution, but no Destination address was found.

Collection Interval

5 min

Peg Condition

For each message which did not successfully resolve to a Destination using a Routing Entity Type of IMSI.

Measurement Scope

Server Group

Recovery

1. Validate which destination address is associated with the user identity address by using DP GUI.
2. It is recommended to contact [#unique_131](#) for assistance.

3.38.12 RxFabrResolFailMsisdnMatch

Measurement ID

10635

Measurement Group

Full Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Request messages received for which MSISDN was used for Destination address resolution, but no Destination address was found.

Collection Interval

5 min

Peg Condition

For each message which did not successfully resolve to a Destination using a Routing Entity Type of MSISDN.

Measurement Scope

Server Group

Recovery

- Validate which destination address is associated with the user identity address by using DP GUI.
It is recommended to contact [#unique_131](#) for assistance.

3.38.13 RxFabrResolFailNoAddrAvps

Measurement ID

10632

Measurement Group

Full Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Request messages received without a Routing Entity Address AVP.

Collection Interval

5 min

Peg Condition

For each routing exception with no valid User Identity address found and the number of AVPs searched for the message was 0.

Measurement Scope

Server Group

Recovery

- If this event is considered abnormal, then use validate which AVPs are configured for routing with the Application ID and Command Code using the FABR GUI screen.
It is recommended to contact [#unique_131](#) for assistance.

3.38.14 RxFabrResolFailNoValidAddr

Measurement ID

10633

Measurement Group

Full Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Request messages received with at least Routing Entity Address AVP but no valid Routing Entity Addresses were found.

Collection Interval

5 min

Peg Condition

For each routing exception with no valid User Identity address found and the number of AVPs searched for the message was greater than 0.

Measurement Scope

Server Group

Recovery

1. If this event is considered abnormal, then use validate which AVPs are configured for routing with the Application ID and Command Code using the FABR GUI screen.
2. It is recommended to contact [#unique_131](#) for assistance.

3.38.15 RxFabrSrvNotiDpComAgentErrors

Measurement ID

10649

Measurement Group

Full Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (per Diameter Application)

Description

Number of failed Database queries received in the service notifications from Com Agent indicating DP/COM Agent errors.

Collection Interval

5 min

Peg Condition

When FABR receives a service notification from Communication Agent indicating a DP/Communication Agent error.

Measurement Scope

MP

Recovery

- No action necessary.

3.38.16 RxFabrSrvNotiDpCongest

Measurement ID

10647

Measurement Group

Full Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Service Notifications received from ComAgent indicating DP is congested with CL=2 or CL=3.

Collection Interval

5 min

Peg Condition

When FABR receives Service Notification from ComAgent indicating a DP congestion at CL=2 or CL=3.

Measurement Scope

MP

Recovery

- No action necessary.

3.38.17 RxFabrTransactionsRejected

Measurement ID

10670

Measurement Group

Full Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of transactions rejected by FABR.

Collection Interval

5 min

Peg Condition

Each time the RBAR application sends an answer response with Result-Code/Experimental-Code or abandons an ingress request message.

Measurement Scope

Server Group

Recovery

1. When non-zero, examine other failure measurements ([RxFabrUnkApplId](#), [RxFabrDecodeFailureResol](#), [RxFabrResolFailAll](#), [RxFabrResolFailCmdcode](#), [RxFabrResolFailNoAddrAvps](#), [TxFabrDbConFail](#), [TxFabrAbandonRequest](#), [RxFabrInvalidImsiMcc](#), [RxFabrBlacklistedImsi](#), [RxFabrBlacklistedMsisdn](#)) to isolate reasons for failures.
2. If the problem persists, it is recommended to contact [#unique_131](#).

3.38.18 RxFabrUnkApplId

Measurement ID

10608

Measurement Group

Full Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Request messages rejected due to an unknown Application ID.

Collection Interval

5 min

Peg Condition

For each routing exception when the Application ID is not valid.

Measurement Scope

Server Group

Recovery

1. The currently provisioned Diameter Application IDs can be viewed in the FABR Configuration & Maintenance GUI.
2. The currently provisioned Application Routing Rules can be viewed using **Main Menu** , and then **Diameter** , and then **Configuration** , and then **Application Routing Rules**.
3. It is recommended to contact [#unique_131](#) for assistance.

3.38.19 TxFabrDbConFail

Measurement ID

10639

Measurement Group

Full Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of database queries failed due to the **Communication Agent** queue exhaustion.

Collection Interval

5 min

Peg Condition

Each time the application attempts to send DP queries and fails due to **Communication Agent** queue exhaustion.

Measurement Scope

Server Group

Recovery

- It is recommended to contact [#unique_131](#) for assistance.

3.38.20 TxFabrFwdFail

Measurement ID

10640

Measurement Group

Full Address Resolution Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of routing attempt failures due to internal resource exhaustion.

Collection Interval

5 min

Peg Condition

Each time the application attempts to enqueue a Request message on the DSR **Relay Agent**'s "Request Message Queue" or enqueue a Answer message on "DRL Answer Queue" and it fails (e.g., queue full).

Measurement Scope

Server Group

Recovery

- It is recommended to contact [#unique_131](#) for assistance.

3.39 Full Address Based Resolution (FABR) Application Performance measurements

The FABR Application Performance measurement group is a set of measurements that provide performance information that is specific to the FABR feature. These measurements will allow you to determine how many messages are successfully forwarded and received to and from the FABR Application.

3.39.1 FabrAverageQueriesPerBundle

Measurement ID

10667

Measurement Group

Full Address Resolution Performance

Measurement Type

Average

Measurement Dimension

Single

Description

Average number of queries per Bundle sent by FABR.

Collection Interval

5 min

Peg ConditionWhen FABR successfully sends a Bundled query event to **ComAgent** for processing**Measurement Scope**

Server Group

Recovery

- No action required.

3.39.2 RxDpResponseTimeAvg

Measurement ID

10650

Measurement Group

Full Address Resolution Performance

Measurement Type

Average

Measurement Dimension

Single

Description

Average time (in milliseconds) it takes to receive a DP response after sending the correlated database query.

Collection Interval

5 min

Peg Condition

It is calculated based on the total number of sampled database queries during the collection interval.

Measurement Scope

MP

Recovery

- No action necessary.

3.39.3 RxFabrAvgMsgSize

Measurement ID

10623

Measurement Group

Full Address Resolution Performance

Measurement Type

Average

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Average size of Request message received.

Collection Interval

5 min

Peg Condition

Average calculated for each Request message received.

Measurement Scope

Server Group

Recovery

- No action necessary.

3.39.4 RxFabrBundledResponseEvents

Measurement ID

10666

Measurement Group

Full Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Bundled Response Events received by FABR.

Collection Interval

5 min

Peg Condition

When FABR successfully receives a Bundled response event from **ComAgent**.

Measurement Scope

Server Group

Recovery

- No action required.

3.39.5 RxFabrDpResponseMsgQueueAvg

Measurement ID

10655

Measurement Group

Full Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The average DP Response Message Queue utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

The average of all Request Message Queue utilization samples taken during the collection interval.

Measurement Scope

Server Group

Recovery

- This alarm may occur due to persistent overload conditions with respect to database response processing.

It is recommended to contact [#unique_131](#) for assistance.

3.39.6 RxFabrDpResponseMsgQueuePeak

Measurement ID

10654

Measurement Group

Full Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The peak DSR Application's DP Response Message Queue utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

The maximum DP Response Message Queue utilization sample taken during the collection interval.

Measurement Scope

Server Group

Recovery

- This alarm may occur due to persistent overload conditions with respect to database response processing.

It is recommended to contact [#unique_131](#) for assistance.

3.39.7 RxFabrMsgs

Measurement ID

10610

Measurement Group

Full Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Request messages received by FABR application.

Collection Interval

5 min

Peg Condition

For each message successfully de-queued from the application's internal "Message Event" queue.

Measurement Scope

Server Group

Recovery

- No action necessary.

3.39.8 RxFabrNgnPs

Measurement ID

10671

Measurement Group

Full Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of FABR ingress NGN-PS messages.

Collection Interval

5 min

Peg Condition

Each time NGN-PS Diameter message is received.

Measurement Scope

Server Group

Recovery

- No action required.

3.39.9 RxFabrResolAll

Measurement ID

10611

Measurement Group

Full Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Addresses Successfully Resolved to a Destination.

Collection Interval

5 min

Peg Condition

For each message successfully resolved to a Destination.

Measurement Scope

Server Group

Recovery

- No action necessary.

3.39.10 RxFabrResolAllMp

Measurement ID

10653

Measurement Group

Full Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Addresses Successfully Resolved to a Destination by the MP.

Collection Interval

5 min

Peg Condition

For each message successfully resolved to a Destination by the MP.

Measurement Scope

Server Group

Recovery

- No action necessary.

3.39.11 RxFabrResolExtId

Measurement ID

10673

Measurement Group

Full Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (Per Diameter Application)

Description

Number of addresses successfully resolved with a complete External Identifier.

Collection Interval

5 min

Peg Condition

For each request message successfully resolved to a destination using a Routing Entity Type of External Identifier as defined by the following requirements:

- R166849_SIGP_RTE_DEST_0020
- R166849_SIGP_RTE_DEST_0030
- R166849_SIGP_RTE_DEST_0040

and the DP response indicates:

- The query was successful; and
- An exact match was found using the entire External Identifier.

Measurement Scope

Server Group

Recovery

- No action necessary.

3.39.12 RxFabrResolExtIdDomainId

Measurement ID

10674

Measurement Group

Full Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (Per Diameter Application)

Description

Number of addresses successfully resolved with the domain identifier received in an External Identifier.

Collection Interval

5 min

Peg Condition

For each request message successfully resolved to a destination using a Routing Entity Type of External Identifier as defined by the following requirements:

- R166849_SIGP_RTE_DEST_0020
- R166849_SIGP_RTE_DEST_0030
- R166849_SIGP_RTE_DEST_0040

and the DP response indicates:

- The query was successful; and
- An exact match was found using only the domain identifier component of the entire External Identifier.

Measurement Scope

Server Group

Recovery

- No action necessary.

3.39.13 RxFabrResolFailExtIdMatch

Measurement ID

10675

Measurement Group

Full Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (Per Diameter Application)

Description

Number of request messages received with a valid External Identifier AVP value that did not match a provisioned address.

Collection Interval

5 min

Peg Condition

For each request message that did not successfully resolve to a destination using a Routing Entity Type of External Identifier.

Measurement Scope

Server Group

Recovery

- No action necessary.

3.39.14 RxFabrResolImpi

Measurement ID

10615

Measurement Group

Full Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Addresses Successful Resolved with Routing Entity type IMPI.

Collection Interval

5 min

Peg Condition

For each message successfully resolved to a Destination using a Routing Entity Type of IMPI.

Measurement Scope

Server Group

Recovery

- No action necessary.

3.39.15 RxFabrResolImpu

Measurement ID

10616

Measurement Group

Full Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Addresses Successful Resolved with Routing Entity type IMPU.

Collection Interval

5 min

Peg Condition

For each message successfully resolved to a Destination using a Routing Entity Type of IMPU.

Measurement Scope

Server Group

Recovery

- No action necessary.

3.39.16 RxFabrResolImsi

Measurement ID

10613

Measurement Group

Full Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Addresses Successful Resolved with Routing Entity type IMSI.

Collection Interval

5 min

Peg Condition

For each message successfully resolved to a Destination using a Routing Entity Type of IMSI.

Measurement Scope

Server Group

Recovery

- No action necessary.

3.39.17 RxFabrResolMsisdn

Measurement ID

10614

Measurement Group

Full Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Addresses Successful Resolved with Routing Entity type MSISDN.

Collection Interval

5 min

Peg Condition

For each message successfully resolved to a Destination using a Routing Entity Type of MSISDN.

Measurement Scope

Server Group

Recovery

- No action necessary.

3.39.18 RxFabrResolRateAvg

Measurement ID

10606

Measurement Group

Full Address Resolution Performance

Measurement Type

Average

Measurement Dimension

Single

Description

Average Addresses Successfully Resolved per second.

Collection Interval

5 min

Peg Condition

The “average per second” is periodically calculated based on the total number of addresses successfully resolved.

Measurement Scope

Server Group

Recovery

- No action required.

3.39.19 RxFabrResolRatePeak

Measurement ID

10607

Measurement Group

Full Address Resolution Performance

Measurement Type

Max

Measurement Dimension

Single

Description

Peak Addresses Successfully Resolved per second.

Collection Interval

5 min

Peg Condition

At the end of each sample period associated with average successfully resolved message rate, as defined by measurement [RxFabrResolRateAvg](#), if the value exceeds the current value for this measurement, then the measurement will be updated with the current sample periods value.

Measurement Scope

Server Group

Recovery

- No action required.

3.39.20 TxFabrAbandonRequest

Measurement ID

10656

Measurement Group

Full Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Request message that are abandoned.

Collection Interval

5 min

Peg Condition

Each time the Routing Exception “Abandon Request” is invoked.

Measurement Scope

Server Group

Recovery

- No action necessary.

3.39.21 TxFabrBundledQueryEvents

Measurement ID

10665

Measurement Group

Full Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Bundled Query Events sent to **ComAgent**.

Collection Interval

5 min

Peg Condition

When FABR successfully sends a Bundled query event to **ComAgent** for processing.

Measurement Scope

Server Group

Recovery

- No action required.

3.39.22 TxFabrFwdDefaultDest

Measurement ID

10621

Measurement Group

Full Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Request message forwarding attempts using a Default Destination.

Collection Interval

5 min

Peg Condition

Each time the Routing Exception "Forward route the message with a user-configurable Default Destination" is invoked.

Measurement Scope

Server Group

Recovery

- No action necessary.

3.39.23 TxFabrFwdNochange

Measurement ID

10620

Measurement Group

Full Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Request message forwarding attempts without changing the message.

Collection Interval

5 min

Peg Condition

Each time the Routing Exception "Forward route the message unchanged" is invoked.

Measurement Scope

Server Group

Recovery

- No action necessary.

3.39.24 TxFabrFwdSuccess

Measurement ID

10622

Measurement Group

Full Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Request messages successfully forwarded (all reasons).

Collection Interval

5 min

Peg Condition

Each time the application successfully enqueues a Request message on the DSR **Relay Agent's** Request Message Queue.

Measurement Scope

Server Group

Recovery

- If this value is less than [TxFabrMsgAttempt](#), then an internal resource error is occurring. It is recommended to contact [#unique_131](#) for assistance.

3.39.25 TxFabrMsgAttempt

Measurement ID

10619

Measurement Group

Full Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Application ID)

Description

Number of Request message forwarding attempts (all reasons).

Collection Interval

5 min

Peg Condition

Each time the application attempts to enqueue a Request message on the DSR **Relay Agent's** "Request Message Queue".

Measurement Scope

Server Group

Recovery

- No action necessary.

3.39.26 TxFabrDbQueryExtId

Measurement ID

10676

Measurement Group

Full Address Resolution Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of DB queries sent to **DP** based on decoded external identifier.

Collection Interval

5 min

Peg Condition

When FABR successfully sends a query event to **DP** for processing.

Measurement Scope

Server Group

Recovery

- No action required.

3.40 IDIH measurements

The **IDIH** measurement report contains measurements that provide performance information that is specific to the IDIH feature.

3.40.1 EvldihNumTtrsSent

Measurement ID

14104

Measurement Group

IDIH

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of TTRs that were sent from DSR to **DIH**.

Collection Interval

5 min

Peg Condition

Each time a **TTR** is successfully transmitted from DSR to DIH.

Measurement Scope

Site

Recovery

- No action required

3.40.2 EvldihNumTtrsDeliveryFailed

Measurement ID

14105

Measurement Group

IDIH

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of TTRs that could not be sent from DSR to **DIH** due to the failure of the **ComAgent** link.

Collection Interval

5 min

Peg Condition

Each time a **TTR** cannot be successfully transmitted from DSR to DIH.

Measurement Scope

Site

Recovery

- Re-establish the ComAgent link to DIH.

3.40.3 TmldihTraceSuspendedTime

Measurement ID

14106

Measurement Group

IDIH

Measurement Type

Duration

Measurement Dimension

Single

Description

The amount of time that trace limiting is active

Collection Interval

5 min

Peg Condition

Each time trace limiting is activated and stopped when trace limiting is de-activated.

Measurement Scope

Site

Recovery

- No action required

3.40.4 TmldihTraceThrottlingTime

Measurement ID

14107

Measurement Group

IDIH

Measurement Type

Duration

Measurement Dimension

Single

Description

The amount of time that trace throttling is active.

Collection Interval

5 min

Peg Condition

Each time trace throttling is activated and stopped when trace throttling is deactivated.

Measurement Scope

Site

Recovery

- No action required

3.40.5 EvldihThrottlingTtrsDiscarded

Measurement ID

14108

Measurement Group

IDIH

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of TTRs discarded due to trace throttling.

Collection Interval

5 min

Peg ConditionEach time a **TTR** is discarded due to trace throttling.**Measurement Scope**

Site

Recovery

- No action required

3.40.6 EvInvalidIdihTraceAvp

Measurement ID

14110

Measurement Group

IDIH

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of messages that contained IDIH-Trace AVPs within invalid values.

Collection Interval

5 min

Peg Condition

Every time that an IDIH-Trace AVP is received with a values that does not follow the defined format or names a trace that does not exist.

Measurement Scope

Recovery

1. If this AVP was present in a message from an external peer, verify that the peer is not intentionally modifying this AVP. (Peers may either copy the IDIH-Trace AVP unchanged, or remove it entirely, but may not modify it).
2. If this AVP was present in a message from a DA-MP peer, it is recommended to contact [#unique_131](#).

3.40.7 EvNetworkTraceStarted

Measurement ID

14111

Measurement Group

IDIH

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of times that a network trace has been started.

Collection Interval

5 min

Peg Condition

Every time that a network trace is started

Measurement Scope

Recovery

- No action required

3.41 IPFE Exception measurements

The IP Front End (IPFE) exception measurement group is a set of measurements that provide information about exceptions and unexpected messages and events specific to the IPFE application. Measurements such as the following are included in this group.

3.41.1 PcapDroppedPackets

Measurement ID

5212

Measurement Group

IPFE Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

ARP/ICMP/ICMPv6 control packets dropped. The pcap library listens for packets on the network interfaces on behalf of the IPFE. If the network interface receives more packets than it can handle, the library will drop packets and increase a dropped packet counter.

Collection Interval

5 min

Peg Condition

This measurement is incremented by one each time the IPFE drops an ARP/ICMP/ICMPv6 control packet.

Measurement Scope

Network, NE, Server Group

Recovery

1. In the unlikely event that counts should appear for this measurement, network diagnostics should be performed.
2. For further assistance, It is recommended to contact [#unique_131](#).

3.41.2 ThrottledPackets

Measurement ID

5226

Measurement Group

IPFE Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of packets dropped due to throttling

Collection Interval

5 min, 30 min, 60 min

Peg Condition

When a packet is dropped to limit excessive IPFE CPU

Measurement Scope

Network

Recovery

- Increase DSR Capacity.

3.41.3 TsaBadDestPortSctp

Measurement ID

5228

Measurement Group

IPFE Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by TSA ID)

Description

The number of packets received that had a destination port outside of the responder port range and the initiator port range.

Collection Interval

5 minutes

Peg Condition

Incremented when a packet that has an out-of-range destination port is received

Measurement Scope

Network, NE, Server Group

Recovery

- OAM validation should prevent a DA-MP from using an out-of-range port as a source port. Check the configuration of the peer node.

3.41.4 TsaBadDestPortTcp

Measurement ID

5227

Measurement Group

IPFE Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by TSA ID)

Description

The number of packets received that had a destination port outside of the responder port range and the initiator port range.

Collection Interval

5 minutes

Peg Condition

Incremented when a packet that has an out-of-range destination port is received

Measurement Scope

Network, NE, Server Group

Recovery

- OAM validation should prevent a DA-MP from using an out-of-range port as a source port. Check the configuration of the peer node.

3.41.5 TsaUnexpctedSctp

Measurement ID

5225

Measurement Group

IPFE Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by TSA ID)

Description

Number of SCTP packets sent to a TSA configured as “TCP Only”.

Collection Interval

5 min

Peg Condition

Incremented when an SCTP packet is received for a TSA configured as “TCP Only”.

Measurement Scope

Network, NE, Server Group

Recovery

- Check client configuration for clients attempting SCTP associations with a TCP-only TSA.

3.41.6 TsaUnexpctedTcp

Measurement ID

5224

Measurement Group

IPFE Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by TSA ID)

Description

Number of TCP packets sent to a TSA configured as “SCTP Only”.

Collection Interval

5 minutes

Peg Condition

Incremented when a TCP packet is received for a TSA configured as “SCTP Only”.

Measurement Scope

Network, NE, Server Group

Recovery

- Check client configuration for clients attempting TCP connections on an SCTP-only TSA.

3.41.7 TxReject

Measurement ID

5209

Measurement Group

IPFE Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by TSA ID)

Description

Number of new associations rejected. The IPFE rejects new associations when there are no available applications servers for the target set address. The associated alarm, 5009 - No available servers in target set (refer to the *DSR Alarms and KPIs Reference* for details about this alarm), will also be issued.

Collection Interval

5 minutes

Peg Condition

This measurement is incremented by one each time the IPFE rejects a new association for a target set address.

Measurement Scope

Network, NE, Server Group

Recovery

- Check the status of the application servers by navigating to the **Status & Manage**, and then **Server** page.

3.41.8 TxRejectSctp

Measurement ID

5222

Measurement Group

IPFE Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

New SCTP associations rejected.

Collection Interval

5 minutes

Peg Condition

Incremented when an SCTP association is rejected.

Measurement Scope

Network, NE, Server Group

Recovery

- None required

3.42 IPFE Performance Measurements

The IP Front End (IPFE) performance measurement group contains measurements that provide performance information that is specific to the IPFE application. Counts for various expected/normal messages and events are included in this group. Measurements such as the following are included.

3.42.1 AsNewAssociations

Measurement ID

5204

Measurement Group

IPFE Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Application Server ID)

Description

New associations for each server.

Collection Interval

5 minutes

Peg Condition

This measurement is incremented by one each time the IPFE associates a client packet with an application server.

Measurement Scope

Network, NE, Server Group

Recovery

- No action required

3.42.2 AsNewAssociationsSctp

Measurement ID

5217

Measurement Group

IPFE Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Application Server ID)

Description

New SCTP associations for each server.

Collection Interval

5 minutes

Peg Condition

Incremented when a new SCTP association is established for an application server.

Measurement Scope

Network, NE, Server Group

Recovery

- No action required

3.42.3 IpfeNewAssociations

Measurement ID

5206

Measurement Group

IPFE Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

New associations for the IPFE.

Collection Interval

5 minutes

Peg Condition

This measurement is incremented by one each time the IPFE associates a client packet with an application server.

Measurement Scope

Network, NE, Server Group

Recovery

- No action required

3.42.4 IpfeNewAssociationsSctp

Measurement ID

5219

Measurement Group

IPFE Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

New Sctp associations for the IPFE

Collection Interval

5 minutes

Peg Condition

Incremented when a new Sctp association is established through an IPFE.

Measurement Scope

Network, NE, Server Group

Recovery

- None required

3.42.5 RxlpfeBytes

Measurement ID

5203

Measurement Group

Simple

Measurement Type

IPFE Performance

Measurement Dimension

Single

Description

The number of bytes received by the IPFE.

Collection Interval

5 minutes, 30 minutes, 60 minutes

Peg Condition

The measurement is incremented by one for each byte the IPFE receives.

Measurement Scope

Network, NE, Server Group

Recovery

- No action required

3.42.6 RxIpfeBytesSctp

Measurement ID

5223

Measurement Group

IPFE Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of SCTP bytes received by the IPFE.

Collection Interval

5 minutes, 30 minutes, 60 minutes

Peg Condition

Incremented by the packet payload size when an SCTP packet is received by the IPFE.

Measurement Scope

Network, NE, Server Group

Recovery

- No action required

3.42.7 RxIpfePackets

Measurement ID

5202

Measurement Group

IPFE Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Packets received by the IPFE

Collection Interval

5 minutes

Peg Condition

This measurement is incremented by one for each packet the IPFE receives.

Measurement Scope

Network, NE, Server Group

Recovery

- No action required

3.42.8 RxTsaBytes

Measurement ID

5201

Measurement Group

IPFE Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TSA ID)

Description

Bytes received for each TSA.

Collection Interval

5 minutes

Peg Condition

This measurement is incremented by one each time a byte is received for a particular target set address.

Measurement Scope

Network, NE, Server Group

Recovery

- No action required

3.42.9 RxTsaBytesSctp

Measurement ID

5214

Measurement Group

IPFE Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TSA ID)

Description

SCTP bytes received for each TSA

Collection Interval

5 minutes

Peg Condition

This measurement is incremented by one each time an SCTP byte is received for a particular target set address.

Measurement Scope

Network, NE, Server Group

Recovery

- No action required

3.42.10 RxTsaPackets

Measurement ID

5200

Measurement Group

IPFE Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TSA ID)

Description

Packets received for each TSA

Collection Interval

5 minutes

Peg Condition

This measurement is incremented by one each time a packet is received for a particular TSA.

Measurement Scope

Network, NE, Server Group

Recovery

- No action required

3.42.11 RxTsaPacketsSctp

Measurement ID

5213

Measurement Group

IPFE Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TSA ID)

Description

SCTP packets received for each TSA.

Collection Interval

5 minutes

Peg Condition

This measurement is incremented by one each time an SCTP packet is received for a particular TSA.

Measurement Scope

Network, NE, Server Group

Recovery

- No action required

3.42.12 TsaNewAssociations

Measurement ID

5205

Measurement Group

IPFE Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TSA ID)

Description

New associations for each target set address

Collection Interval

5 minutes

Peg Condition

This measurement is incremented by one each time the IPFE associates a client packet with a target set address.

Measurement Scope

Network, NE, Server Group

Recovery

- No action required

3.42.13 TsaNewAssociationsSctp

Measurement ID

5218

Measurement Group

IPFE Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TSA ID)

Description

New SCTP associations for each TSA.

Collection Interval

5 minutes

Peg Condition

Incremented when a new SCTP association is established for a TSA.

Measurement Scope

Network, NE, Server Group

Recovery

- No action required

3.42.14 TxAsBytes

Measurement ID

5208

Measurement Group

IPFE Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Bytes sent for each server.

Collection Interval

5 minutes

Peg Condition

This measurement is incremented by one each time a byte is sent to a particular application server.

Measurement Scope

Network, NE, Server Group

Recovery

- No action required

3.42.15 TxAsBytesSctp

Measurement ID

5221

Measurement Group

IPFE Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TSA ID)

Description

SCTP bytes sent for each server.

Collection Interval

5 minutes

Peg Condition

This measurement is incremented by one each time an SCTP byte is sent to a particular application server.

Measurement Scope

Network, NE, Server Group

Recovery

- No action required

3.42.16 TxAsPackets

Measurement ID

5207

Measurement Group

IPFE Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Application Server ID)

Description

Packets sent for each server.

Collection Interval

5 minutes

Peg Condition

This measurement is incremented by one each time a packet is sent to a particular application server.

Measurement Scope

Network, NE, Server Group

Recovery

- No action required

3.42.17 TxAsPacketsSctp

Measurement ID

5220

Measurement Group

IPFE Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Application Server ID)

Description

SCTP packets sent for each server.

Collection Interval

5 minutes

Peg Condition

This measurement is incremented by one each time an SCTP packet is sent to a particular application server.

Measurement Scope

Network, NE, Server Group

Recovery

- No action required

3.43 License measurements

The License measurement report contains measurements providing information about network MPS and place association sessions for Policy DRA and Online Charging DRA.

3.43.1 NetworkElementMPS

Measurement ID

14091

Measurement Group

License

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Network message rate per second per Network Element.

Collection Interval

5 min

Peg Condition

Network element MPS for the time interval based on request and answer messages

Measurement Scope

Network

Recovery

- No action required.

3.43.2 NetworkMPS

Measurement ID

14097

Measurement Group

License

Measurement Type

Simple

Measurement Dimension

Single

Description

Network messages per second for the entire network

Collection Interval

5 min

Peg Condition

Network messages per second based on request and answer messages

Measurement Scope

Network

Recovery

- No action required.

3.43.3 NetworkOcdraSessions

Measurement ID

14099

Measurement Group

License

Measurement Type

Simple

Measurement Dimension

Single

Description

Average number of active sessions for OC-DRA for the entire network

Collection Interval

5 min

Peg Condition

Average number of active sessions for OC-DRA for every 5-minute interval

Measurement Scope

Network

- No action required

3.43.4 NetworkPdraSessions

Measurement ID

14098

Measurement Group

License

Measurement Type

Simple

Measurement Dimension

Single

Description

Average number of active sessions for P-DRA for the entire network

Collection Interval

5 min

Peg Condition

Average number of active sessions for P-DRA for every 5-minute interval

Measurement Scope

Network

- No action required

3.43.5 NetworkPeakMPS

Measurement ID

14092

Measurement Group

License

Measurement Type

Max

Measurement Dimension

Single

Description

Network peak messages per second for the entire network

Collection Interval

5 min

Peg Condition

Network peak MPS based on request and answer messages

Measurement Scope

Network

Recovery

- No action required.

3.43.6 PlaceAssociationPdraSessions

Measurement ID

14093

Measurement Group

License

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Average number of active sessions per place association for Policy DRA

Collection Interval

5 min

Peg Condition

Average number of active sessions for every five minute interval per place association for Policy DRA

Measurement Scope

Network

Recovery

- No action required.

3.43.7 PlaceAssociationPeakPdraSessions

Measurement ID

14094

Measurement Group

License

Measurement Type

Max

Measurement Dimension

Single

Description

Place association peak sessions for the entire network for Policy DRA

Collection Interval

5 min

Peg Condition

Place association peak sessions

Measurement Scope

Network

Recovery

- No action required.

3.43.8 PlaceAssociationOcdraSessions

Measurement ID

14095

Measurement Group

License

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Average number of active sessions per place association for Online Charging DRA

Collection Interval

5 min

Peg Condition

Average number of active sessions for every five minute interval per place association for Online Charging DRA

Measurement Scope

Network

Recovery

- No action required.

3.43.9 PlaceAssociationPeakOcdraSessions

Measurement ID

14096

Measurement Group

License

Measurement Type

Max

Measurement Dimension

Single

Description

Place association peak sessions for the entire network for Online Charging DRA

Collection Interval

5 min

Peg Condition

Place association peak sessions

Measurement Scope

Network

Recovery

- No action required.

3.44 Link Exception measurements

The Link Exception measurement report contains measurements that provide information that is specific to links configured for the MP server.

3.44.1 EvLnkActAckTO

Measurement ID

9120

Measurement Group

Link Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (per link)

Description

The number of times the link timed out waiting for ASP-ACTIVE-ACK. An ASP-ACTIVE-ACK is sent by the SG in response to an ASP-ACTIVE message on the link. The link is not available for M3UA data signaling until the ASP-ACTIVE-ACK is received.

Collection Interval

30 min

Peg Condition

This measurement is incremented by one each time an ASP-ACTIVE has been sent for the link and the M3UA State Management ACK timer has expired, but no ASP-ACTIVE-ACK was received for the link.

Measurement Scope

NE, Server

Recovery

1. This measurement should have a zero value. You can view Link status from the GUI main menu under **SS7/Sigtran**, and then **Maintenance**, and then **Links**.
2. Check the event history log from the GUI main menu under **Alarms & Events**, and then **View History**. Look for Event ID 19229, which shows when the ASP-ACTIVE-ACK timeout occurs.
3. Verify that the far-end of the link on the SG is not undergoing maintenance.
4. Verify that the **State Management ACK Timer** period is not set too short.
5. Verify that the IP network between the MP server and the SG is performing up to expectations.
6. It is recommended to contact [#unique_131](#) for assistance if needed.

3.44.2 RxLnkUnsollnactAck

Measurement ID

9121

Measurement Group

Link Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (per link)

Description

The number of times an unsolicited ASP-INACTIVE-ACK was received on the link. ASP-INACTIVE-ACK may be sent unsolicited by the SG to indicate that the specified link is no longer able to process M3UA data signaling. The MP server will begin attempts to bring the link back into the signaling state matching its administrative state. For example, if the link is **Enabled**, the MP server will attempt to restore M3UA data signaling on the link by sending an ASP-ACTIVE and waiting for an ASP-ACTIVE-ACK.

Collection Interval

30 min

Peg Condition

This measurement is incremented by one each time an unsolicited ASP-INACTIVE-ACK is received on the link.

Measurement Scope

NE, Server

Recovery

1. This measurement should have a zero value. A non-zero value means that the far-end of the link has stopped processing M3UA data. You can view Link status from the GUI main menu under **SS7/Sigtran**, and then **Maintenance**, and then **Links**.
2. Check the event history log from the GUI main menu under **Alarms & Events**, and then **View History**, looking for Event ID 19230. Event ID 19230 will show when the unsolicited ASP-INACTIVE-ACK was received.
3. Verify whether the far-end of the link is undergoing maintenance.
4. It is recommended to contact [#unique_131](#) for assistance if needed.

3.44.3 RxLnkM3uaERROR

Measurement ID

9123

Measurement Group

Link Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (per link)

Description

The number of times an M3UA ERROR message was received for the link. M3UA ERROR message are sent to indicate invalid M3UA signaling.

Collection Interval

30 min

Peg Condition

This measurement is incremented by one each time an M3UA ERROR message is received and that ERROR message can be attributed to a specific link (i.e., the ERROR message contains a valid routing context, or no routing context is needed).

Measurement Scope

NE, Server

Recovery

1. This measurement should have a value of zero. A non-zero value indicates a problem with the M3UA signaling sent by the MP server.
2. Look for Event ID 19235 from the GUI main menu under **Alarms & Events**, and then **View History**. **Event ID 19235** provides information on the reason for the receipt of the ERROR message.
3. If the ERROR reason in Event ID 19235 indicates a problem with routing context (i.e., error code 0x19), verify that the MP server link set and the SG are configured to agree on the routing context values that each M3UA signaling link uses.
4. It is recommended to contact [#unique_131](#) for assistance if needed.

3.44.4 RxLnkInvalidM3ua

Measurement ID

9144

Measurement Group

Link Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (per link)

Description

The number of invalid M3UA messages received on the link. Invalid M3UA messages are messages that violate the M3UA protocol, but which can be attributed to a specific link (i.e., a valid routing context exists or no routing context is necessary).

Collection Interval

30 min

Peg Condition

This measurement is incremented by one each time an invalid M3UA message is received for the link.

Measurement Scope

NE, Server

Recovery

1. This measurement should have a value of zero. A non-zero value indicates a problem with the M3UA signaling received by the MP server.

2. Look for Event ID 19231 from the GUI main menu under **Alarms & Events**, and then **View History**. Event ID 19231 provides information on the reason the M3UA message was rejected.
3. If the ERROR reason in Event ID 19231 indicates a problem with the routing context (i.e., error code 0x19), verify that the MP server link set and the SG are configured to agree on the routing context values that each M3UA signaling link uses.
4. It is recommended to contact [#unique_131](#) for assistance if needed.

3.45 Link Performance measurements

The Link Performance measurement report contains measurements that provide performance information that is specific to links configured for the MP server.



Note:

ASPSM messages and some M3UA ERROR messages cannot be mapped to a link and are not counted in these measurements.

3.45.1 TxLnkMSU

Measurement ID

9113

Measurement Group

Link Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (per link)

Description

The number of MSUs sent on the link, including all M3UA messages, both DATA and non-DATA.



Note:

ASPSM messages and some M3UA ERROR messages cannot be mapped to a link and are therefore not counted in this measurement.

Collection Interval

30 min

Peg Condition

This measurement is incremented by one each time an M3UA message is sent on the link.

Measurement Scope

NE, Server

Recovery

- No action required

3.45.2 RxLnkMSU

Measurement ID

9114

Measurement Group

Link Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (per link)

Description

The number of MSUs received on the link. MSUs includes all M3UA messages, both DATA and non-DATA. Note: ASPSM messages and some M3UA ERROR messages cannot be mapped to a link and are therefore not counted in this measurement.

Collection Interval

30 min

Peg Condition

This measurement is incremented by one each time an M3UA message is received on the link.

Measurement Scope

NE, Server

Recovery

- No action required.

3.45.3 TxLnkMSUOctets

Measurement ID

9115

Measurement Group

Link Performance

Measurement Type

Arrayed (per link)

Measurement Dimension

Simple

Description

The number of MSU octets sent on the link, including all M3UA messages, both DATA and non-DATA.



Note:

ASPSM messages and some M3UA ERROR messages cannot be mapped to a link and are therefore not counted in this measurement.

Collection Interval

30 min

Peg Condition

This measurement is incremented by the number of octets in the MSU (not including SCTP, IP, or Ethernet headers) each time an M3UA message is sent on the link.

Measurement Scope

NE, Server

Recovery

- No action required.

3.45.4 RxLnkMSUOctets

Measurement ID

9116

Measurement Group

Link Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (per link)

Description

The number of MSU octets received on the link – MSU octets includes all M3UA messages, both DATA and non-DATA. Note: ASPSM messages and some M3UA ERROR messages cannot be mapped to a link and are therefore not counted in this measurement.

Collection Interval

30 min

Peg Condition

This measurement is incremented by the number of octets in the MSU (not including SCTP, IP, or Ethernet headers) each time an M3UA message is received on the link.

Measurement Scope

NE, Server

Recovery

- No action required.

3.46 Link Set Performance measurements

The Link Set Performance measurement report contains measurements that provide performance information that is specific to link sets configured for the MP server.

3.46.1 TxLnkSetMSU

Measurement ID

9124

Measurement Group

Link Set Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (per link set)

Description

The number of MSUs sent on the link set , including all M3UA DATA messages sent on all links in the link set.

Collection Interval

30 min

Peg Condition

This measurement is incremented by one each time an M3UA DATA message is sent on a link in the link set.

Measurement Scope

NE, Server

Recovery

- No action required.

3.46.2 RxLnkSetMSU

Measurement ID

9125

Measurement Group

Link Set Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (per link set)

Description

The number of MSUs sent on the link set, including all M3UA DATA messages received on all links in the link set.

Collection Interval

30 min

Peg Condition

This measurement is incremented by one each time an M3UA DATA message is received on a link in the link set.

Measurement Scope

NE, Server

Recovery

- No action required.

3.46.3 TxLnkSetMSUOctets

Measurement ID

9126

Measurement Group

Link Set Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (per link set)

Description

The number of MSU octets sent on the link set, including all M3UA DATA octets sent on all links in the link set. Octets for SCTP, IP, and Ethernet headers are not included.

Collection Interval

30 min

Peg Condition

This measurement is incremented by the number of octets in the M3UA DATA message each time an M3UA DATA message is sent on a link in the link set.

Measurement Scope

NE, Server

Recovery

- No action required.

3.46.4 RxLnkSetMSUOctets

Measurement ID

9127

Measurement Group

Link Set Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (per link set)

Description

The number of MSU octets received on the link set, including all M3UA DATA octets received on all links in the link set. Octets for SCTP, IP, and Ethernet headers are not included.

Collection Interval

30 min

Peg Condition

This measurement is incremented by the number of octets in the M3UA DATA message each time an M3UA DATA message is received on a link in the link set.

Measurement Scope

NE, Server

Recovery

- No action required.

3.47 Link Set Usage measurements

The Link Set Usage measurement report contains measurements that provide usage information that is specific to link sets configured for the MP server.

3.47.1 TmM3RLLinksetUnavail

Measurement ID

9090

Measurement Group

Link Set Usage

Measurement Type

Duration

Measurement Dimension

Arrayed (by Linkset)

Description

Total time (in seconds) that all links in the link set were unavailable to M3RL during the measurement interval, regardless of whether the links were automatically or manually made unavailable.

Collection Interval

30 min

Peg Condition

M3RL must maintain an accurate time and measurement of the number of seconds during the collection period that the Link Set's state is **Unavailable**. This measurement is associated with the duration (in seconds) that Alarm 19202 - Link Set Unavailable (refer to the *DSR Alarms and KPIs Reference* for details about this alarm) is asserted during the collection period.

Start of duration measurement for Link Set "X" criteria:

1. Alarm 19202 is asserted for Link Set "X."
2. Start of new collection period AND Alarm 19202 for Linkset "X" is already asserted (during a previous collection interval).

Stop of duration measurement for Link Set "X" criteria:

1. Alarm 19202 for Linkset "X" is cleared (i.e, Link Set becomes **Available**).
2. End of collection interval.

Measurement Scope

Recovery

- This value provides a measure of the availability of a Link Set. No action required.

3.48 Link Usage measurements

The Link Usage measurement report contains measurements that provide usage information that is specific to links configured for the MP server.

3.48.1 TmLnkMOOS

Measurement ID

9117

Measurement Group

Link Usage

Measurement Type

Duration

Measurement Dimension

Arrayed (per link)

Description

The number of seconds the link is manual out of service during the reporting period. A link is manual out of service when the link is in the **Disabled** administrative state.

Collection Interval

Time is accumulated for this measurement when the link administrative state is set to **Disabled**.

 **Note:**

The link is not considered to be manually out of service if the link is in the **Enabled** administrative state even if the association that hosts the link is manually out of service.

Peg Condition

30 min

Measurement Scope

NE, Server

Recovery

1. If a non-zero value in this field is unexpected (i.e., no link maintenance is known to have occurred), the link status can be viewed from the GUI under **SS7/Sigtran**, and then **Maintenance**, and then **Links**.
2. Also, look in the GUI main menu under **Alarms & Events**, and then **View History** in the event history for Event 19234 - Local link maintenance state change (refer to the *DSR Alarms and KPIs Reference* for details about this event). Event 19234 records each change in the link's administrative state. If the link was known to be under maintenance, this value represents the number of seconds during the reporting period that the link was in the **Disabled** administrative state.

3.48.2 TmLnkOOS

Measurement ID

9118

Measurement Group

Link Usage

Measurement Type

Duration

Measurement Dimension

Arrayed (per link)

Description

The number of seconds the link is out of service for any reason during the reporting period. A link may be out of service due to the following conditions:

- Maintenance activity – link is **Disabled** or link's association is **Disabled** or **Blocked**.
- Failure of the link to receive ASP-ACTIVE-ACK.
- Receipt of unsolicited ASP-INACTIVE-ACK from the SG.
- The link's association is not in the **Normal** status – failed to establish SCTP connection, failed to receive ASP-UP-ACK, received unsolicited ASP-DOWN-ACK

Collection Interval

30 min

Peg Condition

Time is accumulated for this measurement when the link status reason is not **Normal**.

Measurement Scope

NE, Server

Recovery

1. This measurement should have a value of zero. If the link or the link's association is known to be under maintenance, then a non-zero value in this measurement is expected.
2. Otherwise, the link status can be viewed from the GUI main menu under **SS7/Sigtran**, and then **Maintenance**, and then **Links**.
3. Also look in the event history from the GUI main menu under **Alarms & Events**, and then **View History** for events related to this link or the link's association.
4. It is recommended to contact [#unique_131](#) for assistance if needed.

3.48.3 TmLnkAvailable

Measurement ID

9119

Measurement Group

Link Usage

Measurement Type

Duration

Measurement Dimension

Arrayed (per link)

Description

The number of seconds the link is in service during the reporting period. The link is considered to be in service if the link's status reason is **Normal**. An in-service link is available for M3UA DATA signaling.

Collection Interval

30 min

Peg Condition

Time is accumulated for this measurement when the link status reason is **Normal**.

Measurement Scope

NE, Server

Recovery

1. If all is well, this value should equal the length of the reporting period, meaning that the link was active for the entire reporting period. If the link-available time is not equal to the reporting period, it could be due to one of the following conditions:
 - Link maintenance. The measurements **TmLnkMOOS** and **TmLnkOOS** should have a non-zero values. See the actions for [TmLnkMOOS](#).
 - Link failure. The measurement **TmLnkOOS** should have a non-zero value. See the actions for [TmLnkOOS](#).

- The link was added during the reporting period. The report indicates that the data is incomplete for the reporting period.
2. It is recommended to contact [#unique_131](#) for assistance if needed.

3.48.4 EvLnkManClose

Measurement ID

9145

Measurement Group

Link Usage

Measurement Type

Simple

Measurement Dimension**Description**

The number of times a link was closed due to manual action. This count indicates the number of times that a link transitioned from ASP-ACTIVE to ASP-INACTIVE as a direct result of someone changing the link administrative state from **Enabled** to **Disabled**.

Collection Interval

30 min

Peg Condition

This measurement is incremented by one each time the link administrative state is changed from **Enabled** to **Disabled**, causing a protocol state transition from ASP-ACTIVE to ASP-INACTIVE.

Measurement Scope

NE, Server

Recovery

1. If the link is known to be under maintenance, then no further action is necessary. If the link was not known to be under maintenance, then link status can be viewed from the GUI main menu under **SS7/Sigtran**, and then **Maintenance**, and then **Links**.
2. View the event history from the GUI main menu under **Alarms & Events**, and then **View History** looking for **Event ID 19234**. **Event ID 19234** shows the manual link state transitions and contains a time-stamp of when the change occurred.
3. The security logs from the GUI main menu under **Security Logs** can be searched using the time-stamp from the event history log to determine which login performed the manual state change on the link.
4. It is recommended to contact [#unique_131](#) for assistance if needed.

3.49 Diameter Application Server Measurements

The Diameter Application Server (DAS) measurements reflect the **Message Copy** performance. These measurements allow the user to monitor the amount of traffic being copied and the percentage of times that messages were successfully (or

unsuccessfully) copied. Measurements such as the following are included in this group:

- Number of messages being copied
- Number of errors in transmitting those copies (i.e., retransmits)
- Number of times a copy transaction failed
- Tx and **Message Copy** queue utilization

3.49.1 DASCopyAnswerRx

Measurement ID

10065

Measurement Group

DAS

Measurement Type

Simple

Measurement Dimension

Single

Description

The total number of DAS Copy Answers received.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time an Answer response is received from a DAS peer.

Measurement Scope

Server Group

Recovery

- No action required.

This measurement is an indication of the **Message Copy** response traffic load being processed by the MP.

3.49.2 DASCopyDiscarded

Measurement ID

10069

Measurement Group

DAS

Measurement Type

Simple

Measurement Dimension

Single

Description

Total number of **Message Copy** failures because of any error (no Answer received, the result code in the Answer didn't match provisioning).

Collection Interval

5 min

Peg Condition

This measurement is incremented each time a DAS Copy fails for any reason. Some failure reasons include (but are not limited to): no answer from peer, Application ID not supported at the peer, result code in the Answer incorrect/doesn't match provisioning.

Measurement Scope

Server Group

Recovery

1. Verify proper routing to the intended DAS peer is configured and in service (route list is properly configured), Diameter application is selecting intended route list.
2. Verify intended DAS peer is properly configured to receive the intended traffic and traffic load.
3. Verify no network issues exist between the **MP** and intended DAS peer.
4. It is recommended to contact [#unique_131](#) for assistance.

3.49.3 DASCopyFailureMCCSNotProvisioned

Measurement ID

10089

Measurement Group

DAS

Measurement Type

Simple

Measurement Dimension

Single

Description

Total amount of DAS Copy failures due to the copied message not finding a provisioned MCCS.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time the Copy Pending Transaction is discarded because the original message does not contain a valid MCCS, thus causing the copy action to fail.

Measurement Scope

Server Group

Recovery

1. Verify the MCCS configured with the trigger points and ensure proper provisioning.

2. If the problem persists, it is recommended to contact [#unique_131](#).

3.49.4 DASCopyFailureMPCong

Measurement ID

10068

Measurement Group

DAS

Measurement Type

Simple

Measurement Dimension

Single

Description

Total number of DAS Copy Failures because the **MP** was congested.

Collection Interval

5 min

Peg Condition

When the **MP** declares congestion (declared CL1-CL3), the **Message Copy** function is disabled. Original messages marked for copy and held as a Pending Transactions are not copied and increment this measurement. If the Copy has been sent to the DAS peer, the Copy transaction will be allowed to complete. If the Copy transaction fails, another measurement will be incremented.

Either the **MP** is receiving traffic in excess of its rated capacity or the intended DAS peer is not responding in a timely fashion.

Measurement Scope

Server Group

Recovery

1. Reduce traffic being received by the MP.
2. Verify there are no network issues between the **MP** and the intended DAS peer.
3. Ensure the intended DAS peer has sufficient capacity to process the traffic being directed to it by the MP
4. It is recommended to contact [#unique_131](#) for assistance.

3.49.5 DASCopyFailurePeerAppIdUnsup

Measurement ID

10059

Measurement Group

DAS

Measurement Type

Simple

Measurement Dimension

Single

Description

Total amount of DAS Copy Failures because the Diameter Application Layer has specified a route list with no peer for the application ID in the message.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time the Copy Pending Transaction is discarded because a Diameter Request has been marked for copy by the application, but no connection in the provided Route List supports the Application ID in the request, causing the copy action to fail.

Measurement Scope

Server Group

Recovery

1. Verify the route list provisioning points to the intended DAS peer, and the intended DAS peer is responding with the desired Application ID.
2. It is recommended to contact [#unique_131](#) for assistance.

3.49.6 DASCopyFailureSizeExceeded

Measurement ID

10058

Measurement Group

DAS

Measurement Type

Simple

Measurement Dimension

Single

Description

Total amount of DAS Copy failures due to the copied message size exceeding the maximum message size configured for the system.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time the Copy Pending Transaction is discarded because a the message being copied to the DAS exceeded the system set maximum message size, thus causing the copy action to fail.

Measurement Scope

Server Group

Recovery

1. Verify the maximum message size set system wide is sufficient for handling the messages being processed.
2. It is recommended to contact [#unique_131](#) for assistance.

3.49.7 DASCopyFailureRLNotProv

Measurement ID

10067

Measurement Group

DAS

Measurement Type

Simple

Measurement Dimension

Single

Description

Total number of DAS Copy Failures because the route list is not provisioned.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time the Copy Pending Transaction fails because the indicated route list contained in the Diameter request does not match what has been provisioned as a system option or other provisioned route lists.

Measurement Scope

Server Group

Recovery

1. Review local provisioning that connections to intended DAS peer server(s) are in service and that no network issues exist in the path(s) to intended DAS peer server(s).
2. Review DAS peer provisioning to insure proper configuration.
3. It is recommended to contact [#unique_131](#) for assistance.

3.49.8 DASCopyRetransmits

Measurement ID

10056

Measurement Group

DAS

Measurement Type

Simple

Measurement Dimension

Single

Description

Total number of DAS Copy retransmits.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time any Copied Message is retransmitted to a DAS peer because a qualified Diameter Answer response has not been received within the Pending Answer Timer's timeout value to complete the pending transaction.

Measurement Scope

Server Group

Recovery

1. Verify proper routing to the intended DAS peer is configured and in service (route list is properly configured), Diameter application is selecting intended route list.
2. Verify intended DAS peer is properly configured to receive the intended traffic and traffic load.
3. Verify no network issues exist between the **MP** and intended DAS peer.
4. It is recommended to contact [#unique_131](#) for assistance.

3.49.9 DASCopyRetransmitsExceeded

Measurement ID

10057

Measurement Group

DAS

Measurement Type

Simple

Measurement Dimension

Single

Description

Total number of times the DAS Copy retransmits exceeded the configured max number of retransmits.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time a Copy Pending Transaction is discarded because the Copied Request has been retransmitted the configured number of times without receiving an Answer response from the DAS peer.

Measurement Scope

Server Group

Recovery

1. Verify proper routing to the intended DAS peer is configured and in service (route list is properly configured), Diameter application is selecting intended route list.

2. Verify intended DAS peer is properly configured to receive the intended traffic and traffic load.
3. Verify no network issues exist between the **MP** and intended DAS peer.
4. It is recommended to contact [#unique_131](#) for assistance.

3.49.10 DASCopyTx

Measurement ID

10064

Measurement Group

DAS

Measurement Type

Simple

Measurement Dimension

Single

Description

The total number of DAS Copies forwarded.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time a **Message Copy** is transmitted to a DAS peer.

Measurement Scope

Server Group

Recovery

- No action required.

This measurement is an indication of the **Message Copy** traffic load being processed by the MP.

3.49.11 DASCopyValidAnswer

Measurement ID

10066

Measurement Group

DAS

Measurement Type

Simple

Measurement Dimension

Single

Description

The total number of DAS Copy transactions completed (a Copy Pending Transaction has been paired with a qualified Answer from the DAS peer).

Collection Interval

5 min

Peg Condition

This measurement is incremented each time a Copy Pending Transaction is completed because a Diameter Copy Pending Transaction has been paired with a qualified Answer received from a DAS peer, completing the transaction.

Measurement Scope

Server Group

Recovery

1. Verify proper routing to the intended DAS peer is selected and in service.
2. desired answer result code is provisioned in the **Diameter**, and then **System Options**.
3. desired DAS peer is configured to return the answer result code provisioned in the **Diameter**, and then **System Options**.
4. It is recommended to contact [#unique_131](#) for assistance.

3.49.12 TxMsgCopyQueueAve

Measurement ID

10048

Measurement Group

DAS

Measurement Type

Average

Measurement Dimension

Single

Description

The average **Message Copy** Queue utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a new **Message Copy** SysMetric sample is collected, then divided by the number of samples collected in the collection period.

Measurement Scope

Server Group

Recovery

- No action required.

This is a diagnostic indicator of the amount of traffic load being processed by the **Message Copy** feature.

3.49.13 TxMsgCopyQueueFullDiscard

Measurement ID

10084

Measurement Group

DAS

Measurement Type

Simple

Measurement Dimension

Single

Description

Total number of DAS Request messages discarded because the **Message Copy** queue was full.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time a DAS Request is discarded because the **Message Copy** Tx queue was full, thus preventing a new DAS Request from being queued for transmit.

Measurement Scope

Server Group

Recovery

- No action required.

This is a diagnostic indicator of the amount of traffic load being processed by the **Message Copy** feature.

3.49.14 TxMsgCopyQueuePeak

Measurement ID

10047

Measurement Group

DAS

Measurement Type

Max

Measurement Dimension

Single

Description

The peak **Message Copy** Queue utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

This measurement is pegged when a new **Message Copy** SysMetric sample is collected and the sample exceeds the previously saved peak for the collection period. When a new collection period is begun, the peak is reset to 0.

Measurement Scope

Server Group

Recovery

- No action required.

This is a diagnostic indicator of the amount of traffic load being processed by the **Message Copy** feature.

3.50 Message Priority measurements

The Message Priority measurement group contains measurements that provide information on message priority assigned to ingress Diameter messages. Measurements such as these are included in this group.

- Totals for the number of Request messages set to priority X when received from a peer.
- Totals for the number of Request messages set to priority X as a result of PRT processing.

3.50.1 RxMsgPri0PeerRule

Measurement ID

10028

Measurement Group

Message Priority

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Request messages set to priority "0" as a result of PRT processing.

Collection Interval

5 min

Peg Condition

Each time DRL selects a peer routing rule for routing a Request message, the rule action is set to “Route to Peer”, and a Message Priority of “0” is assigned to the peer routing rule.

Measurement Scope

Server Group

Recovery

- No action necessary.

3.50.2 RxMsgPri1PeerRule

Measurement ID

10029

Measurement Group

Message Priority

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Request messages set to priority “1” as a result of PRT processing.

Collection Interval

5 min

Peg Condition

Each time DRL selects a peer routing rule for routing a Request message, the rule action is set to “Route to Peer”, and a Message Priority of “1” is assigned to the peer routing rule.

Measurement Scope

Server Group

Recovery

- No action necessary.

3.50.3 RxMsgPri2PeerRule

Measurement ID

10033

Measurement Group

Message Priority

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Request messages set to priority “2” as a result of PRT processing.

Collection Interval

5 min

Peg Condition

Each time DRL selects a peer routing rule for routing a Request message, the rule action is set to “Route to Peer”, and a Message Priority of “2” is assigned to the peer routing rule.

Measurement Scope

Server Group

Recovery

- No action necessary.

3.50.4 RxMsgPri3PeerRule

Measurement ID

14078

Measurement Group

Message Priority

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Request messages set to priority 3 as a result of PRT processing.

Collection Interval

5 min

Peg Condition

Each time DRL selects a peer routing rule for routing a Request message, the rule action is set to Route to Peer, and a Message Priority of 3 is assigned to the peer routing rule.

Measurement Scope

Site

Recovery

- No action necessary.

3.50.5 RxMsgPri4PeerRule

Measurement ID

14079

Measurement Group

Message Priority

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Request messages set to priority 4 as a result of PRT processing.

Collection Interval

5 min

Peg Condition

Each time DRL selects a peer routing rule for routing a Request message, the rule action is set to Route to Peer, and a Message Priority of 4 is assigned to the peer routing rule.

Measurement Scope

Site

Recovery

- No action necessary.

3.50.6 RxMsgPri5PeerRule

Measurement ID

14080

Measurement Group

Message Priority

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Request messages set to priority 5 as a result of PRT processing.

Collection Interval

5 min

Peg Condition

Each time DRL selects a peer routing rule for routing a Request message, the rule action is set to Route to Peer, and a Message Priority of 5 is assigned to the peer routing rule.

Measurement Scope

Site

Recovery

- No action necessary.

3.50.7 RxMsgPri6PeerRule

Measurement ID

14081

Measurement Group

Message Priority

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Request messages set to priority 6 as a result of PRT processing.

Collection Interval

5 min

Peg Condition

Each time DRL selects a peer routing rule for routing a Request message, the rule action is set to Route to Peer, and a Message Priority of 6 is assigned to the peer routing rule.

Measurement Scope

Site

Recovery

- No action necessary.

3.50.8 RxMsgPri7PeerRule

Measurement ID

14082

Measurement Group

Message Priority

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Request messages set to priority 7 as a result of PRT processing.

Collection Interval

5 min

Peg Condition

Each time DRL selects a peer routing rule for routing a Request message, the rule action is set to Route to Peer, and a Message Priority of 7 is assigned to the peer routing rule.

Measurement Scope

Site

Recovery

- No action necessary.

3.50.9 RxMsgPri8PeerRule

Measurement ID

14083

Measurement Group

Message Priority

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Request messages set to priority 8 as a result of PRT processing.

Collection Interval

5 min

Peg Condition

Each time DRL selects a peer routing rule for routing a Request message, the rule action is set to Route to Peer, and a Message Priority of 8 is assigned to the peer routing rule.

Measurement Scope

Site

Recovery

- No action necessary.

3.50.10 RxMsgPri9PeerRule

Measurement ID

14084

Measurement Group

Message Priority

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Request messages set to priority 9 as a result of PRT processing.

Collection Interval

5 min

Peg Condition

Each time DRL selects a peer routing rule for routing a Request message, the rule action is set to Route to Peer, and a Message Priority of 9 is assigned to the peer routing rule.

Measurement Scope

Site

Recovery

- No action necessary.

3.50.11 RxMsgPri10PeerRule

Measurement ID

14085

Measurement Group

Message Priority

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Request messages set to priority 10 as a result of PRT processing.

Collection Interval

5 min

Peg Condition

Each time DRL selects a peer routing rule for routing a Request message, the rule action is set to Route to Peer, and a Message Priority of 10 is assigned to the peer routing rule.

Measurement Scope

Site

Recovery

- No action necessary.

3.50.12 RxMsgPri11PeerRule

Measurement ID

14086

Measurement Group

Message Priority

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Request messages set to priority 11 as a result of PRT processing.

Collection Interval

5 min

Peg Condition

Each time DRL selects a peer routing rule for routing a Request message, the rule action is set to Route to Peer, and a Message Priority of 11 is assigned to the peer routing rule.

Measurement Scope

Site

Recovery

- No action necessary.

3.50.13 RxMsgPri12PeerRule

Measurement ID

14087

Measurement Group

Message Priority

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Request messages set to priority 12 as a result of PRT processing.

Collection Interval

5 min

Peg Condition

Each time DRL selects a peer routing rule for routing a Request message, the rule action is set to Route to Peer, and a Message Priority of 12 is assigned to the peer routing rule.

Measurement Scope

Site

Recovery

- No action necessary.

3.50.14 RxMsgPri13PeerRule

Measurement ID

14088

Measurement Group

Message Priority

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Request messages set to priority 13 as a result of PRT processing.

Collection Interval

5 min

Peg Condition

Each time DRL selects a peer routing rule for routing a Request message, the rule action is set to Route to Peer, and a Message Priority of 13 is assigned to the peer routing rule.

Measurement Scope

Site

Recovery

- No action necessary.

3.50.15 RxMsgPri14PeerRule

Measurement ID

14089

Measurement Group

Message Priority

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Request messages set to priority 14 as a result of PRT processing.

Collection Interval

5 min

Peg Condition

Each time DRL selects a peer routing rule for routing a Request message, the rule action is set to Route to Peer, and a Message Priority of 14 is assigned to the peer routing rule.

Measurement Scope

Site

Recovery

- No action necessary.

3.50.16 RxMsgPri15PeerRule

Measurement ID

14090

Measurement Group

Message Priority

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Request messages set to priority 15 as a result of PRT processing.

Collection Interval

5 min

Peg Condition

Each time DRL selects a peer routing rule for routing a Request message, the rule action is set to Route to Peer, and a Message Priority of 15 is assigned to the peer routing rule.

Measurement Scope

Site

Recovery

- No action necessary.

3.51 MP Performance measurements

The Message Processor (MP) performance measurement report contains measurements that provide performance information for an MP server.

3.51.1 EvLongTimeoutPtrPoolAvg

Measurement ID

10295

Measurement Group

MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average Diameter Long Timeout PTR Buffer Pool utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

The average of all Diameter Long Timeout PTR Buffer Pool utilization samples taken during the collection interval.

Measurement Scope

Server Group

Recovery

1. If both the peak and average measurements for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an MP, then a Diameter problem may exist that is causing excessive Long Timeout traffic to be delivered to the MP. Looking at these measurements on a time of day basis may provide additional insight into potential network problems.
2. If the peak and average for an individual MP is significantly different than other MPs in the same Network Element then an MP-specific software problem may exist (e.g., a buffer pool leak).
3. If the problem persists, it is recommended to contact [#unique_131](#).

3.51.2 EvLongTimeoutPtrPoolPeak

Measurement ID

10294

Measurement Group

MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak Diameter Long Timeout PTR Buffer Pool utilization (0-100%) measured during the collection interval.

A Long Timeout PTR is allocated for each Request message with a Pending Answer Timer value greater than 10 seconds that is forwarded to an upstream peer and is de-allocated when an Answer response is received and routed to a downstream peer.

This measurement is useful for evaluating whether excessive traffic levels are being assigned to the Long Timeout pool. Assignment of traffic to this pool should be limited to Requests that are expected to have long response times.

Collection Interval

5 min

Peg Condition

The maximum Diameter Long Timeout PTR Buffer Pool utilization sample taken during the collection interval.

Measurement Scope

Server Group

Recovery

1. If both the peak and average measurements for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an MP, then a Diameter problem may exist that is causing excessive Long Timeout traffic to be delivered to the MP. Looking at these measurements on a time of day basis may provide additional insight into potential network problems.
2. If the peak and average for an individual MP is significantly different than other MPs in the same Network Element then an MP-specific software problem may exist (e.g., a buffer pool leak).
3. If the problem persists, it is recommended to contact [#unique_131](#).

3.51.3 EvPtrListAvg

Measurement ID

10211

Measurement Group

MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average **Diameter** PTR Buffer Pool utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

The average of all Diameter PTR Buffer Pool utilization samples taken during the collection interval.

Measurement Scope

Server Group

Recovery

1. If both the peak and average measurements for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an **MP** when the ingress message rate and/or Diameter process CPU utilization measurements are below the recommended maximum engineered capacity of an MP, then a network (IP or

Diameter) problem may exist. Looking at these measurements on a time of day basis may provide additional insight into potential network problems.

2. If the peak and average for an individual **MP** is significantly different than other MPs in the same Network Element then an MP-specific software problem may exist (e.g., a buffer pool leak).
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.51.4 EvPtrListPeak

Measurement ID

10210

Measurement Group

MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak Diameter PTR Buffer Pool utilization (0-100%) measured during the collection interval.

A PTR is allocated for each Request message that is forwarded to an upstream peer and is de-allocated when an Answer response is received and routed to a downstream peer. This measurement is useful for evaluating whether persistent network or upstream server problems exist. In general, PTR buffers are engineered to match the processing capacity of the MP. If network or upstream server problems exist, delaying pending transactions in the MP, then PTRs (and associated messages/PDUs) will sit in internal Diameter queues.

Collection Interval

5 min

Peg Condition

The maximum Diameter PTR Buffer Pool utilization sample taken during the collection interval.

Measurement Scope

Server Group

Recovery

1. If both the peak and average measurements for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an **MP** when the ingress message rate and/or Diameter process CPU utilization measurements are below the recommended maximum engineered capacity of an MP, then a network (IP or Diameter) problem may exist. Looking at these measurements on a time of day basis may provide additional insight into potential network problems.
2. If the peak and average for an individual **MP** is significantly different than other MPs in the same Network Element then an MP-specific software problem may exist (e.g., a buffer pool leak).

3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.51.5 MpEvRadiusRoutedMsgs

Measurement ID

14074

Measurement Group

MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress RADIUS messages processed by DRL, including Rerouting and Message Copy.

Collection Interval

5 min

Peg Condition

This measurement should be incremented as per the following conditions.

- Ingress RADIUS Request processing resulting in a Request being routed upstream (with or without local DSR application processing of the Request)
- Ingress RADIUS Response processing resulting in forwarding of Answer/Response downstream (with or without local DSR application processing of the Response)
- Ingress Request processing resulting in Answer message sent by DSR to originator (with or without local DSR application processing of the Request)
- Ingress RADIUS Request discarded due to validation error or overload
- Ingress RADIUS Response discarded due to validation error
- Initial copy and transmit of a RADIUS Request to a DAS
- Ingress RADIUS Response triggering reroute of the pending Request message (including Answers from DAS for copied RADIUS Requests)
- RADIUS Request reroute due to connection failure or Answer/Response timeout (including reroute of copied Requests to DAS for same reasons)
- Ingress Answer from a DAS terminated by DSR due to RADIUS Request copy completion or termination

**Note:**

This is the functional equivalent to [RoutingMsgs](#) but for ingress RADIUS (only) messages. Measurement [RoutingMsgs](#) measures all ingress equivalent messages (Diameter and RADIUS).

Measurement Scope

Network

Recovery

- No action required.

3.51.6 RxAnswerMsgQueueAvg

Measurement ID

10215

Measurement Group

MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average Answer Message Queue utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

The average of all Answer Message Queue utilization samples taken during the collection interval.

Measurement Scope

Server Group

Recovery

1. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an **MP** over several collection intervals, then the number of MPs in the Network Element may need to be increased.
2. If the peak and average for an individual **MP** is significantly different than other MPs in the same Network Element then an MP-specific hardware, software, or configuration problem may exist or a Diameter peer and/or DNS routing mis-configuration problem may exist.
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.51.7 RxAnswerMsgQueuePeak

Measurement ID

10214

Measurement Group

MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak Answer Message Queue utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

The maximum Answer Message Queue utilization sample taken during the collection interval.

Measurement Scope

Server Group

Recovery

1. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an **MP** over several collection intervals, then the number of MPs in the Network Element may need to be increased.
2. If the peak and average for an individual **MP** is significantly different than other MPs in the same Network Element then an MP-specific hardware, software, or configuration problem may exist or a Diameter peer and/or DNS routing mis-configuration problem may exist.
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.51.8 RxRequestMsgQueueAvg

Measurement ID

10213

Measurement Group

MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average Request Message Queue utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

The average of all Request Message Queue utilization samples taken during the collection interval.

Measurement Scope

Server Group

Recovery

1. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an **MP** over several collection intervals, then the number of MPs in the Network Element may need to be increased.
2. If the peak and average for an individual **MP** is significantly different than other MPs in the same Network Element then an MP-specific hardware, software, or configuration problem may exist or a Diameter peer and/or DNS routing mis-configuration problem may exist.
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.51.9 RxRequestMsgQueuePeak

Measurement ID

10212

Measurement Group

MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak Request Message Queue utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

The maximum Request Message Queue utilization sample taken during the collection interval.

Measurement Scope

Server Group

Recovery

1. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an **MP** over several collection intervals, then the number of MPs in the Network Element may need to be increased.
2. If the peak and average for an individual **MP** is significantly different than other MPs in the same Network Element then an MP-specific hardware, software, or

configuration problem may exist or a Diameter peer and/or DNS routing mis-configuration problem may exist.

3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.51.10 TxRerouteQueueAvg

Measurement ID

10219

Measurement Group

MP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average Reroute Queue utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

The average of all Reroute Queue utilization samples taken during the collection interval.

Measurement Scope

Server Group

Recovery

1. An excessive amount of Request message rerouting may have been triggered by either connection failures or Answer timeouts. The status of connections should be examined from the **Diameter**, and then **Maintenance**, and then **Connections** page.
2. If no additional congestion alarms are asserted, the routing answer task may be experiencing a problem, preventing it from processing messages from its Reroute Queue. The alarm log should be examined using the **Alarms & Events** page.
3. If the problem persists, it is recommended to contact [#unique_131](#).

3.51.11 TxRerouteQueuePeak

Measurement ID

10218

Measurement Group

MP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak Reroute Queue utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

The maximum Reroute Queue utilization sample taken during the collection interval.

Measurement Scope

Server Group

Recovery

1. An excessive amount of Request message rerouting may have been triggered by either connection failures or Answer timeouts. The status of connections should be examined from the **Diameter**, and then **Maintenance**, and then **Connections** page.
2. If no additional congestion alarms are asserted, the routing answer task may be experiencing a problem, preventing it from processing messages from its Reroute Queue. The alarm log should be examined using the **Alarms & Events** page.
3. If the problem persists, it is recommended to contact [#unique_131](#).

3.52 OAM.ALARM measurements

Table 3-4 OAM Alarm Measurements

Measurement Tag	Description	Collection Interval
Alarm.Crit	The number of critical alarms.	5 minutes
Alarm.Major	The number of major alarms.	5 minutes
Alarm.Minor	The number of minor alarms	5 minutes
Alarm.State	The alarm state.	5 minutes

3.53 OAM.SYSTEM measurements

Table 3-5 OAM System Measurements

Measurement Tag	Description	Collection Interval
System.CPU_UtilPct_Average	The average CPU usage from 0 to 100% (100% indicates that all cores are completely busy).	5 minutes
System.CPU_UtilPct_Peak	The peak CPU usage from 0 to 100% (100% indicates that all cores are completely busy).	5 minutes
System.Disk_UtilPct_Average	The average disk usage for the partition on which the COMCOL database resides.	5 minutes
System.Disk_UtilPct_Peak	The peak disk usage for the partition on which the COMCOL database resides.	5 minutes

Table 3-5 (Cont.) OAM System Measurements

Measurement Tag	Description	Collection Interval
System.RAM_UtilPct_Average	The average committed RAM usage as a percentage of the total physical RAM. This measurement is based on the Committed_AS measurement from Linux/proc/meminfo. This measurement can exceed 100% if the kernel has committed more resources than provided by physical RAM, in which case, swapping will occur.	5 minutes
System.RAM_UtilPct_Peak	The peak committed RAM usage as a percentage of the total physical RAM. This measurement is based on the Committed_AS measurement from Linux/proc/meminfo. This measurement can exceed 100% if the kernel has committed more resources than provided by physical RAM, in which case, swapping will occur.	5 minutes
System.ShMem_UtilPct_Average	The average shared memory usage as a percentage of the limit configured by shl.set.	5 minutes
System.ShMem_UtilPct_Peak	The peak shared memory usage as a percentage of the limit configured by shl.set.	5 minutes
System.SwapIn_Rate_Average	The average number of memory pages swapped in to memory from disk per second.	5 minutes
System.SwapIn_Rate_Peak	The peak number of memory pages swapped in to memory from disk per second.	5 minutes
System.SwapOut_Rate_Average	The average number of memory pages swapped out of memory from disk per second.	5 minutes
System.SwapOut_Rate_Peak	The peak number of memory pages swapped out of memory from disk per second.	5 minutes
System.Swap_UtilPct_Average	The average usage of swap space as a percentage of the total configured swap space.	5 minutes
System.Swap_UtilPct_Peak	The peak usage of swap space as a percentage of the total configured swap space.	5 minutes
System.CPU_CoreUtilPct_Average	The average CPU usage for each core. On an eight-core system, there will be eight sub-metrics showing the utilization of each core.	5 minutes
System.CPU_CoreUtilPct_Peak	The peak CPU usage for each core. On an eight-core system, there will be eight sub-metrics showing the utilization of each core.	5 minutes

3.54 OC-DRA Diameter Usage measurements

The **OC-DRA** Diameter Usage measurement report contains measurements that provide performance information that is specific to the OC-DRA Diameter protocol.

3.54.1 RxOcdraMsgRateAvg

Measurement ID

11364

Measurement Group

OC-DRA Diameter Usage

Measurement Type

Average

Measurement Dimension

Single

Description

Average OC-DRA Ingress Message Processing Rate

Collection Interval

5 min

Peg Condition

The average of all OC-DRA Ingress Message Rate KPI samples taken during the collection interval.

Measurement Scope

All

Recovery

1. Display and monitor the DSR Application message rate by selecting **Diameter**, and then **Maintenance**, and then **Applications**. Verify that the message rate is set as expected.
2. Application Routing might be mis-configured and is sending too much traffic to the DSR Application. Verify the configuration by selecting **Diameter**, and then **Configuration**, and then **Application Routing Rules**.
3. There might be an insufficient number of MPs configured to handle the network load. Monitor the traffic rate of each **MP** by selecting **Diameter**, and then **Status & Manage**, and then **KPIs**.

If MPs are in a congestion state, then the offered load to the server site is exceeding its capacity.

4. If the problem persists, it is recommended to contact [#unique_131](#).

3.54.2 RxOcdraMsgRatePeak

Measurement ID

11365

Measurement Group

OC-DRA Diameter Usage

Measurement Type

Max

Measurement Dimension

Single

Description

Peak OC-DRA Ingress Message Processing Rate

Collection Interval

5 min

Peg Condition

The maximum of all OC-DRA Ingress Message Rate KPI samples taken during the collection interval.

Measurement Scope

All

Recovery

1. Display and monitor the DSR Application message rate by selecting **Diameter**, and then **Maintenance**, and then **Applications**. Verify that the message rate is set as expected.
2. Application Routing might be mis-configured and is sending too much traffic to the DSR Application. Verify the configuration by selecting **Diameter**, and then **Configuration**, and then **Application Routing Rules**.
3. There might be an insufficient number of MPs configured to handle the network load. Monitor the traffic rate of each **MP** by selecting **Diameter**, and then **Status & Manage**, and then **KPIs**.

If MPs are in a congestion state, then the offered load to the server site is exceeding its capacity.
4. If the problem persists, it is recommended to contact [#unique_131](#).

3.54.3 RxGyRoMsgsReceivedPerCmd

Measurement ID

11366

Measurement Group

OC-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Message Command Abbreviation i.e. CCR-I/U/T/E, CCA-I/U/T/E, RAR, RAA, UNK-REQ, UNK-ANS and "Total")

Description

The number of Gy/Ro Diameter Credit Control Application messages (including requests and answers) received by OC-DRA.

Collection Interval

5 min

Peg Condition

Each time OC-DRA received a Gy/Ro Diameter Credit Control Application message (i.e. CCR/CCA and RAR/RAA) for Online Charging message processing. This measurement is the summation of measurements [RxGyRoReqRelayedPerCmd](#) and [RxGyRoReqFailedToRelayPerCmd](#) for Diameter Requests. This measurement is the summation of measurements [RxGyRoReqRelayedPerCmd](#) and [RxGyRoAnsDiscardedDrQueueFullPerCmd](#).

 **Note:**

Due to the timing of when measurements are incremented and collected during a collection interval, this measurement may not be the exact sum of the measurements listed above.

 **Note:**

This measurement is pegged twice, once for the Diameter message command abbreviation and once for "Total".

Measurement Scope

All

Recovery

- No action required.

3.54.4 RxGyRoReqRelayedPerCmd

Measurement ID

11368

Measurement Group

OC-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Message Command Abbreviation i.e. CCR-I/U/T/E, RAR, UNK-REQ and "Total")

Description

The number of Gy/Ro Diameter Credit Control Application Request messages successfully relayed by OC-DRA.

Collection Interval

5 min

Peg Condition

Each time OC-DRA receives an Answer response (from the Peer) to a Gy/Ro Diameter Credit Control Application Request message successfully en-queued on DRL's Request Queue for Request message routing. This measurement is the summation of measurements [RxGyRoAns2xxxFromPeerPerCmd](#) and [RxGyRoAnsNon2xxxFromPeerPerCmd](#).

 **Note:**

Due to the timing of when measurements are incremented and collected during a collection interval, this measurement may not be the exact sum of the measurements listed above.

 **Note:**

This measurement is pegged twice, once for the Diameter message command abbreviation and once for "Total".

 **Note:**

This measurement is not pegged when OC-DRA receives a locally generated Answer response due to DRL unsuccessfully relaying the request to a peer (e.g. an unavailable peer or invalid route specifications).

Measurement Scope

All

Recovery

- No action required.

3.54.5 RxGyRoAnsRelayedPerCmd

Measurement ID

11369

Measurement Group

OC-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Message Command Abbreviation i.e. CCR-I/U/T/E, RAR, UNK-REQ and "Total")

Description

The number of Gy/Ro Diameter Credit Control Application Answer messages successfully relayed by OC-DRA.

Collection Interval

5 min

Peg Condition

Each time OC-DRA receives a Gy/Ro Diameter Credit Control Application Answer message and successfully en-queues it onto DRL's Answer Queue for Answer message routing.



Note:

This measurement is pegged twice, once for the Diameter message command abbreviation and once for "Total".

Measurement Scope

All

Recovery

- No action required.

3.54.6 RxGyRoAns2xxxFromPeerPerCmd

Measurement ID

11370

Measurement Group

OC-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Message Command Abbreviation i.e. CCR-I/U/T/E, RAR, UNK-REQ and "Total")

Description

The number of Gy/Ro Diameter Credit Control Application Request messages successfully relayed by OC-DRA that received Answers from the peer with a 2xxx (Success) Result-Code value.

Collection Interval

5 min

Peg Condition

Each time OC-DRA receives an Answer from the peer with a successful Result-Code AVP (one containing a value in the range of 2000 – 2999).

 **Note:**

This measurement is pegged twice, once for the Diameter message command abbreviation and once for "Total".

Measurement Scope

All

Recovery

- No action required.

3.54.7 TmGyRoSessionDuration

Measurement ID

11427

Measurement Group

OC-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Histogram of normally terminated Gy/Ro session durations.

Collection Interval

5 min

Peg Condition

When a Gy/Ro session record is removed, the appropriate histogram instance shall be incremented by 1.

 **Note:**

Binding-independent session records are stored only if session state applies to the session.

Measurement Scope

Network, Place Association, Resource Domain

Recovery

- This measurement shows a histogram of Gy/Ro session lifetimes, providing information to assist in predicting the duration of a session SBR Database Reconfiguration.

 **Note:**

This measurement applies only to sessions for which session state is being maintained. Online Charging DRA does not maintain Gy/Ro session state unless Session State applies to the session.

Histogram measurements consist of 101 array entries:

- 0 – Overflow. Incremented if duration is greater than 9,830 minutes.
- 1-5 – 1 minute buckets. Incremented for durations between 0 and 5 minutes.
- 6-10 – 5 minute buckets. Incremented for durations between 0 and 30 minutes.
- 11-15 – 10 minute buckets. Incremented for durations between 30 and 80 minutes.
- 16-20 – 30 minute buckets. Incremented for durations between 80 and 230 minutes.
- 21-100 – 120 minute buckets. Incremented for durations between 230 and 9,830 minutes.

A session SBR Database Reconfiguration cannot complete normally until all session records for all supported Diameter interfaces have migrated. As a result, the session duration histogram for each interface being used must be examined to determine which interface has the highest average session duration. This value can be used to predict the likely duration of the reconfiguration.

3.54.8 TmGyRoSessionRefresh

Measurement ID

11433

Measurement Group

OC-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Histogram of Gy/Ro session refresh durations.

Collection Interval

5 min

Peg Condition

When a Gy/Ro session record is refreshed, the appropriate histogram instance shall be incremented by 1. Gy/Ro sessions are refreshed during CCR-U and RAR processing.

Measurement Scope

Network, Place Association, Resource Domain

Recovery

- This measurement shows a histogram of Gy/Ro session refresh durations, providing information to assist in setting the Stale Session Timeout for APNs that use this interface. If the Stale Session Timeout for an APN using the Gy/Ro interface is set too short, the session audit will remove the session prematurely, possibly causing signaling failures for subsequent in-session request processing needing topology hiding translations.

 **Note:**

This measurement applies only sessions for which session state is being maintained. Online Charging DRA does not maintain Gy/Ro session state unless Session State applies to the session.

Histogram measurements consist of 101 array entries:

- 0 – Overflow. Incremented if duration is greater than 9,830 minutes.
- 1-5 – 1 minute buckets. Incremented for durations between 0 and 5 minutes.
- 6-10 – 5 minute buckets. Incremented for durations between 0 and 30 minutes.
- 11-15 – 10 minute buckets. Incremented for durations between 30 and 80 minutes.
- 16-20 – 30 minute buckets. Incremented for durations between 80 and 230 minutes.
- 21-100 – 120 minute buckets. Incremented for durations between 230 and 9,830 minutes.

3.55 OC-DRA Diameter Exception measurements

The **OC-DRA** Diameter Exception measurement report contains measurements that provide performance information that is specific to the OC-DRA Diameter protocol.

3.55.1 RxPcaTransactionsRejected

Measurement ID

11317

Measurement Group

P-DRA Diameter Exception, OC-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of transactions rejected by Policy and Charging DSR Application.

Collection Interval

5 min

Peg Condition

Each time the Policy and Charging Application (PCA) initiates an Answer response with a non-successful Result-Code (one containing a non-2xxx value) or discards an ingress Request message for any of the following reasons:

- OC-DRA is Unavailable or Disabled
- Diameter Protocol Error Detected
- OC-DRA specific errors due to absence of mandatory Diameter Credit Control Application AVP(s) used for routing
- Diameter Request discarded during Congestion
- Diameter Message Routing failure due to DRL's Request Queue Full
- Communication Agent Error (i.e., Queue Full)
- Unexpected SBR Error
- Online Charging Session not found when required for routing

**Note:**

This measurement is only pegged once for an ingress Request message.

Measurement Scope

Server Group

Recovery

1. This measurement gives an indication if any Gy/Ro Diameter Credit Control Application Request messages were NOT successfully relayed by OC-DRA. OC-DRA can fail to relay Gy/Ro Diameter Credit Control Application Request messages for various reasons as stated above for "Peg Condition".
2. This measurement is the summation of the following measurements which should be inspected within the same collection interval to further determine the specific cause of failure:
 - [TxGyRoAnsGenByOcdraPerCmd](#)
 - [TxGyRoAnsGenByDrlPerCmd](#)
 - [RxGyRoReqDiscardedCongestionPerCmd](#)

**Note:**

Due to the timing of when measurements are incremented and collected during a collection interval, this measurement may not be the exact sum of the measurements listed above.

3.55.2 RxGyRoReqFailedToRelayPerCmd

Measurement ID

11395

Measurement Group

OC-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Request Command Abbreviation, i.e., CCR-I/U/T/E, RAR, UNK-REQ and "Total")

Description

The number of Gy/Ro Diameter Credit Control Application Request messages OC-DRA failed to relay.

Collection Interval

5 min

Peg Condition

Each time the Policy and Charging DSR Application (PCA) initiates an Answer response with a non-successful Result-Code (one containing a non-2xxx value) or discards an ingress Request message for any of the following reasons:

- OC-DRA functionality is Unavailable or Disabled
- Diameter Protocol Error Detected
- OC-DRA specific errors due to absence of mandatory Diameter Credit Control Application AVP(s) used for routing
- Diameter Request discarded during Congestion
- Diameter Message Routing failure due to DRL's Request Queue Full
- Communication Agent Error (i.e., Queue Full)
- Unexpected SBR Error
- Online Charging Session not found when required for routing
- Diameter Routing Layer failed to relay the Diameter Request (e.g., an unavailable peer or invalid route specification)

**Note:**

This measurement is only pegged once for an ingress Request message.

Measurement Scope

Server Group

Recovery

1. This measurement gives an indication if any Gy/Ro Diameter Credit Control Application Request messages were NOT successfully relayed by OC-DRA. OC-DRA can fail to

relay Gy/Ro Diameter Credit Control Application Request messages for various reasons as stated above for “Peg Condition”.

2. This measurement is the summation of the following measurements which should be inspected within the same collection interval to further determine the specific cause of failure:
 - [TxGyRoAnsGenByOcdraPerCmd](#)
 - [TxGyRoAnsGenByDrlPerCmd](#)
 - [RxGyRoReqDiscardedCongestionPerCmd](#)

 **Note:**

Due to the timing of when measurements are incremented and collected during a collection interval, this measurement may not be the exact sum of the measurements listed above.

3.55.3 RxGyRoAnsNon2xxxFromPeerPerCmd

Measurement ID

11396

Measurement Group

OC-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Request Command Abbreviation i.e. CCR-I/U/T/E, RAR and “Total”)

Description

The number of Gy/Ro Diameter Credit Control Application Request messages successfully relayed by OC-DRA that received an Answer from the peer with a non-2xxx (Non-successful) Result-Code value.

Collection Interval

5 min

Peg Condition

Each time OC-DRA receives an Answer from the peer with a non-successful Result-Code AVP (one containing a value that is not in the range of 2000 – 2999).

 **Note:**

This measurement is pegged twice, once for the Diameter message command abbreviation and once for “Total”.

Measurement Scope

All

Recovery

- No action required.

3.55.4 RxGyRoAnsDiscardedDrlQueueFullPerCmd

Measurement ID

11398

Measurement Group

OC-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Request Command Abbreviation i.e. CCR-I/U/T/E, RAR, UNK-REQ, and "Total")

Description

The number of Gy/Ro Diameter Credit Control Application Answer messages discarded by OC-DRA due to DRL's Answer queue being full.

Collection Interval

5 min

Peg Condition

Each time a Gy/Ro based Diameter Credit Control Application Answer message is discarded after OC-DRA failed to en-queue it on to DRL's Answer queue for routing due to it being full.

**Note:**

This measurement is pegged twice, once for the Diameter message command abbreviation and once for "Total."

Measurement Scope

All

Recovery

1. This measurement indicates that overall DA-MP congestion is occurring and the need for additional processing capacity at the PCA DA-MP.
2. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an MP over several collection intervals, then the number of MPs in the Network Element may need to be increased.
3. If the peak and average for an individual MP is significantly different than other MPs in the same Network Element then an MP-specific hardware, software, or configuration problem may exist or a Diameter peer and/or DNS routing mis-configuration problem may exist.
4. It is recommended to contact [#unique_131](#) for assistance if needed.

3.55.5 TxGyRoAnsGenByDrlPerCmd

Measurement ID

11400

Measurement Group

OC-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Request Command Abbreviation i.e. CCR-I/U/T/E, RAR, UNK-REQ, and "Total")

Description

The number of Gy/Ro Diameter Credit Control Application Answer messages received by OC-DRA that were generated by DRL.

Collection Interval

5 min

Peg Condition

Each time OC-DRA receives a Gy/Ro Diameter Credit Control Application Request message that was generated by DRL as a result of encountering a routing failure or an operator instruction (e.g., PRT rule) which requires abandoning transaction routing and sending an Answer response.

**Note:**

This measurement is pegged twice, once for the Diameter message command abbreviation and once for "Total."

Measurement Scope

All

Recovery

- No action required.

3.55.6 TxGyRoAnsGenByOcdraPerCmd

Measurement ID

11401

Measurement Group

OC-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (i.e. CCR-I/U/T/E, RAR, UNK-REQ, and "Total")

Description

The number of Diameter Answer messages generated by OC-DRA after encountering a failure and abandoning processing of Gy/Ro Diameter Credit Control Application Request messages.

Collection Interval

5 min

Peg Condition

Each time OC-DRA abandons the processing of a Gy/Ro Diameter Credit Control Application Request message due to a failure and generates an Answer response. Processing failures include the following:

- OC-DRA is Unavailable or Disabled
- Diameter Protocol Error Detected
- OC-DRA specific errors due to absence of mandatory Diameter Credit Control Application AVP(s) used for routing
- Diameter Message Routing failure due to DRL's Request Queue Full
- Communication Agent Error (i.e., Queue Full)
- Unexpected SBR Error
- Online Charging Session not found when required for routing

**Note:**

This measurement is only pegged once for an ingress Request message.

Measurement Scope

All

Recovery

- This measurement gives an indication of OC-DRA abandoning the processing of Gy/Ro Diameter Credit Control Application Request messages and generating Answer responses due to the various reasons stated in "Peg Condition". To determine the specific cause of failure, inspect [TxGyRoAnsGenPerErrCode](#) that is pegged in the same collection interval and follow its Customer Action.

3.55.7 TxGyRoAnsGenPerErrCode

Measurement ID

11402

Measurement Group

OC-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by 3-digit error code defined in [Policy DRA Error Resolution Procedures](#) and "Total")

Description

The number of Gy/Ro Diameter Credit Control Application Request messages that OC-DRA abandoned processing due to a failure and generated an Answer response.

Collection Interval

5 min

Peg Condition

Each time OC-DRA abandons the processing of Gy/Ro Diameter Credit Control Application request message due to a failure and generates an Answer response. Processing failures include the following:

- OC-DRA is Unavailable or Disabled
- Diameter Protocol Error Detected
- OC-DRA specific errors due to absence of mandatory Diameter Credit Control Application AVP(s) used for routing
- Diameter Message Routing failure due to DRL's Request Queue Full
- Communication Agent Error (i.e., Queue Full)
- Unexpected SBR Error
- Online Charging Session not found when required for routing

**Note:**

This measurement is only pegged once for an ingress Request message.

Measurement Scope

All

Recovery

1. This measurement represents an exception condition in which Gy/Ro Diameter Credit Control Application Request messages are being received and rejected due to the various reasons stated in "Peg Condition". A Diameter Answer response including an Error-Message AVP is generated for each Diameter Request message that is rejected.
2. This measurement shows the distribution of Gy/Ro Diameter Credit Control Application Request messages that OC-DRA generated a Diameter Answer with error response across the range of 3-digit error codes defined in [Policy DRA Error Resolution Procedures](#) to determine the specific cause of failure and resolution using the 3-digit error codes.

3.55.8 TxGyRoCcrInitAnsGenPerErrCode

Measurement ID

11403

Measurement Group

OC-DRA Diameter Exception

Measurement Type

Simple

Measurement DimensionArrayed (by 3-digit error code defined in [Policy DRA Error Resolution Procedures](#))**Description**

The number of Gy/Ro Credit-Control-Request messages with the CC-Request-Type AVP set to INITIAL_REQUEST (CCR-I) that OC-DRA abandoned processing due to a failure and generated an Answer response.

Collection Interval

5 min

Peg Condition

Each time OC-DRA abandons the processing of a Gy/Ro Credit-Control-Request message with the CC-Request-Type AVP set to INITIAL_REQUEST (CCR-I) due to a failure and generates an Answer response Processing failures include the following:

- OC-DRA is Unavailable or Disabled
- Diameter Protocol Error Detected
- OC-DRA specific errors due to absence of mandatory Diameter Credit Control Application AVP(s) used for routing
- Diameter Message Routing failure due to DRL's Request Queue Full
- Communication Agent Error (i.e., Queue Full)
- Unexpected SBR Error
- Online Charging Session not found when required for routing

Measurement Scope

All

Recovery

1. This measurement represents an exception condition in which Gy/Ro Diameter Credit-Control-Request messages with the CC-Request-Type AVP set to INITIAL_REQUEST (CCR-I) are being received and rejected due to the various reasons stated above for "Peg Condition". A Diameter Answer response including an Error-Message AVP is generated for each Diameter Request message that is rejected.
2. This measurement shows the distribution of Gy/Ro Diameter CCR-I messages that OC-DRA generated a Diameter Answer with error response across the range of 3-digit error codes defined in [Policy DRA Error Resolution Procedures](#) to determine the specific cause of failure and resolution using the 3-digit error codes.

3.55.9 TxGyRoCcrUpdateAnsGenPerErrCode

Measurement ID

11404

Measurement Group

OC-DRA Diameter Exception

Measurement Type

Simple

Measurement DimensionArrayed (by 3-digit error code defined in [Policy DRA Error Resolution Procedures](#))**Description**

The number of Gy/Ro Credit-Control-Request messages with the CC-Request-Type AVP set to UPDATE_REQUEST (CCR-U) that OC-DRA abandoned processing due to a failure and generated an Answer response.

Collection Interval

5 min

Peg Condition

Each time OC-DRA abandons the processing of a Gy/Ro Credit-Control-Request message with the CC-Request-Type AVP set to UPDATE_REQUEST (CCR-U) due to a failure and generates an Answer response. Processing failures include the following:

- OC-DRA is Unavailable or Disabled
- Diameter Protocol Error Detected
- OC-DRA specific errors due to absence of mandatory Diameter Credit Control Application AVP(s) used for routing
- Diameter Message Routing failure due to DRL's Request Queue Full
- Communication Agent Error (i.e., Queue Full)
- Unexpected SBR Error
- Online Charging Session not found when required for routing

Measurement Scope

All

Recovery

1. This measurement represents an exception condition in which Gy/Ro Diameter Credit-Control-Request messages with the CC-Request-Type AVP set to UPDATE_REQUEST (CCR-U) are being received and rejected due to the various reasons stated in "Peg Condition". A Diameter Answer response including an Error-Message AVP is generated for each Diameter Request message that is rejected.
2. This measurement shows the distribution of Gy/Ro Diameter CCR-U messages that OC-DRA generated a Diameter Answer with error response across the range of 3-digit error codes defined in [Policy DRA Error Resolution Procedures](#) to determine the specific cause of failure and resolution using the 3-digit error codes.

3.55.10 TxGyRoCcrTermAnsGenPerErrCode

Measurement ID

11405

Measurement Group

OC-DRA Diameter Exception

Measurement Type

Simple

Measurement DimensionArrayed (by 3-digit error code defined in [Policy DRA Error Resolution Procedures](#))**Description**

The number of Gy/Ro Credit-Control-Request messages with the CC-Request-Type AVP set to TERMINATION_REQUEST (CCR-T) that OC-DRA abandoned processing due to a failure and generated an Answer response.

Collection Interval

5 min

Peg Condition

Each time OC-DRA abandons the processing of a Gy/Ro Credit-Control-Request message with the CC-Request-Type AVP set to TERMINATION_REQUEST (CCR-T) due to a failure and generates an Answer response. Processing failures include the following:

- OC-DRA is Unavailable or Disabled
- Diameter Protocol Error Detected
- OC-DRA specific errors due to absence of mandatory Diameter Credit Control Application AVP(s) used for routing
- Diameter Message Routing failure due to DRL's Request Queue Full
- Communication Agent Error (i.e., Queue Full)
- Unexpected SBR Error
- Online Charging Session not found when required for routing

Measurement Scope

All

Recovery

1. This measurement represents an exception condition in which Gy/Ro Diameter Credit-Control-Request messages with the CC-Request-Type AVP set to TERMINATION_REQUEST (CCR-T) are being received and rejected due to the various reasons stated in "Peg Condition". A Diameter Answer response including an Error-Message AVP is generated for each Diameter Request message that is rejected.
2. This measurement shows the distribution of Gy/Ro Diameter CCR-U messages that OC-DRA generated a Diameter Answer with error response across the range of 3-digit error codes defined in [Policy DRA Error Resolution Procedures](#) to determine the specific cause of failure and resolution using the 3-digit error codes.

3.55.11 TxGyRoCcrEventAnsGenPerErrCode

Measurement ID

11406

Measurement Group

OC-DRA Diameter Exception

Measurement Type

Simple

Measurement DimensionArrayed (by 3-digit error code defined in [Policy DRA Error Resolution Procedures](#))**Description**

The number of Gy/Ro Credit-Control-Request messages with the CC-Request-Type AVP set to EVENT_REQUEST (CCR-E) that OC-DRA abandoned processing due to a failure and generated an Answer response.

Collection Interval

5 min

Peg Condition

Each time OC-DRA abandons the processing of a Gy/Ro Credit-Control-Request message with the CC-Request-Type AVP set to EVENT_REQUEST (CCR-E) due to a failure and generates an Answer response. Processing failures include the following:

- OC-DRA is Unavailable or Disabled
- Diameter Protocol Error Detected
- OC-DRA specific errors due to absence of mandatory Diameter Credit Control Application AVP(s) used for routing
- Diameter Message Routing failure due to DRL's Request Queue Full
- Communication Agent Error (i.e., Queue Full)
- Unexpected SBR Error

Measurement Scope

All

Recovery

1. This measurement represents an exception condition in which Gy/Ro Diameter Credit-Control-Request messages with the CC-Request-Type AVP set to EVENT_REQUEST (CCR-E) are being received and rejected due to the various reasons stated in "Peg Condition". A Diameter Answer response including an Error-Message AVP is generated for each Diameter Request message that is rejected.
2. This measurement shows the distribution of Gy/Ro Diameter CCR-E messages that OC-DRA generated a Diameter Answer with error response across the range of 3-digit error codes defined in [Policy DRA Error Resolution Procedures](#) to determine the specific cause of failure and resolution using the 3-digit error codes.

3.55.12 TxGyRoRarAnsGenPerErrCode

Measurement ID

11407

Measurement Group

OC-DRA Diameter Exception

Measurement Type

Simple

Measurement DimensionArrayed (by 3-digit error code defined in [Policy DRA Error Resolution Procedures](#))**Description**

The number of Gy/Ro Re-Auth-Request (RAR) messages that OC-DRA abandoned processing due to a failure and generated an Answer response.

Collection Interval

5 min

Peg Condition

Each time OC-DRA abandons the processing of a Gy/Ro Re-Auth-Request (RAR) message due to a failure and generates an Error Answer response. Processing failures include the following:

- OC-DRA is Unavailable or Disabled
- Diameter Protocol Error Detected
- OC-DRA specific errors due to absence of mandatory Diameter Credit Control Application AVP(s) used for routing
- Diameter Message Routing failure due to DRL's Request Queue Full
- Communication Agent Error (i.e., Queue Full)
- Unexpected SBR Error
- Online Charging Session not found when required for routing

Measurement Scope

All

Recovery

- 1.
2. This measurement represents an exception condition in which Gy/Ro Diameter Re-Auth-Request (RAR) messages are being received and rejected due to the various reasons stated in "Peg Condition". A Diameter Answer response including an Error-Message AVP is generated for each Diameter Request message that is rejected.
3. This measurement shows the distribution of Gy/Ro Diameter RAR messages that OC-DRA generated a Diameter Answer with error response across the range of 3-digit error codes defined in [Policy DRA Error Resolution Procedures](#) to determine the specific cause of failure and resolution using the 3-digit error codes.

3.55.13 TxGyRoUnkCmdAnsGenPerErrCode

Measurement ID

11408

Measurement Group

OC-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by 3-digit error code defined in [Policy DRA Error Resolution Procedures](#))

Description

The number of unsupported Diameter Request messages that OC-DRA abandoned processing due to a failure and generated an Answer response.

Collection Interval

5 min

Peg Condition

Each time OC-DRA abandons the processing of an unsupported Request message due to a failure and generates an Error Answer response. Processing failures include the following:

- OC-DRA is Unavailable or Disabled
- Diameter Protocol Error Detected
- OC-DRA specific errors due to absence of mandatory Diameter Credit Control Application AVP(s) used for routing
- Diameter Message Routing failure due to DRL's Request Queue Full

Measurement Scope

All

Recovery

1. This measurement represents an exception condition in which an unknown Diameter Request messages are being received and rejected due to the various reasons stated in "Peg Condition". A Diameter Answer response including an Error-Message AVP is generated for each Diameter Request message that is rejected.
2. This measurement shows the distribution of unknown Diameter messages that OC-DRA generated a Diameter Answer with error response across the range of 3-digit error codes defined in [Policy DRA Error Resolution Procedures](#) to determine the specific cause of failure and resolution using the 3-digit error codes.

3.55.14 TxPcaAnsGenPerErrCode

Measurement ID

11409

Measurement Group

OC-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by 3-digit error code defined in [Policy DRA Error Resolution Procedures](#) and "Total")

Description

The number of Diameter Request messages that PCA abandoned processing due to a failure and generated an Answer response.

Collection Interval

5 min

Peg Condition

Each time PCA abandons the processing of a Request message due to a failure and generates an Error Answer response. Processing failures include the following:

- A PCA function is Unavailable or Disabled
- Diameter Protocol Error Detected



Note:

This measurement is pegged twice, once for the 3-digit error code and once for "Total."

Measurement Scope

All

Recovery

1. This measurement represents an exception condition in which Diameter Request messages are being received and rejected due to the various reasons stated in "Peg Condition". A Diameter Answer response including an Error-Message AVP is generated for each Diameter Request message that is rejected.
2. This measurement shows the distribution of Diameter Request messages that PCA generated a Diameter Answer with error response across the range of 3-digit error codes defined in [Policy DRA Error Resolution Procedures](#) to determine the specific cause of failure and resolution using the 3-digit error codes.

3.55.15 RxPcaAnsRelayedUnsupportedAppld

Measurement ID

11410

Measurement Group

OC-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Diameter Answer messages relayed by PCA containing an Application-Id AVP value that is not supported.

Collection Interval

5 min

Peg Condition

Each time PCA receives a Diameter Answer message containing an Application-Id value that is not supported and forwards it to DRL for routing.

Measurement Scope

All

Recovery

1. This measurement represents an exception condition in which a Diameter Answer messages are being received containing an Auth-Application-Id AVP value that is not supported by the Policy and Charging DSR Application. Each Diameter Answer containing an unsupported Application-ID is sent without modification to the downstream peer that initiation the Diameter transaction. This condition causes the generation of Event 22701 Protocol Error In Diameter Answer. Refer to the *DSR Alarms and KPIs Reference* for details about Event 22701.
2. The Policy and Charging DSR Application receiving a Diameter Answer message containing an unsupported Auth-Application-Id AVP value that represents an abnormal/unexpected condition since it only requests to receive Answers for Diameter Request messages containing Auth-Application-Ids that it supports.
3. It is recommended to contact the [#unique_131](#) for assistance if needed.

3.55.16 RxOcdraReqNoCcRequestType

Measurement ID

11411

Measurement Group

OC-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Gy/Ro Credit-Control-Request messages received by OC-DRA that did not contain the CC-Request-Type AVP.

Collection Interval

5 min

Peg Condition

Each time OC-DRA receives a Gy/Ro Credit-Control-Request message that does not contain the CC-Request-Type AVP.

Measurement Scope

All

Recovery

- This measurement represents an exception condition in which Gy/Ro Diameter Credit-Control-Request messages are being received containing no CC-Request-Type AVP. Each Diameter Request containing a missing CC-Request-Type AVP is rejected using “CCR-Type-AVP is missing from CCR message” error condition. This condition causes the generation of Event 22700 Protocol Error In Diameter Request. Refer to the *DSR Alarms and KPIs Reference* for details about Event 22700.

3.55.17 RxOcdraUnsupportedCcRequestType

Measurement ID

11412

Measurement Group

OC-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Gy/Ro Credit-Control-Request/Answer messages received by OC-DRA that contained an unsupported CC-Request-Type AVP value.

Collection Interval

5 min

Peg Condition

Each time OC-DRA receives a Gy/Ro Credit-Control-Request/Answer message that contains and unsupported CC-Request-Type AVP value.

Measurement Scope

All

Recovery

- This measurement represents an exception condition in which Gy/Ro Diameter Credit-Control-Request messages are being received containing an invalid CC-Request-Type AVP value. Each Diameter Request containing an invalid CC-Request-Type AVP is rejected using "Invalid AVP value in request" error condition. This condition causes the generation of Event 22700 Protocol Error In Diameter Request. Refer to the *DSR Alarms and KPIs Reference* for details about Event 22700.

3.55.18 RxOcdraStackEventDiscardedCaFailure

Measurement ID

11413

Measurement Group

OC-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of stack events discarded by ComAgent due to ComAgent failures.

Collection Interval

5 min

Peg Condition

Each time OC-DRA sends a stack event and it is discarded due to a ComAgent failure as indicated by the returned ComAgent Error Response Stack error code

Measurement Scope

All

Recovery

1. This measurement represents an exception condition in which ComAgent Error Response Stack events are being received indicating that ComAgent has experienced communication failure when OC-DRA sends Policy and Charging SBR Request stack events to the Session SBR. Each Policy and Charging SBR Request stack event is discarded.
2. This condition also causes Event 22704 Communication Agent Error to be generated indicating the error code of the received ComAgent Error Response Stack event. Refer to the *DSR Alarms and KPIs Reference* for details about Event 22700.
3. The following ComAgent measurements should be inspected within the same collection interval to further determine the specific reason for the stack event being discarded:

- [CAHSTxDscrdCongSR](#)
- [CAHSTxDscrdUnkwnRsrc](#)
- [CAHSTxDscrdIntErrSR](#)

Refer to the Recovery steps for any/all of these measurements that were pegged in the same collection interval.

4. Check Alarm 19832 ComAgent Reliable Transaction Failed in the *DSR Alarms and KPIs Reference*, as well as measurements [CAHSTxDscrdCongSR](#), [CAHSTxDscrdUnkwnRsrc](#), [CAHSTxDscrdIntErrSR](#) for detailed error causes.

3.55.19 RxOcdraStackEventDiscardedUnsupported

Measurement ID

11414

Measurement Group

OC-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of SBR Stack Events discarded by OC-DRA that contained an unsupported Event Type value.

Collection Interval

5 min

Peg Condition

Each time OC-DRA discards a stack event received from the SBR that contained an unsupported Event Type value.

Measurement Scope

All

Recovery

1. This measurement represents an exception condition in which SBR Response messages are being received containing an invalid Online Charging Event Type value. Each Diameter Request containing an invalid Online Charging Event Type value is discarded
2. It is recommended to contact [#unique_131](#) for assistance if needed.

3.55.20 RxGyRoCcrInitNoMsisdn

Measurement ID

11415

Measurement Group

OC-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Gy/Ro CCR-I messages that OC-DRA failed to extract the MSISDN from the Subscription-Id Grouped AVP or the User-Name AVP.

Collection Interval

5 min

Peg Condition

Each time OC-DRA fails to extract the MSISDN from a Gy/Ro Credit-Control-Request message with the CC-Request-Type AVP set to INITIAL_REQUEST (CCR-I) when session state is to be maintained

Measurement Scope

All

Recovery

1. This measurement represents an exception condition in which Gy/Ro CCR-I messages are being received without containing an MSISDN in the Subscription-Id Grouped AVP or User-Name AVP. Each Gy/Ro CCR-I Request not containing an MSISDN in the Subscription-Id Grouped AVP or User-Name AVP is sent without modification to the OCS.
2. If session state is stored for this transaction, the MSISDN will be stored as "Not Present".

3.55.21 RxGyRoCcrInitNoDestHostMultOcsPoolMode

Measurement ID

11416

Measurement Group

OC-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Gy/Ro CCR-I messages received without a Destination-Host when OC-DRA is operating in Multiple OCS Pools mode.

Collection Interval

5 min

Peg Condition

Each time a Gy/Ro Credit-Control-Request message with the CC-Request-Type AVP set to INITIAL_REQUEST (CCR-I) is received without a Destination-Host when OC-DRA is operating in Multiple OCS Pools mode.

Measurement Scope

All

Recovery

1. This measurement represents an exception condition in which Gy/Ro CCR-I messages are being received without containing a Destination-Host when OC-DRA is operating in Multiple OCS Pools Mode for Regionalized Routing. Each Gy/Ro CCR-I Request message not containing a Destination-Host when OC-DRA is operating in Multiple OCS Pools Mode is sent without modification to the OCS.
2. When OC-DRA is configured to operate in Multiple OCS Pools Mode for Regionalize Routing, it relies on RBAR and mechanisms like Mediation to be invoked prior to PCA OC-DRA invocation to populate a Destination-Host and/or Destination-Realm AVPs for session initiation Requests (CCR-Is). The Destination-Host is used to represent a pool of OCS servers that can serve the Request. The Request is routed via the Diameter Routing Layer where the Peer Routing Table (PRT) rules will be used to route the Request to one of the OCS servers within the pool using priorities/weights configured in the Route List selected via the Peer Routing Table (PRT).
3. RBAR and mechanisms like Mediation should be verified to be properly configured and invoked prior to PCA invocation.
4. It is recommended to contact [#unique_131](#) for assistance if needed.

3.55.22 RxGyRoCcrEventNoDestHostMultOcsPoolMode

Measurement ID

11417

Measurement Group

OC-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Gy/Ro CCR-E messages received without a Destination-Host when OC-DRA is operating in Multiple OCS Pools mode

Collection Interval

5 min

Peg Condition

Each time a Gy/Ro Credit-Control-Request message with the CC-Request-Type AVP set to EVENT_REQUEST (CCR-E) is received without a Destination-Host when OC-DRA is operating in Multiple OCS Pools mode.

Measurement Scope

All

Recovery

1. This measurement represents an exception condition in which Gy/Ro CCR-E messages are being received without containing a Destination-Host when OC-DRA is operating in Multiple OCS Pools Mode for Regionalized Routing. Each Gy/Ro CCR-E Request message not containing a Destination-Host when OC-DRA is operating in Multiple OCS Pools Mode is sent without modification to the OCS.
2. When OC-DRA is configured to operate in Multiple OCS Pools Mode for Regionalize Routing, it relies on RBAR and mechanisms like Mediation to be invoked prior to PCA OC-DRA invocation to populate a Destination-Host and/or Destination-Realm AVPs for session initiation Requests (CCR-Is). The Destination-Host is used to represent a pool of OCS servers that can serve the Request. The Request is routed via the Diameter Routing Layer where the Peer Routing Table (PRT) rules will be used to route the Request to one of the OCS servers within the pool using priorities/weights configured in the Route List selected via the Peer Routing Table (PRT).
3. RBAR and mechanisms like Mediation should be verified to be properly configured and invoked prior to PCA invocation.
4. It is recommended to contact [#unique_131](#) for assistance if needed.

3.55.23 RxGyRoInSessionReqNoDestHost

Measurement ID

11418

Measurement Group

OC-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of in-session Gy/Ro Diameter Credit Control Application Request messages received by OC-DRA without a Destination-Host.

Collection Interval

5 min

Peg Condition

Each time OC-DRA receives an in-session Gy/Ro Diameter Request message (i.e. CCR-U/T and RAR) that does not contain a Destination-Host.

Measurement Scope

All

Recovery

1. This measurement represents an exception condition in which in-session Gy/Ro Diameter Request messages (i.e. CCR-U/T and RAR) are being received without a Destination-Host. Session data is retrieved from the SBR for each in-session Gy/Ro Diameter Request message not containing a Destination-Host. If session data is found, a Destination-Host AVP is populated with the true server name and inserted into the Diameter Request and the Diameter Request is relayed. If session data is not found, the Diameter Request is rejected using "Session Not Found" error condition.
2. This condition may occur for any of the following reasons that require OC-DRA to be configured to store session state:
 - A client is not capable of learning the OCS server name from the CCA-I
 - The OCS server is not capable of learning the name of a client from the CCR-I
3. Verify that session state is properly configured if either client or OCS server is not capable in learning each other's hostname.

3.55.24 RxOcdraSessionUnkToPeer

Measurement ID

11419

Measurement Group

OC-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Gy/Ro Diameter Answer messages received by OC-DRA from the peer with a Result-Code value 5002 (DIAMETER_UNKNOWN_SESSION_ID).

Collection Interval

5 min

Peg Condition

Each time OC-DRA receives a Gy/Ro Diameter Answer message from the peer with a Result-Code value 5002 (DIAMETER_UNKNOWN_SESSION_ID).

Measurement Scope

All

Recovery

1. This measurement represents an exception condition in which Gy/Ro Diameter Answer messages are being received by OC-DRA containing a Result-Code value 5002 (DIAMETER_UNKNOWN_SESSION_ID).
2. Each Gy/Ro Diameter Answer message received containing a Result-Code value 5002 is sent without modification to the peer that originated the Diameter Request.
3. If a Gy/Ro CCA-U or RAA message is received containing a Result-Code value 5002, OC-DRA will remove the session from the Session SBR if session state applies.

3.55.25 RxOcdraAnsweringOcsNotConfigured

Measurement ID

11420

Measurement Group

OC-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of answering OCS servers not configured locally.

Collection Interval

5 min

Peg Condition

Each time OC-DRA receives a session initiation answer from an OCS server whose FQDN is not configured at the Policy and Charging SOAMP

Measurement Scope

All

Recovery

1. This measurement represents an exception condition in which an Online Charging session initiation response is being received from an OCS server that is not configured at the Policy and Charging SOAMP. Each Online Charging session initiation response (i.e.,

CCA-I) received from an unknown OCS server is relayed without modification to the downstream peer that initiated the Diameter transaction. However, session state is not stored for the Online Charging session. This condition causes Alarm 22730 Policy and Charging Configuration Error to be asserted. Refer to the *DSR Alarms and KPIs Reference* for details on Alarm 22730.

2. Determine whether the OCS server has been configured in **Policy and Charging**, and then **Configuration**, and then **Online Charging PDRA**, and then **OCSs** at the Policy and Charging site where Alarm 22730 has been asserted. If the OCS is not configured at the site, configure it using **Policy and Charging**, and then **Configuration**, and then **Online Charging PDRA**, and then **OCSs [Insert]**.
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.56 OC-DRA Congestion Exception measurements

The **OC-DRA** Congestion Exception measurement report contains measurements that provide performance information specific to the OC-DRA Diameter protocol.

3.56.1 RxGyRoReqDiscardedCongestionPerCmd

Measurement ID

11397

Measurement Group

OC-DRA Congestion Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Request Command Abbreviation i.e. CCR-I/U/T/E, RAR, and "Total")

Description

The number of Gy/Ro Diameter Credit Control Application Request messages discarded due to congestion.

Collection Interval

Peg Condition

Each time a Gy/Ro Diameter Credit Control Application Request message is discarded due to congestion.



Note:

This measurement is pegged twice, once for the 3-digit error code and once for "Total".

Measurement Scope

All

Recovery

- This measurement represents an exception condition in which Gy/Ro Diameter Credit Control Application Request messages are discarded due to congestion. This condition causes Event 22707 Diameter Message Processing Failure to be generated. Refer to the *DSR Alarms and KPIs Reference* for details on Event 22707

3.57 PCA NGN-PS Exception measurements

3.57.1 PcaNgnPsBindingSbrDrop

Measurement ID

11464

Measurement Group

PCA NGN-PS Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

NGN-PS related stack events to be sent to an active Binding SBR that are unsuccessful because of ComAgent errors. The number of NGN-PS related stack events sent to an active Binding SBR rejected.

Collection Interval

5 min

Peg Condition

The measurement shall be pegged each an NGN-PS related stack event to be forwarded to an active binding SBR is rejected due to ComAgent errors.

Measurement Scope

All

Recovery

- Check measurements [CAHSTxDscrdCongSR](#), [CAHSTxDscrdUnkwnRsrc](#), [CAHSTxDscrdIntErrSR](#), and event 19832 from the *Alarms and KPIs Reference* for detailed error causes.

3.57.2 PcaNgnPsSessionSbrDrop

Measurement ID

11465

Measurement Group

PCA NGN-PS Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of NGN-PS related stack events sent to an active Session SBR rejected.

Collection Interval

5 min

Peg Condition

This measurement is pegged each time an NGN-PS related stack event to be forwarded to an active session SBR is rejected due to ComAgent errors.

Measurement Scope

All

Recovery

- Check measurements [CAHSTxDscrdCongSR](#), [CAHSTxDscrdUnkwnRsrc](#), [CAHSTxDscrdIntErrSR](#), and event 19832 from the *Alarms and KPIs Reference* for detailed error causes.

3.57.3 RxPcaNgnPsDrop

Measurement ID

11462

Measurement Group

PCA NGN-PS Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of PCA ingress NGN-PS messages discarded or rejected.

Collection Interval

5 min

Peg Condition

This measurement is pegged each time PCA discards or rejects an NGN-PS message.

Measurement Scope

All

Recovery

- This measurement indicates that a DA-MP may be experiencing congestion. Additional processing capacity at the PCA DA-MP may be needed.

3.58 PCA NGN-PS Performance measurements

3.58.1 RxPcaNgnPs

Measurement ID

11461

Measurement Group

PCA NGN-PS Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of PCA ingress NGN-PS messages.

Collection Interval

5 min

Peg Condition

This measurement is pegged each time PCA receives a Diameter message from any PCA-supported Diameter interface (Gx/Gxx, Rx, Gx-Prime, Gy/Ro) that has been assigned NGN-PS priority.

Measurement Scope

All

Recovery

- No action required.

3.59 P-DRA Diameter Usage measurements

The **P-DRADiameter Usage** measurement report contains measurements that provide performance information that is specific to the P-DRA Diameter protocol.

3.59.1 RxPdraCcrInitMsgs

Measurement ID

10800

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of CCR Initial messages received by PDRA.

Collection Interval

5 min

Peg Condition

The measurement shall be incremented each time the application receives a CCR Initial message.

Measurement Scope

All

Recovery

- No action necessary.

3.59.2 RxPdraCcrUpdateMsgs

Measurement ID

10801

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of CCR Update messages received by PDRA.

Collection Interval

5 min

Peg Condition

The measurement shall be incremented each time the application receives a CCR Update message.

Measurement Scope

All

Recovery

- No action necessary.

3.59.3 RxPdraCcrTerminateMsgs

Measurement ID

10802

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of CCR Termination messages received by PDRA.

Collection Interval

5 min

Peg Condition

The measurement shall be incremented each time the application receives a CCR Termination message.

Measurement Scope

All

Recovery

- No action necessary.

3.59.4 RxCcrInitNoImsiMsgs

Measurement ID

10803

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of CCR Initial messages without IMSI.

Collection Interval

5 min

Peg Condition

The measurement shall be incremented each time P-DRA processes a CCR Initial message in which IMSI is not present.

Measurement Scope

All

Recovery

- No action necessary.

3.59.5 RxPdraRarGxMsgs

Measurement ID

10804

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of **RAR** messages received by PDRA for **Gx** interface.

Collection Interval

5 min

Peg Condition

The measurement shall be incremented each time the application receives a RAR message for Gx interface.

Measurement Scope

All

Recovery

- No action necessary.

3.59.6 RxPdraRarRxMsgs

Measurement ID

10805

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of **RAR** messages received by **PDRA** for **Rx** interface.

Collection Interval

5 min

Peg Condition

The measurement shall be incremented each time the application receives a RAR message for Rx interface.

Measurement Scope

All

Recovery

- No action necessary.

3.59.7 RxPdraAarMsgs

Measurement ID

10806

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of **AAR** messages received by PDRA.

Collection Interval

5 min

Peg Condition

The measurement shall be incremented each time the application receives an AAR message.

Measurement Scope

All

Recovery

- No action necessary.

3.59.8 RxPdraStrMsgs

Measurement ID

10807

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of **STR** messages received by PDRA.

Collection Interval

5 min

Peg Condition

The measurement shall be incremented per interface each time the application receives a STR message.

Measurement Scope

All

Recovery

- No action necessary.

3.59.9 PdraGxTopoHidingApplied

Measurement ID

10809

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of messages received on Gx interface on which topology hiding has been applied by P-DRA.

Collection Interval

5 min

Peg Condition

The measurement shall be incremented each time topology hiding is applied when a message from Gx interface is processed by the application.

Measurement Scope

All

Recovery

- No action necessary.

3.59.10 PdraRxTopoHidingApplied

Measurement ID

10810

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of messages received on Rx interface on which topology hiding has been applied by P-DRA.

Collection Interval

5 min

Peg Condition

The measurement shall be incremented each time topology hiding is applied when a message from Rx interface is processed by the application.

Measurement Scope

All

Recovery

- No action necessary.

3.59.11 RxPdraMsgRateAvg

Measurement ID

10819

Measurement Group

P-DRA Diameter Usage

Measurement Type

Average

Measurement Dimension

Single

Description

Average Diameter ingress message processing rate of P-DRA during the collection interval.

Collection Interval

5 min

Peg Condition

This peg is periodically updated based on average rate of the Diameter ingress messages being processed by P-DRA calculated over the collection interval.

Measurement Scope

All

Recovery

- No action necessary.

3.59.12 RxPdraMsgRatePeak

Measurement ID

10820

Measurement Group

P-DRA Diameter Usage

Measurement Type

Max

Measurement Dimension

Single

Description

Peak Diameter ingress message processing rate of P-DRA during the collection interval.

Collection Interval

5 min

Peg Condition

This peg is periodically updated based on maximum rate of the Diameter ingress messages being processed by P-DRA calculated over the collection interval.

Measurement Scope

All

Recovery

- No action necessary.

3.59.13 RxPdra5002FromPcrf

Measurement ID

10868

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of 5002 DIAMETER_UNKNOWN_SESSION_ID responses received from a PCRF

Collection Interval

5 min

Peg Condition

This peg is incremented by one each time a **PCRF** responds to a Diameter request with a 5002 response code.

Measurement Scope

All

Recovery

- No action necessary.

3.59.14 RxPdra5002FromPolicyClient

Measurement ID

10894

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of 5002 DIAMETER_UNKNOWN_SESSION_ID responses received from a policy client.

Collection Interval

5 min

Peg Condition

This peg is incremented by one each time a policy client responds to a Diameter request with a 5002 response code.

Measurement Scope

All

Recovery

- No action necessary.

3.59.15 TxPdraGxRarRelease

Measurement ID

11300

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Gx RAR requests initiated by P-DRA for the purpose of releasing a session as a result of an error in the P-DRA.

Collection Interval

5 min

Peg Condition

The measurement shall be pegged each time a P-DRA DA-MP server sends a P-DRA initiated RAR request to a policy client for the purpose of releasing a session due to an error in the P-DRA

Measurement Scope

All

Recovery

1. Check **Alarms & Events**, and then **View History GUI** for pSBR Event 22711 - Policy SBR Database Error (refer to the *DSR Alarms and KPIs Reference* for details about this event) for more details about the possible cause of the error.
2. It is recommended to contact [#unique_131](#) for support as needed.

3.59.16 RxPdraGxpCcrInitMsgs

Measurement ID

11330

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Gx-Prime CCR Initial messages processed by P-DRA against binding key priorities.

Collection Interval

5 min

Peg Condition

Each time a Gx-Prime CCR-I message is processed by P-DRA.

Measurement Scope

All

Recovery

- No action required.

3.59.17 RxPdraGxpCcrUpdateMsgs

Measurement ID

11331

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Gx-Prime CCR Update messages received by P-DRA.

Collection Interval

5 min

Peg Condition

Each time the P-DRA Application receives a Gx-Prime CCR Update message.

Measurement Scope

All

Recovery

- No action required.

3.59.18 RxPdraGxpCcrTerminateMsgs

Measurement ID

11332

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Gx-Prime CCR Termination messages received by P-DRA.

Collection Interval

5 min

Peg Condition

Each time the P-DRA Application receives a Gx-Prime CCR Termination message.

Measurement Scope

All

Recovery

- No action required.

3.59.19 PdraGxpTopoHidingApplied

Measurement ID

11333

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Gx-Prime CC Request messages on which topology hiding is applied.

Collection Interval

5 min

Peg Condition

Each time a Gx-Prime CC request message is processed by the P-DRA application and topology hiding is applied on the message.

Measurement Scope

All

Recovery

- No action required.

3.59.20 RxPdraFindingBindingSuccess

Measurement ID

11334

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Arrayed (bucketed by binding key priority number from 1 to 5)

Description

Number of binding-dependent (Gx-Prime CCR Initial and AAR) messages processed by P-DRA against binding key priorities.

Collection Interval

5 min

Peg Condition

Each time a Gx-Prime CCR-I message is processed by P-DRA.

 **Note:**

The number is sorted and stored in 5 buckets:

- Bucket 1 holds the number of Gx-Prime CCR-I or AAR messages that lead to successful binding record findings corresponding to the binding keys with the highest (1) priority.
- Bucket 2 (or 3, or 4) holds the number of Gx-Prime CCR-I or AAR messages that lead to successful binding record findings corresponding to the configured binding keys with priority 2 (or 3, or 4).
- Bucket 5 holds the number of Gx-Prime CCR-I or AAR messages that lead NO binding record finding after exhausting all binding keys.

Measurement Scope

All

Recovery

- No action required.

3.59.21 RxPdraRarGxpMsgs

Measurement ID

11335

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Gx-Prime RAR messages processed by P-DRA.

Collection Interval

5 min

Peg Condition

Each time a Gx-Prime RAR message is processed by P-DRA.

Measurement Scope

All

Recovery

- No action required.

3.59.22 RxBindCapApn2PcrfPool

Measurement ID

11340

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Arrayed (by APN)

Description

The number of times a given **APN** is successfully mapped to **PCRF** pool.

Collection Interval

5 min

Peg Condition

Each time a binding capable session initiation request is successfully mapped to a PCRF Pool (a configured APN), regardless of whether or not the rule matching results in the selection of a PCRF Pool or a PCRF Sub-Pool.

Measurement Scope

Network Element, Server Group, Resource Domain, Place, Place Association

Recovery

1. This measurement shows the distribution of binding capable session initiation requests across the range of configured APNs.
2. It is recommended to contact [#unique_131](#).

3.59.23 RxBindCap2PcrfSubPool

Measurement ID

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Arrayed (by PCRF Sub-Pool Selection Rule)

Description

The number of binding capable session initiation requests that were mapped to a PCRF Sub-Pool by a given PCRF Sub-Pool Selection Rule.

Collection Interval

5 min

Peg Condition

Each time a binding capable session initiation request is successfully mapped to a PCRF Sub-Pool as a result of a given PCRF Sub-Pool Selection Rule, regardless of whether the request is routed to the Sub-Pool or routed elsewhere due to an existing binding.

Measurement Scope

Network Element, Server Group, Resource Domain, Place, Place Association

Recovery

1. This measurement shows the distribution of binding capable session initiation requests for which a new binding would route to a PCRF Sub-Pool across the set of PCRF Sub-Pool Selection Rules.
2. It is recommended to contact [#unique_131](#).

3.59.24 RxBindCapPcrfPool2Prt

Measurement ID

11342

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Arrayed (by PCRF Pool or Sub-Pool)

Description

The number of binding capable session initiation requests that are routed using a PRT table chosen as a result of PCRF Pool or PCRF Sub-Pool mapping to the PRT.

Collection Interval

5 min

Peg Condition

Each time a binding capable session initiation request is routed using a PRT table selected on the basis of the PCRF Pool or Sub-Pool, regardless of whether or not the request was routed successfully.

Measurement Scope

Network Element, Server Group, Resource Domain, Place, Place Association

Recovery

1. This measurement shows the distribution of binding capable session initiation requests that are routed using a given Peer Routing Table at each site.
2. It is recommended to contact [#unique_131](#).

3.59.25 RxPdraAsrMsgs

Measurement ID

10808

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of **ASR** messages received by PDRA.

Collection Interval

5 min

Peg Condition

The measurement shall be incremented each time the application receives an ASR message.

Measurement Scope

All

Recovery

- No action necessary.

3.59.26 TxPdraGxRarQuery

Measurement ID

10899

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Gx RAR messages initiated by P-DRA for the purposes of querying for session existence at the policy client.

Collection Interval

5 min

Peg Condition

The measurement shall be incremented by one each time a P-DRA DA-MP server sends a P-DRA initiated RAR request to a policy client for the purpose of querying the policy client for session existence.

Measurement Scope

All

Recovery

1. If this value is consistently non-zero, it may indicate that the stale session timing is configured to be too short. The stale session timer for a given session is configured in **Policy DRA**, and then **Configuration**, and then **Access Point Names** if the session is associated with a configured APN, or **Policy DRA**, and then **Configuration**, and then **Network-Wide Options** if the session is not associated with an APN, or associated with an APN that is not configured.
2. If the problem persists, it is recommended to contact [#unique_131](#).

3.59.27 TmImsiBindingDuration

Measurement ID

11421

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Histogram of IMSI binding durations.

Collection Interval

5 min

Peg Condition

When an ImsiApnAnchorKey binding is removed due to removal of the last session reference associated with that binding, the appropriate histogram instance shall be incremented by 1.

If an ImsiApnAnchorKey record is removed when the only session references are in one of the "early" states (i.e. Early Master or Early Slave), this measurement must not be incremented, to prevent skewing the data with binding capable sessions that were never successfully established.

Measurement Scope

Network, Place Association, Resource Domain

Recovery

- This measurement shows a histogram of subscriber binding lifetimes, providing information to assist in predicting the duration of a binding SBR Database Reconfiguration.

The histogram shows the durations of IMSI bindings. A given subscriber (IMSI) may have more than one binding. A binding may have more than one session associated with it.

Histogram measurements consist of 101 array entries:

- 0 – Overflow. Incremented if duration is greater than 9,830 minutes.
- 1-5 – 1 minute buckets. Incremented for durations between 0 and 5 minutes.
- 6-10 – 5 minute buckets. Incremented for durations between 0 and 30 minutes.
- 11-15 – 10 minute buckets. Incremented for durations between 30 and 80 minutes.

- 16-20 – 30 minute buckets. Incremented for durations between 80 and 230 minutes.
- 21-100 – 120 minute buckets. Incremented for durations between 230 and 9,830 minutes.

3.59.28 TmGxSessionDuration

Measurement ID

11422

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Histogram of normally terminated Gx session durations.

Collection Interval

5 min

Peg Condition

When a Gx session record is removed, the appropriate histogram instance shall be incremented by 1.

Measurement Scope

Network, Place Association, Resource Domain

Recovery

- This measurement shows a histogram of Gx session lifetimes, providing information to assist in predicting the duration of a session SBR Database Reconfiguration.

Histogram measurements consist of 101 array entries:

- 0 – Overflow. Incremented if duration is greater than 9,830 minutes.
- 1-5 – 1 minute buckets. Incremented for durations between 0 and 5 minutes.
- 6-10 – 5 minute buckets. Incremented for durations between 0 and 30 minutes.
- 11-15 – 10 minute buckets. Incremented for durations between 30 and 80 minutes.
- 16-20 – 30 minute buckets. Incremented for durations between 80 and 230 minutes.
- 21-100 – 120 minute buckets. Incremented for durations between 230 and 9,830 minutes.

A session SBR Database Reconfiguration cannot complete normally until all session records for all supported Diameter interfaces have migrated. As a result, the session duration histogram for each interface being used must be examined to

determine which interface has the highest average session duration. This value can be used to predict the likely duration of the reconfiguration.

3.59.29 TmGxSessionRefresh

Measurement ID

11428

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Histogram of Gx session refresh durations.

Collection Interval

5 min

Peg Condition

When a Gx session record is refreshed, the appropriate histogram instance shall be incremented by 1. Gx sessions are refreshed during RAA processing.

Measurement Scope

Network, Place Association, Resource Domain

Recovery

- This measurement shows a histogram of Gx session refresh durations, providing information to assist in setting the Stale Session Timeout for APNs that use this interface. If the Stale Session Timeout for an APN using the Gx interface is set too short, the session audit will send an RAR to the Policy Client that created the session to ask if it is still valid. Having the Stale Session Timeout set too short results in increased RAR traffic between the Policy DRA and the Policy Clients.

Histogram measurements consist of 101 array entries:

- 0 – Overflow. Incremented if duration is greater than 9,830 minutes.
- 1-5 – 1 minute buckets. Incremented for durations between 0 and 5 minutes.
- 6-10 – 5 minute buckets. Incremented for durations between 0 and 30 minutes.
- 11-15 – 10 minute buckets. Incremented for durations between 30 and 80 minutes.
- 16-20 – 30 minute buckets. Incremented for durations between 80 and 230 minutes.
- 21-100 – 120 minute buckets. Incremented for durations between 230 and 9,830 minutes.

3.59.30 TmGxxSessionDuration

Measurement ID

11423

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Histogram of normally terminated Gxx session durations.

Collection Interval

5 min

Peg Condition

When a Gxx session record is removed, the appropriate histogram instance shall be incremented by 1.

Measurement Scope

Network, Place Association, Resource Domain

Recovery

- This measurement shows a histogram of Gxx session lifetimes, providing information to assist in predicting the duration of a session SBR Database Reconfiguration.

Histogram measurements consist of 101 array entries:

- 0 – Overflow. Incremented if duration is greater than 9,830 minutes.
- 1-5 – 1 minute buckets. Incremented for durations between 0 and 5 minutes.
- 6-10 – 5 minute buckets. Incremented for durations between 0 and 30 minutes.
- 11-15 – 10 minute buckets. Incremented for durations between 30 and 80 minutes.
- 16-20 – 30 minute buckets. Incremented for durations between 80 and 230 minutes.
- 21-100 – 120 minute buckets. Incremented for durations between 230 and 9,830 minutes.

A session SBR Database Reconfiguration cannot complete normally until all session records for all supported Diameter interfaces have migrated. As a result, the session duration histogram for each interface being used must be examined to determine which interface has the highest average session duration. This value can be used to predict the likely duration of the reconfiguration.

3.59.31 TmGxxSessionRefresh

Measurement ID

11429

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Histogram of Gxx session refresh durations.

Collection Interval

5 min

Peg Condition

When a Gxx session record is refreshed, the appropriate histogram instance shall be incremented by 1. Gxx sessions are refreshed during RAA processing.

Measurement Scope

Network, Place Association, Resource Domain

Recovery

- This measurement shows a histogram of Gxx session refresh durations, providing information to assist in setting the Stale Session Timeout for APNs that use this interface. If the Stale Session Timeout for an APN using the Gxx interface is set too short, the session audit will send an RAR to the Policy Client that created the session to ask if it is still valid. Having the Stale Session Timeout set too short results in increased RAR traffic between the Policy DRA and the Policy Clients.

Histogram measurements consist of 101 array entries:

- 0 – Overflow. Incremented if duration is greater than 9,830 minutes.
- 1-5 – 1 minute buckets. Incremented for durations between 0 and 5 minutes.
- 6-10 – 5 minute buckets. Incremented for durations between 0 and 30 minutes.
- 11-15 – 10 minute buckets. Incremented for durations between 30 and 80 minutes.
- 16-20 – 30 minute buckets. Incremented for durations between 80 and 230 minutes.
- 21-100 – 120 minute buckets. Incremented for durations between 230 and 9,830 minutes.

3.59.32 TmRxSessionDuration

Measurement ID

11424

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Histogram of normally terminated Rx session durations.

Collection Interval

5 min

Peg Condition

When an Rx session record is removed, the appropriate histogram instance shall be incremented by 1.



Note:

Binding-dependent session records are stored only if topology hiding applies to the AF that created the session.

Measurement Scope

Network, Place Association, Resource Domain

Recovery

- This measurement shows a histogram of Rx session lifetimes, providing information to assist in predicting the duration of a session SBR Database Reconfiguration.



Note:

This measurement applies only to sessions for which session state is being maintained. Policy DRA does not maintain Rx session state unless Topology Hiding applies to the session.

Histogram measurements consist of 101 array entries:

- 0 – Overflow. Incremented if duration is greater than 9,830 minutes.
- 1-5 – 1 minute buckets. Incremented for durations between 0 and 5 minutes.
- 6-10 – 5 minute buckets. Incremented for durations between 0 and 30 minutes.
- 11-15 – 10 minute buckets. Incremented for durations between 30 and 80 minutes.
- 16-20 – 30 minute buckets. Incremented for durations between 80 and 230 minutes.
- 21-100 – 120 minute buckets. Incremented for durations between 230 and 9,830 minutes.

A session SBR Database Reconfiguration cannot complete normally until all session records for all supported Diameter interfaces have migrated. As a result, the session duration histogram for each interface being used must be examined to determine which interface has the highest average session duration. This value can be used to predict the likely duration of the reconfiguration.

3.59.33 TmRxSessionRefresh

Measurement ID

11430

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Histogram of Rx session refresh durations.

Collection Interval

5 min

Peg Condition

When an Rx session record is refreshed, the appropriate histogram instance shall be incremented by 1. Rx sessions are refreshed during RAA processing.

Measurement Scope

Network, Place Association, Resource Domain

Recovery

- This measurement shows a histogram of Rx session refresh durations, providing information to assist in setting the Stale Session Timeout for APNs that use this interface. If the Stale Session Timeout for an APN using the Rx interface is set too short, the session audit will remove the session prematurely, possibly causing signaling failures for subsequent in-session request processing needing topology hiding translations.

 **Note:**

This measurement applies only to sessions for which session state is being maintained. Policy DRA does not maintain Rx session state unless Topology Hiding applies to the session.

Histogram measurements consist of 101 array entries:

- 0 – Overflow. Incremented if duration is greater than 9,830 minutes.
- 1-5 – 1 minute buckets. Incremented for durations between 0 and 5 minutes.
- 6-10 – 5 minute buckets. Incremented for durations between 0 and 30 minutes.
- 11-15 – 10 minute buckets. Incremented for durations between 30 and 80 minutes.
- 16-20 – 30 minute buckets. Incremented for durations between 80 and 230 minutes.
- 21-100 – 120 minute buckets. Incremented for durations between 230 and 9,830 minutes.

3.59.34 TmGxPrimeSessionDuration

Measurement ID

11425

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Histogram of normally terminated Gx-Prime session durations.

Collection Interval

5 min

Peg Condition

When a Gx-Prime session record is removed, the appropriate histogram instance shall be incremented by 1.

**Note:**

Binding-dependent session records are stored only if topology hiding applies to the AF that created the session.

Measurement Scope

Network, Place Association, Resource Domain

Recovery

- This measurement shows a histogram of Gx-Prime session lifetimes, providing information to assist in predicting the duration of a session SBR Database Reconfiguration.

**Note:**

This measurement applies only to sessions for which session state is being maintained. Policy DRA does not maintain Gx-Prime session state unless Topology Hiding applies to the session.

Histogram measurements consist of 101 array entries:

- 0 – Overflow. Incremented if duration is greater than 9,830 minutes.
- 1-5 – 1 minute buckets. Incremented for durations between 0 and 5 minutes.
- 6-10 – 5 minute buckets. Incremented for durations between 0 and 30 minutes.

- 11-15 – 10 minute buckets. Incremented for durations between 30 and 80 minutes.
- 16-20 – 30 minute buckets. Incremented for durations between 80 and 230 minutes.
- 21-100 – 120 minute buckets. Incremented for durations between 230 and 9,830 minutes.

A session SBR Database Reconfiguration cannot complete normally until all session records for all supported Diameter interfaces have migrated. As a result, the session duration histogram for each interface being used must be examined to determine which interface has the highest average session duration. This value can be used to predict the likely duration of the reconfiguration.

3.59.35 TmGxPrimeSessionRefresh

Measurement ID

11431

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Histogram of Gx-Prime session refresh durations.

Collection Interval

5 min

Peg Condition

When a Gx-Prime session record is refreshed, the appropriate histogram instance shall be incremented by 1. Gx-Prime sessions are refreshed during RAA processing.

**Note:**

Binding-dependent session records are stored only if topology hiding applies to the AF that created the session.

Measurement Scope

Network, Place Association, Resource Domain

Recovery

- This measurement shows a histogram of Gx-Prime session refresh durations, providing information to assist in setting the Stale Session Timeout for APNs that use this interface. If the Stale Session Timeout for an APN using the Gx-Prime interface is set too short, the session audit will remove the session prematurely, possibly causing signaling failures for subsequent in-session request processing needing topology hiding translations.

 **Note:**

This measurement applies only sessions for which session state is being maintained. Policy DRA does not maintain Gx-Prime session state unless Topology Hiding applies to the session.

Histogram measurements consist of 101 array entries:

- 0 – Overflow. Incremented if duration is greater than 9,830 minutes.
- 1-5 – 1 minute buckets. Incremented for durations between 0 and 5 minutes.
- 6-10 – 5 minute buckets. Incremented for durations between 0 and 30 minutes.
- 11-15 – 10 minute buckets. Incremented for durations between 30 and 80 minutes.
- 16-20 – 30 minute buckets. Incremented for durations between 80 and 230 minutes.
- 21-100 – 120 minute buckets. Incremented for durations between 230 and 9,830 minutes.

3.59.36 TmS9SessionDuration

Measurement ID

11426

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Histogram of normally terminated S9 session durations.

Collection Interval

5 min

Peg Condition

When an S9 session record is removed, the appropriate histogram instance shall be incremented by 1.

Measurement Scope

Network, Place Association, Resource Domain

Recovery

- This measurement shows a histogram of S9 session lifetimes, providing information to assist in predicting the duration of a session SBR Database Reconfiguration.

Histogram measurements consist of 101 array entries:

- 0 – Overflow. Incremented if duration is greater than 9,830 minutes
- 1-5 – 1 minute buckets. Incremented for durations between 0 and 5 minutes.
- 6-10 – 5 minute buckets. Incremented for durations between 0 and 30 minutes.
- 11-15 – 10 minute buckets. Incremented for durations between 30 and 80 minutes.
- 16-20 – 30 minute buckets. Incremented for durations between 80 and 230 minutes.
- 21-100 – 120 minute buckets. Incremented for durations between 230 and 9,830 minutes.

A session SBR Database Reconfiguration cannot complete normally until all session records for all supported Diameter interfaces have migrated. As a result, the session duration histogram for each interface being used must be examined to determine which interface has the highest average session duration. This value can be used to predict the likely duration of the reconfiguration.

3.59.37 TmS9SessionRefresh

Measurement ID

11432

Measurement Group

P-DRA Diameter Usage

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Histogram of S9 session refresh durations.

Collection Interval

5 min

Peg Condition

When an S9 session record is refreshed, the appropriate histogram instance shall be incremented by 1. S9 sessions are refreshed during RAA processing.

Measurement Scope

Network, Place Association, Resource Domain

Recovery

- This measurement shows a histogram of S9 session refresh durations, providing information to assist in setting the Stale Session Timeout for APNs that use this interface. If the Stale Session Timeout for an APN using the S9 interface is set too short, the session audit will send an RAR to the Policy Client that created the session to ask if it is still valid. Having the Stale Session Timeout set too short results in increased RAR traffic between the Policy DRA and the Policy Clients.

Histogram measurements consist of 101 array entries:

- 0 – Overflow. Incremented if duration is greater than 9,830 minutes
- 1-5 – 1 minute buckets. Incremented for durations between 0 and 5 minutes.

- 6-10 – 5 minute buckets. Incremented for durations between 0 and 30 minutes.
- 11-15 – 10 minute buckets. Incremented for durations between 30 and 80 minutes.
- 16-20 – 30 minute buckets. Incremented for durations between 80 and 230 minutes.
- 21-100 – 120 minute buckets. Incremented for durations between 230 and 9,830 minutes.

3.60 P-DRA Diameter Exception measurements

The **P-DRA** Diameter Exception measurement report contains measurements that provide performance information that is specific to the P-DRA Diameter protocol.

3.60.1 BindCorrFailedUsingDefaultAPN

Measurement ID

11469

Measurement Group

P-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of times a binding correlation attempt using a non-specific subscriber binding key and default APN failed to retrieve a binding.

Collection Interval

5 min

Peg Condition

Each time a binding could not be retrieved from the SBR database using a non-specific binding key (such as IMSI or MSISDN) and the default APN configured, when the binding dependent session initiation request contains no APN. If both IMSI and MSISDN are configured in the binding key priority table, this measurement can be incremented twice for one binding dependent session initiation request.

**Note:**

This measurement applies when Policy DRA is working in Multi Pool Mode.

 **Note:**

If a lower priority key results in a successful binding retrieval, the binding dependent session initiation request may be route successfully to the bound PCRF. This exception measurement does not satisfactorily indicate a Binding Not Found error condition and/or a Diameter routing failure.

Measurement Scope

Both

This measurement represents an exception condition in which the binding key priority is configured to use IMSI, MSISDN, or both, there is a Default APN configuration present that is used when the binding dependent session request has no APN value, but the binding lookup attempt results in a failure. This condition causes binding correlation to fail for the MSISDN or IMSI key types. If not other key is present int he request message and/or configured for correlation, the request is rejected using the Binding Not Found error condition. This condition causes Alarm 22730 Policy and Charging Configuration Error to be generated.

Recovery

1. Determine if one or more AF(s) is not including an APN (Called-Station-ID AVP) in the binding dependent session initiation request messages for subscribers for which the binding dependent sessions initiation request messages for subscribers for which the binding capable sessions were created using an APN other than the one that is currently configured as the Default APN in the Network-Wide Options GUI screen. If this condition is found to be true, the Default APN configuration needs to be correct.
2. Determine if one or more AF(s) is not including an APN (Called-Station-ID AVP) in the binding dependent session initiation request messages for subscribers for which the binding dependent sessions initiation request messages for subscribers for which the binding capable sessions were created using more than one APN, one of which may currently be configured as the Default APN in the Network-Wide Options GUI screen. If this condition is found to be true, it is recommended to switch to Single Pool Mode.

3.60.2 PcaOcdrop

Measurement ID

11463

Measurement Group

P-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of PCA originated messages rejected by DA-MP overload control..

Collection Interval

5 min

Peg Condition

The measurement is pegged each time a PCA-generated RAR is rejected due to DRL queue full or DA-MP OC.

Measurement Scope

All

Recovery

- This measurement indicates that a DA-MP may be experiencing congestion. Additional processing capacity at the PCA DA-MP may be needed.

3.60.3 RxBindCapPcrfPoolNotMapped

Measurement ID

11343

Measurement Group

P-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of binding capable session initiation requests that were destined for a PCRF Pool or Sub-Pool for which no PRT table was configured.

Collection Interval

5 min

Peg Condition

Each time a new binding attempt is supposed to be routed to a PCRF Pool or Sub-Pool for which no PRT table is configured at the site where the routing is occurring.

Measurement Scope

Network Element, Server Group, Resource Domain, Place, Place Association

Recovery

1. This measurement represents an exception condition in which a PCRF Pool or Sub-Pool has been configured for use at the NOAMP, but no PRT table has been configured at one or more sites to route requests to that PCRF Pool or Sub-Pool. Consider whether a PRT table should be configured at the Network Element to which this measurement applies
2. It is recommended to contact [#unique_131](#).

3.60.4 RxBindCapMissingApn

Measurement ID

11345

Measurement Group
P-DRA Diameter Exception

Measurement Type
Simple

Measurement Dimension
Single

Description
The number of binding capable session initiation requests containing no APN.

Collection Interval
5 min

Peg Condition
Each time a binding capable session initiation request is received containing no APN (i.e. no Called-Station-ID AVP).



Note:

This condition also causes Alarm 22730 - Policy and Charging Configuration Error (refer to the *DSR Alarms and KPIs Reference* for details about this alarm) to be asserted.

Measurement Scope
Network Element, Server Group, Resource Domain, Place, Place Association

Recovery

1. This measurement represents an exception condition in which binding capable session initiation request are being received with no APN value. Each binding capable session initiation request containing a missing APN is rejected using the Missing Or Unconfigured APN error condition.
2. It is recommended to contact [It is recommended to contact](#) .

3.60.5 RxBindCapUnknownApn

Measurement ID
11344

Measurement Group
P-DRA Diameter Exception

Measurement Type
Simple

Measurement Dimension
Single

Description
The number of binding capable session initiation requests containing an unconfigured APN.

Collection Interval

5 min

Peg Condition

Each time a binding capable session initiation request is received containing an APN that is not configured at the Policy DRA NOAMP.

 **Note:**

This condition also causes Alarm 22730 - Policy and Charging Configuration Error (refer to the *DSR Alarms and KPIs Reference* for details about this alarm) to be asserted.

Measurement Scope

Network Element, Server Group, Resource Domain, Place, Place Association

Recovery

1. This measurement represents an exception condition in which binding capable session initiation request are being received from unknown APN values. Each binding capable session initiation request containing an unconfigured APN is rejected using the Missing Or Unconfigured APN error condition.
2. It is recommended to contact [#unique_131](#).

3.60.6 RxBindDepUnknownApn

Measurement ID

11346

Measurement Group

P-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of attempts to correlate a binding dependent session initiation request using a non-specific binding correlation key (i.e., IMSI or MSISDN), but containing an unconfigured APN.

Collection Interval

5 min

Peg Condition

Each time an attempt is made to find a binding using either IMSI or MSISDN, but the binding dependent session initiation request contains an APN that is not configured at the Policy DRA NOAMP. If both IMSI and MSISDN are configured in the binding key priority table, this measurement can be incremented twice for one binding dependent session initiation request.

 **Note:**

This condition also causes Alarm 22730 - Policy DRA Configuration Error to be asserted. Refer to the *DSR Alarms and KPIs Reference* for details about this alarm.

Measurement Scope

Network Element, Server Group, Resource Domain, Place, Place Association

Recovery

1. This measurement represents an exception condition in which the binding key priority is configured to use IMSI, MSISDN, or both, but the binding dependent session initiation request has an APN value that is not configured. This condition causes binding correlation to fail for the MSISDN or IMSI key types. If no other key is present and configured for correlation, the request is rejected using the Binding Not Found error condition.
2. It is recommended to contact [#unique_131](#).

3.60.7 RxBindDepMissingApn

Measurement ID

11347

Measurement Group

P-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of attempts to correlate a binding dependent session initiation request using a non-specific binding correlation key (i.e. IMSI or MSISDN), but containing no APN

Collection Interval

5 min

Peg Condition

Each time an attempt is made to find a binding using either IMSI or MSISDN, but the binding dependent session initiation request contains no APN. If both IMSI and MSISDN are configured in the binding key priority table, this measurement can be incremented twice for one binding dependent session initiation request.

 **Note:**

This condition also causes Alarm 22730 - Policy and Charging Configuration Error (refer to the *DSR Alarms and KPIs Reference* for details about this alarm) to be asserted.

Measurement Scope

Network Element, Server Group, Resource Domain, Place, Place Association

Recovery

1. This measurement represents an exception condition in which the binding key priority is configured to use IMSI, MSISDN, or both, but the binding dependent session initiation request has no APN value. This condition causes binding correlation to fail for the MSISDN or IMSI key types. If no other key is present and configured for correlation, the request is rejected using the Binding Not Found error condition.
2. It is recommended to contact [#unique_131](#).

3.60.8 RxBindCapUnknownPcrf

Measurement ID

11348

Measurement Group

P-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of binding capable session initiation answers coming from an unconfigured PCRF.

Collection Interval

5 min

Peg Condition

Each time a binding capable session initiation answer for a new binding is received from a PCRF that is not configured at the Policy DRA SOAM.

 **Note:**

This condition also causes Alarm 22730 - Policy and Charging Configuration Error (refer to the *DSR Alarms and KPIs Reference* for details about this alarm) to be asserted.

Measurement Scope

Network Element, Server Group, Resource Domain, Place, Place Association

Recovery

1. This measurement represents an exception condition in which binding capable session initiation answers for new bindings are being received from unknown PCRF FQDNs. When this occurs, the binding capable session answered by the unconfigured PCRF is torn down by an RAR containing a Session-Release-Cause AVP send from the Policy DRA.
2. Refer to Alarm 22730 - Policy and Charging Configuration Error in the *DSR Alarms and KPIs Reference* for further information.
3. It is recommended to contact [#unique_131](#).

3.60.9 RxPcaRARRouteLocalFailure

Measurement ID

11460

Measurement Group

P-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of times the locally generated RAR could not be route

Collection Interval

5 min

Peg Condition

Each time the locally generated RAR fails to be routed out.

Measurement Scope

Both

Recovery

- None

3.60.10 RxPcaTransactionsRejected

Measurement ID

11317

Measurement Group

P-DRA Diameter Exception, OC-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of transactions rejected by Policy and Charging DSR Application.

Collection Interval

5 min

Peg Condition

Each time the Policy and Charging Application (PCA) initiates an Answer response with a non-successful Result-Code (one containing a non-2xxx value) or discards an ingress Request message for any of the following reasons:

- OC-DRA is Unavailable or Disabled
- Diameter Protocol Error Detected
- OC-DRA specific errors due to absence of mandatory Diameter Credit Control Application AVP(s) used for routing
- Diameter Request discarded during Congestion
- Diameter Message Routing failure due to DRL's Request Queue Full
- Communication Agent Error (i.e., Queue Full)
- Unexpected SBR Error
- Online Charging Session not found when required for routing



Note:

This measurement is only pegged once for an ingress Request message.

Measurement Scope

Server Group

Recovery

1. This measurement gives an indication if any Gy/Ro Diameter Credit Control Application Request messages were NOT successfully relayed by OC-DRA. OC-DRA can fail to relay Gy/Ro Diameter Credit Control Application Request messages for various reasons as stated above for "Peg Condition".
2. This measurement is the summation of the following measurements which should be inspected within the same collection interval to further determine the specific cause of failure:
 - [TxGyRoAnsGenByOcdraPerCmd](#)
 - [TxGyRoAnsGenByDrlPerCmd](#)
 - [RxGyRoReqDiscardedCongestionPerCmd](#)

 **Note:**

Due to the timing of when measurements are incremented and collected during a collection interval, this measurement may not be the exact sum of the measurements listed above.

3.60.11 RxPdraRequestProtocolErr

Measurement ID

10823

Measurement Group

P-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of invalid Request messages received from **DRL**. Invalid request message includes - unsupported command codes, unsupported application Id, missing or invalid **AVPs**. The AARs without Dest-Host AVP are still valid AARs and shall be pegged.

Collection Interval

5 min

Peg Condition

The measurement shall be incremented by one each time an invalid diameter request message is received by P-DRA.

Measurement Scope

All

Recovery

- It is recommended to contact [#unique_131](#) for assistance.

3.60.12 RxStackEventDiscardedCaFailure

Measurement ID

10866

Measurement Group

P-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of stack events discarded by **ComAgent** due to ComAgent failure.

Collection Interval

5 min

Peg Condition

The measurement shall be incremented by one each time a stack event is discarded by ComAgent due to a ComAgent failure as indicated by a returned stack event error code of all available error codes.

Measurement Scope

All

Recovery

1. Check ComAgent Event 19832 - Communication Agent Reliable Transaction Failed (refer to the *DSR Alarms and KPIs Reference* for details about this event) and ComAgent measurements [CAHSTxDscrdCongSR](#), [CAHSTxDscrdUnkwnRsrc](#), and [CAHSTxDscrdIntErrSR](#) for detailed error causes.
2. If the problem persists, it is recommended to contact [#unique_131](#) for assistance.

3.60.13 TxAaxMsgDiscardedDueToDrlQueueFull

Measurement ID

10829

Measurement Group

P-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of AAR/AAA messages discarded by P-DRA due to DRL queue being full.

Collection Interval

5 min

Peg Condition

The measurement shall be incremented by one each time a AAR/AAA message is discarded by the application because DRL queue is full.

Measurement Scope

All

Recovery

- No action required.

3.60.14 TxAsxMsgDiscardedDueToDrlQueueFull

Measurement ID
10871

Measurement Group
P-DRA Diameter Exception

Measurement Type
Simple

Measurement Dimension
Single

Description
Number of ASR messages discarded by P-DRA due to DRL queue being full.

Collection Interval
5 min

Peg Condition
The measurement shall be incremented by one each time a ASR message is discarded by the application because DRL queue is full.

Measurement Scope
All

Recovery

- No action required.

3.60.15 TxCcxMsgDiscardedDueToDrlQueueFull

Measurement ID
10825

Measurement Group
P-DRA Diameter Exception

Measurement Type
Simple

Measurement Dimension
Single

Description
Number of **CCR/CCA** messages discarded by P-DRA due to **DRL** queue being full.

Collection Interval
5 min

Peg Condition
The measurement shall be incremented by one each time a **CCR/CCA** message is discarded by the application because **DRL** queue is full.

Measurement Scope

All

Recovery

- No action required.

3.60.16 TxGxpCcxMsgDiscardedDrlQueueFull

Measurement ID

11338

Measurement Group

P-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Gx-Prime CCR/CCA messages discarded by P-DRA due to DRL queue being full.

Collection Interval

5 min

Peg Condition

Each time a Gx-Prime CCR/CCA message is discarded by the P-DRA application because DRL queue is full.

Measurement Scope

All

Recovery

- It is recommended to contact [#unique_131](#).

3.60.17 TxPdraAnswersGeneratedConfigErr

Measurement ID

11311

Measurement Group

P-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Diameter Answers generated by P-DRA due to configuration errors when processing session initiation requests.

Collection Interval

5 min

Peg Condition

This measurement is pegged each time when P-DRA generates an error Answer in processing a session initiation request due to

- No PCRF being configured at the site where the request is processed OR
- No PCRF ID being found in PCRF table OR
- The APN contained in the request message not configured.

The measurement is pegged also each time when P-DRA generates an error Answer in processing a binding dependent session initiation request if the APN in the request is not configured in the Policy DRA and the site is configured to correlate on IMSI, MSISDN, or both and no other binding correlation key is successfully used for correlation.

**Note:**

In binding dependent request cases, this measurement is raised only when the Binding Not Found condition applies, the APN is unconfigured, and an IMSI or MSISDN was used as a possible correlation key.

Measurement Scope

All

Recovery

1. Check the P-DRA System OAM GUI Main Menu: **Policy DRA**, and then **Configuration**, and then **PCRFs** to ensure PCRFs are configured properly.
2. If there is an unconfigured PCRF, it means that the binding capable session initiation request was routed to a PCRF that is not configured in **Policy DRA**, and then **Configuration**, and then **PCRFs** at the site where the request was received. This indicates a mismatch between the PCRF's configuration and the routing configuration. If the PCRF is a valid choice for the request, configure the PCRF in **Policy DRA**, and then **Configuration**, and then **PCRFs**. If the PCRF is not valid for the request, correct the routing table or tables that included the PCRF.

See also [RxBindCapUnknownPcrf](#).

3. If there is an unconfigured APN and if the APN string is valid, configure the APN at the NOAMP using the **Policy DRA**, and then **Configuration**, and then **Access Point Names** screen. If the APN string is not valid, investigate the policy client to determine why it is sending policy session initiation requests using the invalid APN.

See also [RxBindCapUnknownApn](#) and [RxBindDepUnknownApn](#).

4. If there is a missing APN, investigate the policy client to determine why it is sending policy session initiation requests with no APN.

See also [RxBindCapMissingApn](#) and [RxBindDepMissingApn](#)

5. If there are no PCRFs configured, configure PCRFs at the SOAM GUI for the site using **Policy DRA**, and then **Configuration**, and then **PCRFs**.

6. If needed, it is recommended to contact [#unique_131](#) for further assistance.

3.60.18 TxPdraAnswersGeneratedForDiameterErr

Measurement ID

10833

Measurement Group

P-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Diameter answers generated by P-DRA due to error in received Diameter messages from DRL.

Collection Interval

5 min

Peg Condition

The measurement shall be incremented by one each time a diameter answer message is generated by P-DRA due to error in received Diameter messages from DRL. The errors encountered may be:

- Diameter protocol errors
- P-DRA application specific errors due to absence of some optional AVP(s) in the Diameter request

Measurement Scope

All

Recovery

- No action required.

3.60.19 TxPdraAnswersGeneratedForPsbrErrResp

Measurement ID

10832

Measurement Group

P-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Diameter Answer messages generated by P-DRA because of pSBR stack event error response.

Collection Interval

5 min

Peg Condition

The measurement shall be incremented by one each time a diameter answer message is generated by P-DRA because of pSBR stack event error response.

Measurement Scope

All

Recovery

- No action required.

3.60.20 TxPdraErrAnsGeneratedCAFailure

Measurement ID

10834

Measurement Group

P-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Diameter answers generated by P-DRA due to ComAgent failure.

Collection Interval

5 min

Peg Condition

The measurement shall be incremented by one each time a diameter answer message is generated by P-DRA due to comagent routing failure.

Measurement Scope

All

Recovery

- No action required.

3.60.21 TxRaxMsgDiscardedDueToDrlQueueFull

Measurement ID

10827

Measurement Group

P-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of RAR/RAA messages discarded by P-DRA due to DRL queue being full.

Collection Interval

5 min

Peg Condition

The measurement shall be incremented by one each time a RAR/RAA message is discarded by the application because DRL queue is full. The measurement shall be incremented by one each time a CCR/CCA message is discarded by the application because DRL queue is full.

Measurement Scope

All

Recovery

- No action required.

3.60.22 TxStxMsgDiscardedDueToDrlQueueFull

Measurement ID

10831

Measurement Group

P-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of STR/STA messages discarded by P-DRA due to DRL queue being full.

Collection Interval

5 min

Peg Condition

The measurement shall be incremented by one each time a STR/STA message is discarded by the application because DRL queue is full.

Measurement Scope

All

Recovery

- No action required.

3.61 P-DRA Congestion Exception measurements

The **P-DRA** Congestion Exception measurement report contains measurements that provide performance information that is specific to the P-DRA Diameter protocol.

3.61.1 RxCcrMsgDiscardedDueToCongestion

Measurement ID

10824

Measurement Group

P-DRA Congestion Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of CCR messages discarded by P-DRA due to congestion.

Collection Interval

5 min

Peg Condition

The measurement shall be incremented by one each time a CCR message is discarded by P-DRA due to congestion.

Measurement Scope

All

Recovery

- It is recommended to contact [#unique_131](#) for assistance.

3.61.2 RxRarMsgDiscardedDueToCongestion

Measurement ID

10826

Measurement Group

P-DRA Congestion Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of RAR messages discarded by P-DRA due to congestion.

Collection Interval

5 min

Peg Condition

The measurement shall be incremented by one each time an RAR message is discarded by P-DRA due to congestion.

Measurement Scope

Network, NE, Server

Recovery

- It is recommended to contact [#unique_131](#) for assistance.

3.61.3 RxAarMsgDiscardedDueToCongestion

Measurement ID

10828

Measurement Group

P-DRA Congestion Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of AAR messages discarded by P-DRA due to congestion.

Collection Interval

5 min

Peg Condition

The measurement shall be incremented by one each time an AAR message is discarded by P-DRA due to congestion.

Measurement Scope

All

Recovery

- It is recommended to contact [#unique_131](#) for assistance.

3.61.4 RxStrMsgDiscardedDueToCongestion

Measurement ID

10830

Measurement Group

P-DRA Congestion Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of STR messages discarded by P-DRA due to congestion.

Collection Interval

5 min

Peg Condition

The measurement shall be incremented by one each time an STR message is discarded by P-DRA due to congestion.

Measurement Scope

All

Recovery

- It is recommended to contact [#unique_131](#) for assistance.

3.61.5 RxGxpCcrMsgDiscardedDueToCongestion

Measurement ID

11339

Measurement Group

P-DRA Diameter Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of **Gx-Prime** CCR messages discarded by P-DRA due to P-DRA internal congestion.

Collection Interval

5 min

Peg Condition

Each time a Gx-Prime CCR message is discarded by the P-DRA application due to P-DRA internal congestion.

Measurement Scope

All

Recovery

- It is recommended to contact [#unique_131](#) for assistance.

3.61.6 RxAsrMsgDiscardedDueToCongestion

Measurement ID

10870

Measurement Group

P-DRA Congestion Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of ASR messages discarded by P-DRA due to P-DRA congestion.

Collection Interval

5 min

Peg Condition

The measurement shall be incremented by one each time an ASR message is discarded by P-DRA due to congestion.

Measurement Scope

All

Recovery

- It is recommended to contact [#unique_131](#) for assistance.

3.62 P-DRA Site Diameter Usage measurements

The **P-DRA** Site Diameter Usage measurement report contains measurements that provide performance information that is specific to the P-DRA Diameter protocol.

3.62.1 RxSuspectBindingRuleMatchIncrCount

Measurement ID

11336

Measurement Group

P-DRA Site Diameter Usage

Measurement Type

Simple

Measurement Dimension

Arrayed (by Suspect Binding Removal Rule ID)

Description

The number of times a Suspect Binding Removal Rule matched to a supported Diameter message and the Rule is not configured as "Remove Immediately."

Collection Interval

5 min

Peg Condition

Each time a Suspect Binding Removal Rule match has occurred and the rule is not configured to remove the Binding immediately.

Measurement Scope

All

Recovery

- No action required.

3.62.2 RxSuspectBindingRuleMatchRmvlmt

Measurement ID

11337

Measurement Group

P-DRA Site Diameter Usage

Measurement Type

Simple

Measurement Dimension

Arrayed (by Suspect Binding Removal Rule ID)

Description

The number of times a Suspect Binding Removal Rule matched to a supported Diameter message and the Rule is configured as "Remove Immediately."

Collection Interval

5 min

Peg Condition

Each time a Suspect Binding Removal Rule match has occurred and the rule is configured to remove the binding immediately.

Measurement Scope

All

Recovery

- No action required.

3.63 Peer Node Performance measurements

The Peer Node measurement group is a set of measurements that provide performance information that is specific to a Peer Node. These measurements will allow you to determine how many messages are successfully forwarded and received to/from each Peer Node. Measurements such as the following are included in this group.

3.63.1 EvPeerAvpDeleted

Measurement ID

14077

Measurement Group

Peer Node Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Peer Node ID)

Description

The number of Diameter AVPs deleted by an AVP Removal List.

Collection Interval

5 min

Peg Condition

When DRL deletes one instance of an AVP from either a Request or Answer message based upon an AVP Removal List assigned to the Peer Node.

Measurement Scope

Site

Recovery

- No action required.

3.63.2 RxPeerAnswers

Measurement ID

10078

Measurement Group

Peer Node Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Peer Node ID)

Description

Number of routable Answer messages received from Peer-X.

Collection Interval

5 min

Peg Condition

When DRL receives an Answer message event from DCL with a valid Transport Connection ID owned by Peer-X.

Measurement Scope

Server Group

Recovery

- No action required.

3.63.3 RxPeerRequests

Measurement ID

10077

Measurement Group

Peer Node Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Peer Node ID)

Description

Number of routable Request messages received from Peer-X.

Collection Interval

5 min

Peg Condition

When DRL receives a Request message event from DCL with a valid Transport Connection ID owned by Peer-X.

Measurement Scope

Server Group

Recovery

- No action required.

3.63.4 TxPeerAnswers

Measurement ID

10076

Measurement Group

Peer Node Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Peer Node ID)

Description

Number of routable Answer messages sent to Peer-X.

Collection Interval

5 min

Peg Condition

When DRL successfully queues an Answer message for Peer-X to DCL.

Measurement Scope

Server Group

Recovery

- No action required.

3.63.5 TxPeerRequests

Measurement ID

10075

Measurement Group

Peer Node Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Peer Node ID)

Description

Number of routable Request messages sent to Peer-X.

Collection Interval

5 min

Peg Condition

When DRL successfully queues a Request message for Peer-X to DCL.

Measurement Scope

Server Group

Recovery

- No action required.

3.64 Peer Routing Rules measurements

The Peer Routing Rules measurement report is a set of measurements associated with the usage of Peer Routing Rules. These measurements allow you to determine which Peer Routing Rules are most commonly used and the percentage of times that messages were successfully (or unsuccessfully) routed using the Route List.

3.64.1 RxPrtSelected

Measurement ID

10079

Measurement Group

Peer Routing Rules

Measurement Type

Simple

Measurement Dimension

Arrayed (PRT ID)

Description

Number of times that a peer routing rule from PRT-X was selected for routing a Request message.

Collection Interval

5 min

Peg Condition

When the **DRL** selects a peer routing rule from PRT-X for routing a message.

Measurement Scope

Site

Recovery

- No action required.

3.64.2 RxRuleDuplicatePriority

Measurement ID

10083

Measurement Group

Peer Routing Rules

Measurement Type

Simple

Measurement Dimension

Arrayed (by Peer Routing Rule ID)

Description

The number of times that the Peer Routing Rule was selected for routing a message but another Peer Routing Rule had the same priority and was ignored.

Collection Interval

5 min

Peg Condition

When the DSR searches the Peer Routing Rules and finds more than one highest priority Peer Routing Rule with the same priority that matches the search criteria. The measurement is associated with the Peer Routing Rule that is selected for routing.

Measurement Scope

Server Group

Recovery

1. If one or more MPs in a server site have failed, the traffic will be distributed between the remaining MPs in the server site. **MP** server status can be monitored from the **Status & Manage**, and then **Server** page.
2. The mis-configuration of Diameter peers may result in too much traffic being distributed to the MP. The ingress traffic rate of each **MP** can be monitored from the **Status & Manage**, and then **KPIs** page. Each **MP** in the server site should be receiving approximately the same ingress transaction per second.
3. There may be an insufficient number of MPs configured to handle the network traffic load. The ingress traffic rate of each **MP** can be monitored from the **Status & Manage**, and then **KPIs** page. If all MPs are in a congestion state then the offered load to the server site is exceeding its capacity.
4. A software defect may exist resulting in PDU buffers not being deallocated to the pool. This alarm should not normally occur when no other congestion alarms are asserted. The alarm log should be examined using the **Alarms & Events** page.
5. If the problem persists, it is recommended to contact [#unique_131](#).

3.64.3 RxRuleSelected

Measurement ID

10080

Measurement Group

Peer Routing Rules

Measurement Type

Simple

Measurement Dimension

Arrayed (by Peer Routing Rule ID)

Description

The number of times that the Peer Routing Rule was selected for routing a Request message.

Collection Interval

5 min

Peg Condition

When the DSR selects a Peer Routing Rule for routing a message.

Measurement Scope

Server Group

Recovery

- No action required.

3.64.4 RxRuleFwdFailAll

Measurement ID

10081

Measurement Group

Peer Routing Rules

Measurement Type

Simple

Measurement Dimension

Arrayed (by Peer Routing Rule ID)

Description

The number of times that the Peer Routing Rule was selected for routing a Request message and the message was not successfully routed for any reason other than "Abandon with No Answer".

Collection Interval

5 min

Peg Condition

When the DSR selects a Peer Routing Rule to route a Request message and one of the following conditions are met:

1. The Peer Routing Rule's action is Send Answer.
2. The Route List associated with the Peer Routing Rule has an Operational Status of Unavailable.
3. The DSR attempts to route the call but exhausts all routes associated with the Route List and sends an Answer response 3002 (DIAMETER_UNABLE_TO_DELIVER) .

The Route List measurement is associated with the Route List selected for routing.

Measurement Scope

Site

Recovery

1. If a Peer Routing Rule has been configured with the action Send Answer, then every time this Peer Routing Rule is selected for routing a message, this measurement will be incremented. A Peer Routing Rule's action can be viewed using the **Diameter**, and then **Configuration**, and then **Peer Routing Rules** page.
2. If a Peer Routing Rule has been configured with the action Route to Peer, then every time this Peer Routing Rule is selected for routing a message, the Route List associated with this Peer Routing Rule will be used for routing the message. The Peer Routing Rule's Route List can be viewed using the **Diameter**, and then **Configuration**, and then **Peer Routing Rules** page.

3.64.5 TxMsgPrtMarkedForCpy

Measurement ID

14013

Measurement Group

Peer Routing Rules

Measurement Type

Simple

Measurement Dimension

Arrayed (by Peer Routing Rule ID)

Description

The number of Request messages set to a valid M CCS and marked for Message Copy

Collection Interval

5 min

Peg Condition

Each time DRL selects a peer routing rule for routing a Request message, the rule action is set to "Route to Peer" and a M CCS is assigned to the peer routing rule.

Measurement Scope

Recovery

- No action required.

3.65 Provisioning Interface measurements

The provisioning Interface measurement group is a set of measurements associated with the usage of provisioning rules. These measurements allow the user to determine which provisioning rules are most commonly used and the percentage of times messages were successfully (or unsuccessfully) routed.

3.65.1 ProvConnectsAttempted

Measurement ID**Measurement Group**

Provisioning Rules

Measurement Type

Simple

Description

The total number of client initiated connect attempts to establish a connection with the server.

Collection Interval

5 min

Peg Condition**Measurement Scope**

PROV Group

Recovery

- No action required.

3.65.2 ProvConnectsAccepted

Measurement ID

Measurement Group

Provisioning Rules

Measurement Type

Simple

Description

The total number of client initiated connect attempts that have been accepted.

Collection Interval

5 min

Peg Condition

Measurement Scope

PROV Group

Recovery

- No action required.

3.65.3 ProvConnectsDenied

Measurement ID

Measurement Group

Provisioning Rules

Measurement Type

Simple

Description

The total number of client initiated connect attempts that have been denied due to clients not running on an authorized server, maximum number of allowed connections already established, or the provisioning interface is disabled.

Collection Interval

5 min

Peg Condition

Measurement Scope

PROV Group

Recovery

- No action required.

3.65.4 ProvConnectsFailed

Measurement ID

Measurement Group

Provisioning Rules

Measurement Type

Simple

Description

The total number of client initiated connect attempts that failed due to errors during initialization.

Collection Interval

5 min

Peg Condition

Measurement Scope

PROV Group

Recovery

- No action required.

3.65.5 ProvConnectionIdleTimeouts

Measurement ID

Measurement Group

Provisioning Rules

Measurement Type

Simple

Description

Total number of connections that have timed out and terminated due to idleness.

Collection Interval

5 min

Peg Condition

Measurement Scope

PROV Group

Recovery

- No action required.

3.65.6 ProvMsgsReceived

Measurement ID

Measurement Group
Provisioning Rules

Measurement Type
Simple

Description
The total number of PROVISIONING messages that have been received from all sources (except import files).

Collection Interval
5 min

Peg Condition

Measurement Scope
PROV Group

Recovery

- No action required.

3.65.7 ProvMsgsSuccessful

Measurement ID

Measurement Group
Provisioning Rules

Measurement Type
Simple

Description
The total number of PROVISIONING messages that have been successfully processed and a success response sent to the requestor.

Collection Interval
5 min

Peg Condition

Measurement Scope
PROV Group

Recovery

- No action required.

3.65.8 ProvMsgsFailed

Measurement ID

Measurement Group

Provisioning Rules

Measurement Type

Simple

Description

The total number of PROVISIONING messages that have failed to process due to errors and a failure response sent to the requestor.

Collection Interval

5 min

Peg Condition

Measurement Scope

PROV Group

Recovery

- No action required.

3.65.9 ProvMsgsSent

Measurement ID

Measurement Group

Provisioning Rules

Measurement Type

Simple

Description

The total number of PROVISIONING messages that have been sent and a response sent to the requestor.

Collection Interval

5 min

Peg Condition

Measurement Scope

PROV Group

Recovery

- No action required.

3.65.10 ProvMsgsDiscarded

Measurement ID

Measurement Group
Provisioning Rules

Measurement Type
Simple

Description

The total number of PROVISIONING messages that have been discarded (instead of sending a reply to the requestor) due to the connection being shutdown, server being shutdown, server's role switching from active to standby, or transaction not becoming durable within the allowed amount of time.

Collection Interval
5 min

Peg Condition

Measurement Scope
PROV Group

Recovery

- No action required.

3.65.11 ProvMsgsImported

Measurement ID

Measurement Group
Provisioning Rules

Measurement Type
Simple

Description

The total number of PROVISIONING messages that have been received from a file import operation.

Collection Interval
5 min

Peg Condition

Measurement Scope
PROV Group

Recovery

- No action required.

3.65.12 ProvTxnCommitted

Measurement ID

Measurement Group

Provisioning Rules

Measurement Type

Simple

Description

The total number of transactions that have been successfully committed to the database (memory and on disk) on the active server of the primary SDS site.

Collection Interval

5 min

Peg Condition

Measurement Scope

PROV Group

Recovery

- No action required.

3.65.13 ProvTxnWriteMutexTimeouts

Measurement ID

Measurement Group

Provisioning Rules

Measurement Type

Simple

Description

The total number of write transactions that have failed to be processed due to timing out while waiting to acquire the write transaction mutex.

Collection Interval

5 min

Peg Condition

Measurement Scope

PROV Group

Recovery

- No action required.

3.65.14 ProvTxnFailed

Measurement Group:Provisioning Rules

Measurement Type: Simple

Description: The total number of transactions that have failed to be started, committed, or aborted due to errors.

Collection Interval: 5 min

Peg Condition:

Measurement Scope: PROV Group

Recovery:

- No action required.

3.65.15 ProvTxnAborted

Measurement ID

Measurement Group
Provisioning Rules

Measurement Type
Simple

Description
The total number of transactions that have been successfully aborted.

Collection Interval
5 min

Peg Condition

Measurement Scope
PROV Group

Recovery

- No action required.

3.65.16 ProvTxnTotal

Measurement ID

Measurement Group
Provisioning Rules

Measurement Type
Simple

Description
The total number of transactions that have been attempted. It is the sum of ProvTxnCommitted, ProvTxnTimeouts, ProvTxnAborted, and ProvTxnFailed counters.

Collection Interval
5 min

Peg Condition

Measurement Scope

PROV Group

Recovery

- No action required.

3.65.17 ProvTxnDurabilityTimeouts

Measurement ID

Measurement Group

Provisioning Rules

Measurement Type

Simple

Description

The total number of committed, non-durable transaction that have failed to become durable within the amount of time specified by Transaction Durability Timeout.

Collection Interval

5 min

Peg Condition

Measurement Scope

PROV Group

Recovery

- No action required.

3.65.18 ProvRelayMsgsSent

Measurement ID

Measurement Group

Provisioning Rules

Measurement Type

Simple

Description

The total number of relayed PROVISIONING messages sent to the remote system.

Collection Interval

5 min

Peg Condition

Measurement Scope

PROV Group

Recovery

- No action required.

3.65.19 ProvRelayMsgsSuccessful

Measurement ID

Measurement Group

Provisioning Rules

Measurement Type

Simple

Description

The total number of relayed PROVISIONING messages that have been successfully processed on the remote system.

Collection Interval

5 min

Peg Condition

Measurement Scope

PROV Group

Recovery

- No action required.

3.65.20 ProvRelayMsgsFailed

Measurement ID

Measurement Group

Provisioning Rules

Measurement Type

Simple

Description

The total number of relayed PROVISIONING messages that have failed to be processed due to errors on the remote system.

Collection Interval

5 min

Peg Condition

Measurement Scope

PROV Group

Recovery

- No action required.

3.65.21 ProvImportsSuccessful

Measurement ID

Measurement Group

Provisioning Rules

Measurement Type

Simple

Description

The number of files imported successfully.

Collection Interval

5 min

Peg Condition

Measurement Scope

PROV Group

Recovery

- No action required.

3.65.22 ProvImportsFailed

Measurement ID

Measurement Group

Provisioning Rules

Measurement Type

Simple

Description

The number of files that failed to be imported due to errors.

Collection Interval

5 min

Peg Condition

Measurement Scope

PROV Group

Recovery

- No action required.

3.65.23 ProvExportsSuccessful

Measurement ID

Measurement Group
Provisioning Rules

Measurement Type
Simple

Description
The number of successful CSV/XML file export requests.

Collection Interval
5 min

Peg Condition

Measurement Scope
PROV Group

Recovery

- No action required.

3.65.24 ProvExportsFailed

Measurement ID

Measurement Group
Provisioning Rules

Measurement Type
Simple

Description
The number of CSV/XML file export requests that failed due to errors.

Collection Interval
5 min

Peg Condition

Measurement Scope
PROV Group

Recovery

- No action required.

3.65.25 ProvDnSplitCreated

Measurement ID

Measurement Group
Provisioning Rules

Measurement Type
Simple

Description

Number of DN records successfully created by an Active Split.

Collection Interval

5 min

Peg Condition

Measurement Scope

PROV Group

Recovery

- No action required.

3.65.26 ProvDnSplitRemoved

Measurement ID

Measurement Group

Provisioning Rules

Measurement Type

Simple

Description

Number of DN records successfully removed by a Split Completing its PDP.

Collection Interval

5 min

Peg Condition

Measurement Scope

PROV Group

Recovery

- No action required.

3.65.27 ProvNpaSplitStarted

Measurement ID

Measurement Group

Provisioning Rules

Measurement Type

Simple

Description

Number of NPA split records successfully starting a PDP.

Collection Interval

5 min

Peg Condition

Measurement Scope

PROV Group

Recovery

- No action required.

3.65.28 ProvNpaSplitCompleted

Measurement ID

Measurement Group

Provisioning Rules

Measurement Type

Simple

Description

Number of NPA split records successfully completing a PDP.

Collection Interval

5 min

Peg Condition

Measurement Scope

PROV Group

Recovery

- No action required.

3.65.29 ProvRemoteAuditMsgsSent

Measurement ID

Measurement Group

Provisioning Rules

Measurement Type

Simple

Description

Number of IMSI and MSISDN records audited.

Collection Interval

5 min

Peg Condition

Measurement Scope

PROV Group

Recovery

- No action required.

3.65.30 ProvRelayTimeLag

Measurement ID

Measurement Group
Provisioning Rules

Measurement Type
Simple

Description
Time in seconds between timestamps of last record PdbRelay processed and latest entry in the Command Log.

Collection Interval
5 min

Peg Condition

Measurement Scope
PROV Group

Recovery

- No action required.

3.65.31 ProvDbException

Measurement ID

Measurement Group
Provisioning Rules

Measurement Type
Simple

Description
Number of DB Exception errors.

Collection Interval
5 min

Peg Condition

Measurement Scope
PROV Group

Recovery

- No action required.

3.65.32 ProvRoutingEntityPeak

Measurement ID

Measurement Group

Licensing

Measurement Type

Simple

Description

Peak value calculated by adding count of following Routing entities.

- IMSI
- MSISDN
- NAI User
- Wildcard NAI User Prefix
- IMSI Prefix
- MSISDN Prefix
- External Identifier



Note:

While fetching the measurement report for this group from the OAM GUI/MMI, the interval should always be 5 minutes and not greater than that.

Collection Interval

5 min

Peg Condition

Measurement Scope

Licensing Group

Recovery

- No action required.

3.65.33 RemoteAuditCompleted

Measurement ID

Measurement Group

Provisioning Rules

Measurement Type

Simple

Description

Number of successfully completed remote audit requests.

Collection Interval

5 min

Peg Condition**Measurement Scope**

PROV Group

Recovery

- No action required.

3.65.34 RemoteAuditStarted

Measurement ID**Measurement Group**

Provisioning Rules

Measurement Type

Simple

Description

Number of started remote audit requests.

Collection Interval

5 min

Peg Condition**Measurement Scope**

PROV Group

Recovery

- No action required.

3.66 RD-IWF Performance measurements

The RD-IWF measurement group contains measurements that provide information about the messages that were received and processed (converted) by the RD-IWF.

3.66.1 RxIwfReceivedAll

Measurement ID

16612

Measurement Group

RD-IWF

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of messages received by the RD-IWF.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time the RD-IWF is invoked for any message.

Measurement Scope

Site

Recovery

- No action required.

3.66.2 RxIwfReceivedDEA

Measurement ID

16608

Measurement Group

RD-IWF

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of **DEA** messages received by the RD-IWF.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time the RD-IWF is invoked for the **DEA**.

Measurement Scope

Site

Recovery

- No action required.

3.66.3 RxIwfReceivedRadiusAccessReq

Measurement ID

16606

Measurement Group

RD-IWF

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of **DERs** with embedded RADIUS Access-Request messages received by the RD-IWF.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time the RD-IWF is invoked for the **DER** with the embedded RADIUS Access-Request message.

Measurement Scope

Site

Recovery

- No action required.

3.66.4 TxIwfConvertedDER

Measurement ID

16607

Measurement Group

RD-IWF

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of **DER** messages successfully converted by the RD-IWF.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time the **DER** message is successfully converted by the RD-IWF.

Measurement Scope

Site

Recovery

- No action required.

3.66.5 TxIwfGenRadiusAccessAccept

Measurement ID

16610

Measurement Group

RD-IWF

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Access-Accept messages generated by the RD-IWF.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time the Access-Accept message is generated by the RD-IWF based on the **DEA**.

Measurement Scope

Site

Recovery

- No action required.

3.66.6 TxIwfGenRadiusAccessChallenge

Measurement ID

16609

Measurement Group

RD-IWF

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Access-Challenge messages generated by the RD-IWF.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time the Access-Challenge message is generated by the RD-IWF based on the **DEA**.

Measurement Scope

Site

Recovery

- No action required.

3.66.7 TxIwfGenRadiusAccessReject

Measurement ID

16611

Measurement Group

RD-IWF

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Access-Reject messages generated by the RD-IWF.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time the Access-Reject message is generated by the RD-IWF based on the **DEA**.

Measurement Scope

Site

Recovery

- No action required.

3.67 Route Group Exception measurements

The Route Group Exception measurement group contains measurements that provide information about exceptions and unexpected events that are specific to the Route Groups for which traffic measurement is enable..

3.67.1 RouteGrpSelectedNoEgressConnFound

Measurement ID

14484

Measurement Group

Route Group Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of times Route Group was selected for routing a Request message, but no egress connection candidates were found.

Collection Interval

5 min

Peg Condition

Each time a Route Group was selected for routing a Request message, but no egress connection candidates were found.

Measurement Scope

Site

Recovery

- No action necessary.

3.67.2 RouteGrpAnswerTimeout

Measurement ID

14485

Measurement Group

Route Group Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of times that an Answer response was not received from a peer before the maximum allowed time.

Collection Interval

5 min

Peg Condition

Each time a Pending Answer Time expires.

Measurement Scope

Site

Recovery

- No action necessary.

3.68 Route Group Performance measurements

The Route Group Performance measurement group contains measurements that provide information that is specific to a Route Group.

3.68.1 RouteGrpTxReqPri0

Measurement ID

14463

Measurement Group

Route Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Request messages sent with Priority 0

Collection Interval

5 min

Peg Condition

Each time a Request message with message priority 0 is successfully routed to an egress Diameter Connection for a selected Route Group.

Measurement Scope

Site

Recovery

- No action necessary.

3.68.2 RouteGrpTxReqPri1

Measurement ID

14464

Measurement Group

Route Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Request messages sent with Priority 1

Collection Interval

5 min

Peg Condition

Each time a Request message with message priority 1 is successfully routed to an egress Diameter Connection for a selected Route Group.

Measurement Scope

Site

Recovery

- No action necessary.

3.68.3 RouteGrpTxReqPri2

Measurement ID

14465

Measurement Group

Route Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Request messages sent with Priority 2

Collection Interval

5 min

Peg Condition

Each time a Request message with message priority 2 is successfully routed to an egress Diameter Connection for a selected Route Group.

Measurement Scope

Site

Recovery

- No action necessary.

3.68.4 RouteGrpTxReqPri3

Measurement ID

14466

Measurement Group

Route Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Request messages sent with Priority 3

Collection Interval

5 min

Peg Condition

Each time a Request message with message priority 3 is successfully routed to an egress Diameter Connection for a selected Route Group.

Measurement Scope

Site

Recovery

- No action necessary.

3.68.5 RouteGrpTxReqPri4

Measurement ID

14467

Measurement Group

Route Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Request messages sent with Priority 4

Collection Interval

5 min

Peg Condition

Each time a Request message with message priority 4 is successfully routed to an egress Diameter Connection for a selected Route Group.

Measurement Scope

Site

Recovery

- No action necessary.

3.68.6 RouteGrpTxReqPri5

Measurement ID

14468

Measurement Group

Route Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Request messages sent with Priority 5

Collection Interval

5 min

Peg Condition

Each time a Request message with message priority 5 is successfully routed to an egress Diameter Connection for a selected Route Group.

Measurement Scope

Site

Recovery

- No action necessary.

3.68.7 RouteGrpTxReqPri6

Measurement ID

14469

Measurement Group

Route Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Request messages sent with Priority 6

Collection Interval

5 min

Peg Condition

Each time a Request message with message priority 6 is successfully routed to an egress Diameter Connection for a selected Route Group.

Measurement Scope

Site

Recovery

- No action necessary.

3.68.8 RouteGrpTxReqPri7

Measurement ID

14470

Measurement Group

Route Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Request messages sent with Priority 7

Collection Interval

5 min

Peg Condition

Each time a Request message with message priority 7 is successfully routed to an egress Diameter Connection for a selected Route Group.

Measurement Scope

Site

Recovery

- No action necessary.

3.68.9 RouteGrpTxReqPri8

Measurement ID

14471

Measurement Group

Route Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Request messages sent with Priority 8

Collection Interval

5 min

Peg Condition

Each time a Request message with message priority 8 is successfully routed to an egress Diameter Connection for a selected Route Group.

Measurement Scope

Site

Recovery

- No action necessary.

3.68.10 RouteGrpTxReqPri9

Measurement ID

14472

Measurement Group

Route Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Request messages sent with Priority 9

Collection Interval

5 min

Peg Condition

Each time a Request message with message priority 9 is successfully routed to an egress Diameter Connection for a selected Route Group.

Measurement Scope

Site

Recovery

- No action necessary.

3.68.11 RouteGrpTxReqPri10

Measurement ID

14473

Measurement Group

Route Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Request messages sent with Priority 10

Collection Interval

5 min

Peg Condition

Each time a Request message with message priority 10 is successfully routed to an egress Diameter Connection for a selected Route Group.

Measurement Scope

Site

Recovery

- No action necessary.

3.68.12 RouteGrpTxReqPri11

Measurement ID

14474

Measurement Group

Route Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Request messages sent with Priority 11

Collection Interval

5 min

Peg Condition

Each time a Request message with message priority 11 is successfully routed to an egress Diameter Connection for a selected Route Group.

Measurement Scope

Site

Recovery

- No action necessary.

3.68.13 RouteGrpTxReqPri12

Measurement ID

14475

Measurement Group

Route Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Request messages sent with Priority 12

Collection Interval

5 min

Peg Condition

Each time a Request message with message priority 12 is successfully routed to an egress Diameter Connection for a selected Route Group.

Measurement Scope

Site

Recovery

- No action necessary.

3.68.14 RouteGrpTxReqPri13

Measurement ID

14476

Measurement Group

Route Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Request messages sent with Priority 13

Collection Interval

5 min

Peg Condition

Each time a Request message with message priority 13 is successfully routed to an egress Diameter Connection for a selected Route Group.

Measurement Scope

Site

Recovery

- No action necessary.

3.68.15 RouteGrpTxReqPri14

Measurement ID

14477

Measurement Group

Route Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Request messages sent with Priority 14

Collection Interval

5 min

Peg Condition

Each time a Request message with message priority 14 is successfully routed to an egress Diameter Connection for a selected Route Group.

Measurement Scope

Site

Recovery

- No action necessary.

3.68.16 RouteGrpTxReqPri15

Measurement ID

14478

Measurement Group

Route Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Request messages sent with Priority 15

Collection Interval

5 min

Peg Condition

Each time a Request message with message priority 15 is successfully routed to an egress Diameter Connection for a selected Route Group.

Measurement Scope

Site

Recovery

- No action necessary.

3.68.17 RouteGrpRxAns2xxx

Measurement ID

14479

Measurement Group

Route Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Answer messages received with Result-Code 2xxx

Collection Interval

5 min

Peg Condition

Each time a valid Diameter Answer message is received from an upstream peer that has a pending transaction record in DRL and Result-Code AVP value is in the range of 2000-2999.

Measurement Scope

Site

Recovery

- No action necessary.

3.68.18 RouteGrpRxAnsNon2xxx

Measurement ID

14480

Measurement Group

Route Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Answer messages received with Result-Code non-2xxx

Collection Interval

5 min

Peg Condition

Each time a valid Diameter Answer message is received from an upstream peer that has a pending transaction record in DRL and Result-Code AVP value is not in the range of 2000-2999.

Measurement Scope

Site

Recovery

- No action necessary.

3.68.19 RouteGrpSelectedPrimaryWithinRL

Measurement ID

14481

Measurement Group

Route Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of times Route Group was selected as the Primary Route Group within a Route List.

Collection Interval

5 min

Peg Condition

Each time a Route List is selected for routing a Request message and if the selected Route Group is the current Active Route Group.

Measurement Scope

Site

Recovery

- No action necessary.

3.68.20 RouteGrpTmResponseTimeUpstream

Measurement ID

14483

Measurement Group

Route Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Average Upstream transaction response time

Collection Interval

5 min

Peg Condition

Time interval for each transaction starts when DRL successfully queues a Request message go to DCL/RCL.

Measurement Scope

Site

Recovery

- No action necessary.

3.69 Route List measurements

The Route List measurement report is a set of measurements associated with the usage of Route Lists. These measurements will allow the user to determine which Route Lists are most commonly used and the percentage of times that messages were successfully (or unsuccessfully) routed using the Route List.

3.69.1 RxRouteListFailure

Measurement ID

10071

Measurement Group

Route List

Measurement Type

Simple

Measurement Dimension

Arrayed (by Route List ID)

Description

The number of times that a Route List was selected for routing a Request message and the DSR was unable to successfully route the message. There are several reasons why a message cannot be routed using a Route List:

- The Operational Status of the Route List is Unavailable
- The peers in the active Route Group do not support the Application ID in the Request message
- The Answer response timer is expiring for messages routed through the active Route Group
- Message loop detection is being detected for the peers in the active Route Group

Collection Interval

5 min

Peg Condition

When the DSR selects a Route List to route a Request message and either the Route List's Operational Status is Unavailable or the DSR attempts to route the call but exhausts all routes associated with the Route List and sends an Answer response 3002 (DIAMETER_UNABLE_TO_DELIVER).

The Route List measurement is associated with the Route List selected for routing.

Measurement Scope

Server Group

Recovery

1. Check the Route List settings using the **Diameter**, and then **Configuration**, and then **Route Lists** page.
2. It is recommended to contact [#unique_131](#) for assistance if needed.

3.69.2 RxRouteListSelected

Measurement ID

10070

Measurement Group

Route List

Measurement Type

Simple

Measurement Dimension

Arrayed (by Route List ID)

Description

Number of times that Route List was selected for routing a Request message.

Collection Interval

5 min

Peg Condition

When the DSR selects a Route List for routing a message.

The Route List measurement is associated with the Route List selected for routing.

Measurement Scope

Server Group

Recovery

- No action required.

3.69.3 RxRouteListUnavailable

Measurement ID

10072

Measurement Group

Route List

Measurement Type

Simple

Measurement Dimension

Arrayed (by Route List ID)

Description

The number of Request messages from a downstream peer that were rejected by a Local Node because the selected Route List had an Operational Status of Unavailable.

Collection Interval

5 min

Peg Condition

Request message from a downstream peer is rejected by a Local Node because the selected Route List had an Operational Status of Unavailable. This occurs when the Route List was selected via a Peer Routing Rule or implicit routing but its Operational Status was Unavailable.

Measurement Scope

Server Group

Recovery

1. The operation status of the Route List should be verified using the **Diameter**, and then **Maintenance**, and then **Route Lists** page.
2. It is recommended to contact [#unique_131](#) for assistance if needed.

3.69.4 TmRouteListOutage

Measurement ID

10073

Measurement Group

Route List

Measurement Type

Simple

Measurement Dimension

Arrayed (by Route List ID)

Time (in seconds) that the Route List was unavailable. This will appear as an aggregate value retrieved from all DA-MPs in a Network Element.Description

Collection Interval

5 min

Peg Condition

The time duration interval starts when one of the following conditions occurs:

1. A new collection interval for the measurement begins and Alarm 22053 - Route List Unavailable (refer to the *DSR Alarms and KPIs Reference* for details about this alarm) is asserted.
2. Alarm 22053 - Route List Unavailable (refer to the *DSR Alarms and KPIs Reference* for details about this alarm) is asserted.

The time duration interval stops when one of the following conditions occurs:

1. The current collection interval for the measurement ends and Alarm 22053 - Route List Unavailable (refer to the *DSR Alarms and KPIs Reference* for details about this alarm) is asserted.
2. Alarm 22053 - Route List Unavailable (refer to the *DSR Alarms and KPIs Reference* for details about this alarm) is cleared.

When a time duration interval completes, the time measured is added to the total measurement value.

Measurement Scope

Recovery

1. The operation status of the Route List should be verified using the **Diameter**, and then **Maintenance**, and then **Route Lists** page.
2. It is recommended to contact [#unique_131](#) for assistance if needed.

3.70 Routing Usage measurements

The Routing Usage measurement report allows you to evaluate how ingress Request messages are being routed internally within the **Relay Agent**.

3.70.1 RxRoutedImplicitRealm

Measurement ID

14076

Measurement Group

Routing Usage

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Request messages routed via Destination-Realm Implicit Routing.

Collection Interval

5 min

Peg Condition

The request message is routed using Destination-Realm Implicit Routing.

The "connection measurement" is associated with the Connection from whom the Request message was received.

Measurement Scope

Site

Recovery

- No action required.

3.70.2 RxRoutedIntraMPAttempt

Measurement ID

10063

Measurement Group

Routing Usage

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of attempts to route an ingress request message via intra-MP routing.

Collection Interval

5 min

Peg Condition

When the DSR selects a transport connection controlled by the local MP and successfully queues the Request message on the local message queue. The connection measurement is associated with the connection from which the Request message was received.

Measurement Scope

Server Group

Recovery

- No action required.

3.70.3 RxRoutedPeerDirect

Measurement ID

10061

Measurement Group

Routing Usage

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Request messages implicitly routed directly to a peer.

Collection Interval

5 min

Peg Condition

When the DSR does not find a Peer Routing Rule that matches message content, the Destination-Host AVP is present and its value matches a FQDN of a peer, and the peer is available for egress routing. The connection measurement is associated with the connection from which the Request message was received.

Measurement Scope

Server Group

Recovery

- No action required.

3.70.4 RxRoutedPeerRouteList

Measurement ID

10062

Measurement Group

Routing Usage

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Request messages implicitly routed to a peer via its alternate implicit route.

Collection Interval

5 min

Peg Condition

When the DSR does not find a Peer Routing Rule that matches message content, the Destination-Host AVP is present and its value matches a FQDN of a peer, the peer is Unavailable for egress routing, and the user-defined alternate implicit route for the peer contains a valid Route List. The connection measurement is associated with the connection from which the Request message was received.

Measurement Scope

Server Group

Recovery

- No action required.

3.70.5 RxRoutedPrt

Measurement ID

10060

Measurement Group

Routing Usage

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of Request messages routed using Peer Routing Rules.

Collection Interval

5 min

Peg Condition

When the DSR selects the highest priority Peer Routing Rule which matches message content. The connection measurement is associated with the connection from which the Request message was received.

Measurement Scope

Server Group

Recovery

- No action required.

3.71 SBR Audit measurements

The Session Binding Repository (SBR) Audit measurement report contains measurements that provide performance information that is specific to the SBR Binding Database.

3.71.1 SbrAbortMigratedSessionsTargeted

Measurement ID

11455

Measurement Group

SBR Audit

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of binding-capable sessions scheduled for removal due to Migration Abort Cleanup.

Collection Interval

5 min

Peg Condition

This measurement is incremented during SBR audits of the ImsiApnAnchorKey and Session tables when:

- A binding database reconfiguration is in the Abort administrative state and the binding audit finds an IMSI record that was placed using the Creation Signature for the Target Resource Domain or SBR Database. The measurement is incremented once for each sessionRef in the record when the session reference is successfully placed in the Session Integrity Service queue for removal.
- A session database reconfiguration is in the Abort administrative state and the session audit finds a binding capable Session record that was placed using the Creation Signature for the Target Resource Domain or SBR Database. The measurement is incremented once when the session is successfully placed in the Session Integrity Service queue for removal.

Measurement Scope

Network

Recovery

- This measurement is only used when the network operator chooses to abort an SBR Reconfiguration Plan. The count indicates the number of sessions that were requested to be removed as a result of the migration abort cleanup.

For a Policy DRA binding or session database reconfiguration, migration abort cleanup causes each migrated binding capable session to be scheduled for removal using the Session Integrity capability of PCA. An RAR message including a Session-Release-Cause AVP will be sent for each migrated session. If the policy client responds by sending an RAA followed by a CCR-T, the session will be removed from the P-DRA. When the policy client reestablishes the session, the record will be created using the Creation Signature of the Initial Resource Domain or SBR Database thereby reversing or backing out the migration.

This measurement gives a count of the number of binding capable sessions affected by migration abort cleanup.

3.71.2 SbrAbortMigratedOcSessionsDeleted

Measurement ID

11461

Measurement Group

SBR Audit

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of binding independent sessions deleted due to Migration Abort Cleanup.

Collection Interval

5 min

Peg Condition

This measurement is incremented during SBR audits of the OcSession table. When a session database reconfiguration is in the Abort administrative state and the session audit finds a binding independent Session record that was placed using the Creation Signature for the Target Resource Domain or SBR Database. The measurement is incremented once when the binding independent session is successfully deleted.

Measurement Scope

Network

Recovery

- This measurement is only used when the network operator chooses to abort an SBR Reconfiguration Plan. The count indicates the number of sessions that were removed as a result of the migration abort cleanup.

For an Online Charging DRA session database reconfiguration, migration abort cleanup causes each migrated Gy/Ro session to be removed. This may cause signaling failures which should cause the CTF to reestablish the sessions and thereby cause them to be successfully moved to the Initial SBR Database or Resource Domain.

This measurement gives a count of the number of binding independent sessions deleted by migration abort cleanup.

3.71.3 SbrAcceleratedMigrationSessionsTargeted

Measurement ID

11436

Measurement Group

SBR Audit

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of binding-capable sessions scheduled for removal due to Accelerated Migration.

Collection Interval

5 min

Peg Condition

This measurement is incremented during SBR audits of the ImsiApnAnchorKey and Session tables:

- A binding database reconfiguration is in the Accelerate administrative state and the binding audit finds an IMSI record that was placed using the Creation Signature for the Initial Resource Domain or SBR Database. The measurement is incremented once for each sessionRef in the record when the invokeSessionIntegrityService stack event is sent to request removal of the binding capable session.
- A session database reconfiguration is in the Accelerate administrative state and the session audit finds a binding -capable Session record that was placed using the Creation Signature for the Initial Resource Domain or SBR Database. The measurement is incremented once when the Session Integrity Service is invoked to remove the binding-capable session.

Measurement Scope

Network, Place Association, Resource Domain

Recovery

- No action required.

3.71.4 SbrImsiAuditDbErr

Measurement ID

10853

Measurement Group

SBR Audit

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ImsiAnchorKey audit failures due to DB errors

Collection Interval

5 min

Peg Condition

This peg is updated whenever an ImsiAnchorKey audit fails due to a DB error.

Measurement Scope

All

Recovery

- No action necessary.

3.71.5 SbrMsisdnAuditDbErr

Measurement ID

10855

Measurement Group

SBR Audit

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of MsidnAlternateKey audit failures due to DB error.

Collection Interval

5 min

Peg Condition

This peg is updated whenever a MsidnAlternateKey audit fails due to DB error.

Measurement Scope

All

Recovery

- No action necessary.

3.71.6 SbrIpv4AuditDbErr

Measurement ID

10857

Measurement Group

SBR Audit

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Ipv4AlternateKey audit failures due to DB error.

Collection Interval

5 min

Peg Condition

This peg is updated whenever a Ipv4AlternateKey audit fails due to a DB error.

Measurement Scope

All

Recovery

- No action necessary.

3.71.7 SbrIpv6AuditDbErr

Measurement ID

10859

Measurement Group

SBR Audit

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Ipv6AlternateKey audit failures due to DB error.

Collection Interval

5 min

Peg Condition

This peg is updated whenever a Ipv6AlternateKey audit fails due to a DB error.

Measurement Scope

All

Recovery

- No action necessary.

3.71.8 SbrSessionRecsAudited

Measurement ID

10860

Measurement Group

SBR Audit

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Session Records audited during the reporting interval.

Collection Interval

5 min

Peg Condition

This peg is incremented by one each time a Session record is audited.

Measurement Scope

All

Recovery

- No action necessary.

3.71.9 SbrExpiredSessionsFound

Measurement ID

10861

Measurement Group

SBR Audit

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Expired Session Records found by audit during the reporting interval.

Collection Interval

5 min

Peg Condition

This peg is incremented by one each time a Session record is audited and found to be stale.

Measurement Scope

All

Recovery

- No action necessary.

3.71.10 SbrImisiRecsAudited

Measurement ID

10862

Measurement Group

SBR Audit

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of IMSI Anchor Key Records audited during the reporting interval.

Collection Interval

5 min

Peg Condition

This peg is incremented by one each time an ImsiAnchorKey record is audited.

Measurement Scope

All

Recovery

- No action necessary.

3.71.11 SbrStaleSessionRemoved

Measurement ID

10865

Measurement Group

SBR Audit

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of stale session records that are terminated by audit.

Collection Interval

5 min

Peg Condition

Every time a session record is audited that finds a time out.

Measurement Scope

All

Recovery

- No action necessary.

3.71.12 SbrIpv4RecsAudited

Measurement ID

10867

Measurement Group

SBR Audit

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of IPv4 Alternate Key Records audited during the reporting interval.

Collection Interval

5 min

Peg Condition

This peg is incremented by one each time an Ipv4AlternateKey record is audited.

Measurement Scope

All

Recovery

- No action necessary.

3.71.13 SbrIpv4RecsRemoved

Measurement ID

10869

Measurement Group

SBR Audit

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of IPv4 Alternate Key Records removed by audit during the reporting interval.

Collection Interval

5 min

Peg Condition

This peg is incremented by one each time an Ipv4AlternateKey record is removed by audit.

Measurement Scope

All

Recovery

- No action necessary.

3.71.14 SbrIpv6RecsAudited

Measurement ID

10876

Measurement Group

SBR Audit

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of IPv6 Alternate Key Records audited during the reporting interval.

Collection Interval

5 min

Peg Condition

This peg is incremented by one each time an Ipv6AlternateKey record is audited.

Measurement Scope

All

Recovery

- No action necessary.

3.71.15 SbrSessionAuditDbErr

Measurement ID

10877

Measurement Group

SBR Audit

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Session audit failures due to DB error.

Collection Interval

5 min

Peg Condition

This peg is updated whenever a Session audit fails due to DB error.

Measurement Scope

All

Recovery

- No action necessary.

3.71.16 SbrSessionRefAuditDbErr

Measurement ID

10878

Measurement Group

SBR Audit

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of SessionRef audit failures due to DB errors.

Collection Interval

5 min

Peg Condition

This peg is updated whenever a SessionRef audit fails due to DB error.

Measurement Scope

All

Recovery

- No action necessary.

3.71.17 SbrImsiAuditCaErr

Measurement ID

10881

Measurement Group

SBR Audit

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ImsiAnchorKey audit failures due to **ComAgent** errors

Collection Interval

5 min

Peg Condition

This peg is updated whenever an ImsiAnchorKey audit fails due to ComAgent error.

Measurement Scope

All

Recovery

1. Check ComAgent Event 19832 - Communication Agent Reliable Transaction Failed (refer to the *DSR Alarms and KPIs Reference* for details for this event) and ComAgent measurements [CAHSTxDscrdCongSR](#), [CAHSTxDscrdUnkwnRsrc](#), and [CAHSTxDscrdIntErrSR](#) for detailed error causes.
2. If the problem persists, it is recommended to contact [#unique_131](#) for assistance.

3.71.18 SbrMsisdnAuditCaErr

Measurement ID

10882

Measurement Group

SBR Audit

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of MsidnAlternateKey audit failures due to a ComAgent error condition when the pSBR sends findSessionRef stack event to the active pSBR for the sessionReference record.

Collection Interval

5 min

Peg Condition

This peg is updated when a MsidnAlternateKey audit fails due to a ComAgent error.

Measurement Scope

All

Recovery

1. Check ComAgent Event 19832 - Communication Agent Reliable Transaction Failed (refer to the *DSR Alarms and KPIs Reference* for details about this event) and ComAgent measurements [CAHSTxDscrdCongSR](#), [CAHSTxDscrdUnkwnRsrc](#), and [CAHSTxDscrdIntErrSR](#) for detailed error causes.
2. If the problem persists, it is recommended to contact [#unique_131](#) for assistance.

3.71.19 SbrIpv4AuditCaErr

Measurement ID

10883

Measurement Group

SBR Audit

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Ipv4AlternateKey audit failures due to a ComAgent error condition when the pSBR sends findSessionRef stack event to the active pSBR for the sessionReference record.

Collection Interval

5 min

Peg Condition

This peg is updated whenever a Ipv4AlternateKey audit fails due to ComAgent error.

Measurement Scope

All

Recovery

1. Check ComAgent Event 19832 - Communication Agent Reliable Transaction Failed (refer to the *DSR Alarms and KPIs Reference* for details for this event) and ComAgent measurements [CAHSTxDscrdCongSR](#), [CAHSTxDscrdUnkwnRsrc](#), and [CAHSTxDscrdIntErrSR](#) for detailed error causes.
2. If the problem persists, it is recommended to contact [#unique_131](#) for assistance.

3.71.20 SbrIpv6AuditCaErr

Measurement ID

10884

Measurement Group

SBR Audit

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Ipv6AlternateKey audit failures due to a ComAgent error condition when the pSBR sends findSessionRef stack event to the active pSBR for the sessionReference record.

Collection Interval

5 min

Peg Condition

This peg is updated whenever a Ipv6AlternateKey audit fails due to ComAgent error.

Measurement Scope

All

Recovery

1. Refer to ComAgent Event 19832 - Communication Agent Reliable Transaction Failed (refer to the *DSR Alarms and KPIs Reference* for details about this event) and ComAgent measurements [CAHSTxDscrdCongSR](#), [CAHSTxDscrdUnkwnRsrc](#), and [CAHSTxDscrdIntErrSR](#) for detailed error causes.
2. If the problem persists, it is recommended to contact [#unique_131](#) for assistance.

3.71.21 SbrIpv6RecsRemoved

Measurement ID

11031

Measurement Group

SBR Audit

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of IPv6 Alternate Key Records removed by audit during the reporting interval.

Collection Interval

5 min

Peg Condition

This peg is incremented by one each time an Ipv6AlternateKey record is removed by audit.

Measurement Scope

All

Recovery

- No action necessary.

3.71.22 SbrMsisdnRecsAudited

Measurement ID

10896

Measurement Group

SBR Audit

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of MSISDN Alternate Key Records audited during the reporting interval.

Collection Interval

5 min

Peg Condition

This peg is incremented by one each time an MsisdnAlternateKey record is audited.

Measurement Scope

All

Recovery

- No action necessary.

3.71.23 SbrMsisdnRecsRemoved

Measurement ID

10897

Measurement Group

SBR Audit

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of MSISDN Alternate Key Records removed by audit during the reporting interval.

Collection Interval

5 min

Peg Condition

This peg is incremented by one each time an MsisdnAlternateKey record is removed by audit.

Measurement Scope

All

Recovery

- No action necessary.

3.71.24 SbrImsiRecsRemoved

Measurement ID

10898

Measurement Group

SBR Audit

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of IMSI Anchor Key Records removed by audit during the reporting interval.

Collection Interval

5 min

Peg Condition

This peg is incremented by one each time an ImsiAnchorKey record is removed by audit.

Measurement Scope

All

Recovery

- No action necessary.

3.71.25 SbrImsiSrRemovedByAudit

Measurement ID

11354

Measurement Group

SBR Audit

Measurement Type

Simple

Measurement Dimension

Single

Description

A count of the number of IMSI binding sessionRefs removed by the binding audit.

Collection Interval

5 min

Peg Condition

Each time the binding audit decides to remove an IMSI binding sessionRef due the following conditions:

- PCRF Pooling is Enabled AND
 - The binding sessionRef has been in the database for at least 30 seconds AND
 - The binding sessionRef has no corresponding session in the session database

Measurement Scope

Network Element, Server Group, Resource Domain, Place, Place Association

Recovery

1. This measurement gives an indication of the number of IMSI bindings that for some reason were not removed when the associated Diameter session either failed or was terminated via signaling. This unexpected condition could occur if binding pSBR congestion load shedding prevented removal of the sessionRef from the binding record.
2. It is recommended to contact [#unique_131](#).

3.71.26 SbrMsisdnSrRemovedByAudit

Measurement ID

11357

Measurement Group

SBR Audit

Measurement Type

Simple

Measurement Dimension

Single

Description

A count of the number of MSISDN binding sessionRefs removed by the binding audit.

Collection Interval

5 min

Peg Condition

Each time the binding audit decides to remove an MSISDN sessionRef because the binding sessionRef has no corresponding session in the session database.

Measurement Scope

Network Element, Server Group, Resource Domain, Place, Place Association

Recovery

1. This measurement gives an indication of the number of MSISDN bindings that for some reason were not removed when the associated Diameter session either failed or was terminated via signaling. This unexpected condition could occur if binding pSBR congestion load shedding prevented removal of the sessionRef from the binding record.
2. It is recommended to contact [#unique_131](#).

3.71.27 SbrOcSessionsAudited

Measurement ID

11392

Measurement Group

SBR Audit

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Online Charging sessions audited.

Collection Interval

5 min

Peg Condition

Each time an Online Charging session record is audited.

Measurement Scope

All

Recovery

- No action necessary.

3.71.28 SbrOcSessionsRemovedByAudit

Measurement ID

11394

Measurement Group

SBR Audit

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Online Charging sessions that were removed by an audit.

Collection Interval

5 min

Peg Condition

Each time an Online Charging session is removed by an audit because it was considered to be stale (i.e., session's age exceeds the configured Stale Session Timeout value).

Measurement Scope

All

Recovery

1. This measurement represents a condition in which Online Charging sessions which have not seen any activity for a duration exceeding the configured Stale Session Timeout value are deleted by an audit. Online Charging session's last touch timestamp is updated for each time it is access for routing Credit-Control-Request messages with CC-Request-Type AVP set to UPDATE_REQUEST (CCR-U) and Re-Auth-Request (RAR) messages.
2. Stale Session Timeout values are configurable on a per APN basis. Verify that the Stale Session Timeout values are properly configured by selecting **Main Menu**, and then **Policy and Charging**, and then **Configuration**, and then **Access Point Names** on the NOAMP GUI.
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.71.29 SbrAcceleratedMigrationSessionsTargeted

Measurement ID

11436

Measurement Group

SBR Audit

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of binding capable sessions scheduled for removal due to Accelerated Migration.

Collection Interval

5 min

Peg Condition

This measurement is incremented during SBR audits of the ImsiApnAnchorKey and Session tables as follows:

- A binding database reconfiguration is in the Accelerate administrative state and the binding audit finds an IMSI record that was placed using the Creation Signature for the Initial Resource Domain or SBR Database. The measurement is incremented once for each sessionRef in the record when the invokeSessionIntegrityService stack event is sent to request removal of the binding capable session.
- A session database reconfiguration is in the Accelerate administrative state and the session audit finds a binding capable Session record that was placed using the Creation Signature for the Initial Resource Domain or SBR Database. The measurement is incremented once when the Session Integrity Service is invoked to remove the binding capable session.

Measurement Scope

Network, Place Association, Resource Domain

Recovery

- This measurement is only used when the network operator chooses to accelerate an SBR Reconfiguration Plan. The count indicates the number of sessions that were removed or requested to be removed from a Policy DRA binding or session database or an Online Charging DRA session database as a result of the accelerated migration.

For a Policy DRA binding or session database reconfiguration, accelerated migration causes each non-migrated binding capable session to be scheduled for removal using the Session Integrity capability of PCA. An RAR message including a Session-Release-Cause AVP will be sent for each non-migrated session. If the policy client responds by sending an RAA followed by a CCR-T, the session will be removed from the P-DRA. When the policy client reestablishes the session, the record will be successfully migrated.

For an Online Charging DRA session database reconfiguration, accelerated migration causes each non-migrated Gy/Ro session to be removed, possibly resulting in signaling failures which should cause the CTF to reestablish the sessions and thereby cause them to be successfully migrated.

3.71.30 TxSbrAuditSEReqSent

Measurement ID

11437

Measurement Group

SBR Audit

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Binding Audit stack events sent to Session servers.

Collection Interval

5 min

Peg Condition

This measurement is incremented during SBR audits of the ImsiApnAnchorKey, MsisdnApnAlternateKey, Ipv4AlternateKeyV2, Ipv6AlternateKeyV2 tables each time a FindSessionRef stack event is sent for a session reference in the binding table being audited to the corresponding session SBR server.

Measurement Scope

Network, Place Association, Resource Domain

Recovery

- No action required. This measurement is informational only.

3.71.31 TxSbrAuditSEReqSentRateAvg

Measurement ID

11438

Measurement Group

SBR Audit

Measurement Type

Average

Measurement Dimension

Single

Description

The average number of Binding Audit stack events sent per second to Session servers in the selected time interval.

Collection Interval

5 min

Peg Condition

This measurement accumulates the average rate (per second) of FindSessionRef stack events sent for session references in binding tables being audited.

Measurement Scope

Network, Place Association, Resource Domain

Recovery

- No action required. This measurement is informational only.

3.71.32 TxSbrAuditSEReqSentRatePeak

Measurement ID

11439

Measurement Group

SBR Audit

Measurement Type

Max

Measurement Dimension

Single

Description

The maximum number of Binding Audit stack events sent per second to Session servers in the selected time interval.

Collection Interval

5 min

Peg Condition

This measurement accumulates the peak rate (per second) of FindSessionRef stack events sent for session references in binding tables being audited.

Measurement Scope

Network, Place Association, Resource Domain

Recovery

- No action required. This measurement is informational only.

3.72 SBR Binding Performance measurements

The SBR Binding Performance measurement report contains measurements that provide performance information that is specific to the SBR Binding Database.

3.72.1 MaxSessPerApnExceeded

Measurement ID

11456

Measurement Group

SBR Binding Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (per APN)

Description

The number of times the maximum allowed bound session limit per APN is exceeded for a given APN.

Collection Interval

5 min

Peg Condition

This measurement is incremented by one each time the maximum allowed binding-capable session limit per APN is exceeded for a given APN:

**Note:**

Session exceeded treatment is not needed while pegging this measurement. Determine the appropriate treatment (reject or route) based on the configuration. If treatment is changed in the middle of a measurement, it does not need to be considered.



Note:

This measurement takes precedence over [MaxSessionPerImsiExceeded](#) when max sessions per APN is configured to 10.

Measurement Scope

Network

Recovery

- This measurement gives indication that the maximum allowed session per IMSI per APN limit was exceeded. Verify that the maximum allowed sessions per IMSI value for this APN is set to the expected maximum number of binding capable sessions that a given subscriber should have for this APN. If the value is correct, no further action is necessary.

3.72.2 SbrNewBindingsCreated

Measurement ID

10835

Measurement Group

SBR Binding Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of new bindings created.

Collection Interval

5 min

Peg Condition

This peg is updated whenever a new binding is created.

Measurement Scope

Place Association

Recovery

- No action necessary.

3.72.3 SbrUpdatedBindings

Measurement ID

10836

Measurement Group

SBR Binding Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of existing bindings updated but not deleted, i.e. the Session Reference removed is not the last one

Collection Interval

5 min

Peg Condition

This peg is updated whenever an existing binding is updated.

Measurement Scope

Place Association

Recovery

- No action necessary.

3.72.4 SbrBindTermByAscSess

Measurement ID

10837

Measurement Group

SBR Binding Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number bindings (final) terminated due to termination of all associated sessions.

Collection Interval

5 min

Peg Condition

This peg is updated whenever a binding is terminated due to termination of all associated sessions.

Measurement Scope

Place Association

Recovery

- No action necessary.

3.72.5 SbrAltKeyCreated

Measurement ID

10838

Measurement Group

SBR Binding Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of alternate key records created.

Collection Interval

5 min

Peg Condition

This peg is updated whenever an alternate key record is created.

Measurement Scope

Place Association

Recovery

- No action necessary.

3.72.6 SbrAltKeyDel

Measurement ID

10839

Measurement Group

SBR Binding Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of alternate key records removed.

Collection Interval

5 min

Peg Condition

This peg is updated whenever an alternate key record is deleted.

Measurement Scope

Place Association

Recovery

- No action necessary.

3.72.7 SbrMaxBindingAgeAtTerm

Measurement ID

10840

Measurement Group

SBR Binding Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The maximum binding (final) age when binding is terminated due to termination of all associated sessions.

Collection Interval

5 min

Peg Condition

The time interval starts when the binding becomes final and stops when binding is terminated due to termination of all associated sessions.

Measurement Scope

Place Association

Recovery

- No action necessary.

3.72.8 SbrAvgBindingAgeAtTerm

Measurement ID

10885

Measurement Group

SBR Binding Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average binding (final) age when binding is terminated due to termination of all associated sessions.

Collection Interval

5 min

Peg Condition

The time interval starts when the binding becomes final and stops when binding is terminated due to termination of all associated sessions.

Measurement Scope

All

Recovery

- No action necessary.

3.72.9 SbrAvgBindingDbRead

Measurement ID

10886

Measurement Group

SBR Binding Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average rate of Binding database reads per second

Collection Interval

5 min

Peg Condition

It is calculated based on the total number of sampled binding database reads during the collection interval.

Measurement Scope

All

Recovery

- No action necessary.

3.72.10 SbrMaxBindingDbRead

Measurement ID

10886

Measurement Group

SBR Binding Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The maximum rate of Binding database reads

Collection Interval

5 min

Peg Condition

At the end of each sample period associated with the average binding database reads, if the maximum value exceeds the current value of this measurement, then the measurement will be updated with the current sample periods value.

Measurement Scope

All

Recovery

- No action necessary.

3.72.11 SbrAvgBindingDbWrite

Measurement ID

10888

Measurement Group

SBR Binding Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average rate of Binding database writes per second

Collection Interval

5 min

Peg Condition

It is calculated based on the total number of sampled binding database writes during the collection interval.

Measurement Scope

All

Recovery

- No action necessary.

3.72.12 SbrMaxBindingDbWrite

Measurement ID

10889

Measurement Group

SBR Binding Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The maximum rate of Binding database writes

Collection Interval

5 min

Peg Condition

At the end of each sample period associated with the average binding database writes, if the maximum value exceeds the current value of this measurement, then the measurement will be updated with the current sample periods value.

Measurement Scope

All

Recovery

- No action necessary.

3.72.13 SbrLockCollisions

Measurement ID

11302

Measurement Group

SBR Binding Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of collisions that occurred periodically while acquiring a lock

Collection Interval

5 min

Peg Condition

Each time a collision occurs while acquiring a lock

Measurement Scope

All

Recovery

- No action necessary.

3.72.14 TmSbrProcessingTime

Measurement ID

11303

Measurement Group

SBR Binding Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The time (in microseconds) to process an event on SBR. The measurement is to measure the average time (ms) taken for SBR to process the stack event received from P-DRA and send back the stack event response to P-DRA.

Collection Interval

5 min

Peg Condition

Each time a stack event is received from P-DRA and is sent back the response to P-DRA

Measurement Scope

All

Recovery

- No action necessary.

3.72.15 SbrEarlySlaveBindingsCreated

Measurement ID

11349

Measurement Group

SBR Binding Performance

Measurement Type

The number of binding capable session initiation requests that were treated as slaves of an existing early binding. This gives an indication of the frequency at which the early binding logic is being executed.

Measurement Dimension

Simple

Description

Single

Collection Interval

5 min

Peg Condition

Each time a binding capable session initiation request is received and all of the following conditions are true:

- The CCR-I matches an existing binding that is in the Early state (i.e. there exists an EarlyMaster sessionRef for the IMSI and APN, or IMSI and PCRF Pool)
- The existing EarlyMaster sessionRef has not been in existence for longer than the Maximum Early Binding Lifetime configured in **Policy DRA**, and then **Configuration**, and then **Network-Wide Options**
- PCRF Pooling is Enabled

Measurement Scope

Network Element, Server Group, Resource Domain, Place, Place Association

Recovery

1. This measurement gives an indication of the frequency at which the early binding mechanism is being exercised.
2. It is recommended to contact [#unique_131](#).

3.72.16 SbrFinalBindingsFollowed

Measurement ID

11351

Measurement Group

SBR Binding Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of binding capable session initiation requests that matched a final binding and were routed using the bound PCRF.

Collection Interval

5 min

Peg Condition

Each time a binding capable session initiation request is received and all of the following conditions are true:

- The CCR-I matches an existing binding that is in the Final state (i.e. there exists a Final sessionRef for the IMSI and APN, or IMSI and PCRF Pool)
- PCRF Pooling is Enabled

Measurement Scope

Network Element, Server Group, Resource Domain, Place, Place Association

Recovery

1. This measurement gives an indication of the frequency at which binding capable session initiation requests are routed according to existing bindings.
2. It is recommended to contact [#unique_131](#).

3.72.17 SbrSlavePollingContinue

Measurement ID

11355

Measurement Group

SBR Binding Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

A count of the number of early binding polling attempts for which the poller was instructed to continue polling.

Collection Interval

5 min

Peg Condition

Each time an Early Binding Slave session polls the Early Binding Master and all of the following conditions are true:

- The Early Binding Master sessionRef still exists in the binding database and is in the EarlyMaster state.
- The Early Binding Slave sessionRef still exists in the binding database
- The Early Binding Master sessionRef has not been in existence for longer than the Maximum Early Binding Lifetime
- PCRF Pooling is Enabled

Measurement Scope

Network Element, Server Group, Resource Domain, Place, Place Association

Recovery

1. This measurement gives an indication of the frequency at slave pollers are asked to continue polling. If this value is equal to or higher than the [SbrEarlySlaveBindingsCreated](#), the Early Binding Polling Interval configured in **Policy DRA**, and then **Configuration**, and then **Network-Wide Options** may be set to a duration too short, causing unnecessary polling attempts. If this value is very low relative to the [SbrEarlySlaveBindingsCreated](#), the Early Binding Polling Interval may be set to a duration too long, causing unnecessary latency for slave sessions.
2. It is recommended to contact [#unique_131](#).

3.72.18 SbrSlavePollingRouteToPcrf

Measurement ID

11356

Measurement Group

SBR Binding Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

A count of the number of early binding polling attempts for which the poller was instructed to route the request to a bound PCRF.

Collection Interval

5 min

Peg Condition

Each time an Early Binding Slave session polls the Early Binding Master and all of the following conditions are true:

- The Early Binding Master sessionRef still exists in the binding database and is in the Final state.
- The Early Binding Slave sessionRef still exists in the binding database
- PCRF Pooling is Enabled

Measurement Scope

Network Element, Server Group, Resource Domain, Place, Place Association

Recovery

1. This measurement gives an indication of the Early Binding Slave sessions whose master sessionRefs became Final and were therefore routed using the bound PCRF. If this value is lower than the [SbrEarlySlaveBindingsCreated](#) value, check the SBR Binding Exception measurement report for measurement [SbrSlavePollingFail](#).
2. It is recommended to contact [#unique_131](#).

3.72.19 SbrPolicyBindingRecsAvg

Measurement ID

11374

Measurement Group

SBR Binding Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average number of active SBR Binding sessions

Collection Interval

5 min

Peg Condition

The average of all SBR Policy Binding Records KPI samples taken during the collection interval (refer to the *DSR Alarms and KPIs Reference* for details about this KPI).

Measurement Scope

All

Recovery

- No action necessary.

3.72.20 SbrPolicyBindingRecsPeak

Measurement ID

11375

Measurement Group

SBR Binding Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The maximum number of active SBR Binding sessions

Collection Interval

5 min

Peg Condition

The maximum of all SBR Policy Binding Records KPI samples taken during the collection interval (refer to the *DSR Alarms and KPIs Reference* for details about this KPI).

Measurement Scope

All

Recovery

- No action necessary.

3.72.21 EvSuspectBindingEventIgnored

Measurement ID

12140

Measurement Group

SBR Binding Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Suspect Binding events that were ignored because they arrived within the Ignore Interval.

Collection Interval

5 min

Peg Condition

Each time a Suspect Binding Removal event is received within the "Suspect Binding Removal Events Ignore Interval" from the last counted suspect binding removal event.

Measurement Scope

All

Recovery

- Modify the "Suspect Binding Removal Events Ignore Interval" value in **Policy and Charging**, and then **Configuration**, and then **Policy DRA**, and then **Network-Wide Options** if the measurement becomes too large.

3.72.22 EvSuspectBindingEventCountReset

Measurement ID

12141

Measurement Group

SBR Binding Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of times a Suspect Binding event resets the Suspect Binding Count because it arrived after the Reset Interval.

Collection Interval

5 min

Peg Condition

Each time a suspect binding removal event is received that does not increment the Suspect Binding Removal Count, because the time interval between this event and the last counted suspect binding removal event is larger than the configured Suspect Binding Removal Events Reset Interval.

Measurement Scope

All

Recovery

- Adjust the "Suspect Binding Removal Events Reset Interval" value in **Policy and Charging**, and then **Configuration**, and then **Policy DRA**, and then **Network-Wide Options** if necessary.

3.72.23 EvSuspectBindingRemoved

Measurement ID

12142

Measurement Group

SBR Binding Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Remove Immediately, Threshold Exceeded, Total)

Description

The number of times a Suspect Binding was removed by a Remove Immediately Suspect Binding Event or if a Suspect Binding Event Count exceeded the configured "Suspect Binding Removal Events Threshold" value.

Collection Interval

5 min

Peg Condition

Each time the binding SBR receives a request from DA-MP to "remove" a suspect binding immediately, or if the Suspect Binding Count for any SessionRef record exceeds the Suspect Binding Removal Events Threshold value.

Note:

This measurement is pegged twice, once for any reason listed above, and once for "Total."

Measurement Scope

All

Recovery

- Adjust the "Suspect Binding Removal Events Threshold" value in **Policy and Charging**, and then **Configuration**, and then **Policy DRA**, and then **Network-**

Wide Options if an unusually large number of measurements occur in a very short time period.

3.73 SBR Binding Exception measurements

The SBR Binding Exception measurement report contains measurements that provide performance information that is specific to the SBR Binding Database.

3.73.1 InitReqRejectedTreatmentConfigToRoute

Measurement ID

11457

Measurement Group

SBR Binding Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of times a binding capable session initiation request is not routed, even though session exceeded treatment is configured to route.

Collection Interval

5 min

Peg Condition

This measurement is incremented by one each time a binding capable session initiation request is not routed, even though session exceeded treatment is configured to route. These are scenarios in which session initiation request is not routed when session exceeded treatment is configured to route:

- Maximum sessions per APN limit is not reached yet but no slots are available
- Maximum sessions per APN limit is reached but binding state is early.
- Maximum sessions per APN limit is reached but the lifetime of existing session to be replaced is less than the Maximum Early Binding Lifetime (configured in **Policy DRA**, and then **Network-Wide Options**)

Measurement Scope

Network

Recovery

- This measurement gives indication that binding-capable session initiation request is not routed even though session exceeded treatment is configured to route. These are scenarios in which session initiation request is not routed when session exceeded treatment is configured to route:
 - Maximum sessions per APN limit is not reached yet but no slots are available
 - Maximum sessions per APN limit is reached but binding state is early

- Maximum sessions per APN limit is reached but the lifetime of existing session to be replaced is less than the Maximum Early Binding Lifetime (configured in **Policy DRA**, and then **Network-Wide Options**)

Each time this measurement is pegged, P-DRA generates:

- Error answer message using the Policy SBR Error result code. The Error-Message AVP contains a three-digit code that indicates the specific reason for the failure
- Event 22719 with the reason in additional information

3.73.2 MaxSessionPerImsiExceeded

Measurement ID

11459

Measurement Group

SBR Binding Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of times the maximum allowed session per IMSI limit is exceeded.

Collection Interval

5 min

Peg Condition

This measurement is incremented by one each time the maximum allowed binding-capable session limit per IMSI is exceeded

Measurement Scope

Network

Recovery

- This measurement gives indication that the maximum allowed session per IMSI limit is exceeded. An IMSI is only allowed to have up to 10 concurrent binding-capable sessions, regardless of limits that may be set for the maximum number of sessions per APN. This measurement is pegged when no per APN limit has been exceeded, yet the IMSI has already used up all 10 of its bound sessions. Verify that the per APN session limits are configured appropriately. If the limits are configured appropriately, verify that the IMSI is not creating session for more than the expected number of APNs. Each time this measurement is pegged, P-DRA generates an error answer message using the Policy SBR Error result code and three-digit code 521.

3.73.3 MaxSessPerApnExceededSisInvocationFail

Measurement ID

11458

Measurement Group
SBR Binding Exception

Measurement Type
Simple

Measurement Dimension
Single

Description
The number of times a bound session was replaced due to Maximum Sessions Per IMSI being exceeded for an APN, but no session release RAR could be sent for the replaced session due to SIS queue full condition.

Collection Interval
5 min

Peg Condition
This measurement is incremented by one each time a bound session is replaced with a new session because the maximum session per APN limit is exceeded but SIS invocation failed because of the SIS queue being full.

Measurement Scope
Network

Recovery

- When a new binding-capable session initiation request would exceed the per-APN session limit, P-DRA may attempt to replace an existing bound session. A bound session may be replaced if it exists for more than early binding lifetime and it is not in the "early" state (Early Master or Early Slave). When a bound session is replaced, P-DRA attempts to send a session release RAR to the session's PCEF to ensure that the PCEF and PCRF are both aware that the session is no longer valid. This measurement is pegged when the attempt to send the session release RAR has failed due to resource exhaustion in the P-DRA system. If this measurement is pegged and neither of these conditions are true, it is recommended to contact [#unique_131](#) for further assistance.
 - Connectivity has been lost with one or more PCRFs from a P-DRA site
 - A binding database reconfiguration is in progress and has been accelerated

3.73.4 SbrCreateBindDbErr

Measurement ID
10845

Measurement Group
SBR Binding Exception

Measurement Type
Simple

Measurement Dimension
Single

Description

The number of errors creating a binding record.

Collection Interval

5 min

Peg Condition

This peg is updated whenever there is an error in creating a binding record.

Measurement Scope

All

Recovery

- No action necessary.

3.73.5 SbrUpdateBindDbErr

Measurement ID

10846

Measurement Group

SBR Binding Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of errors updating a binding record.

Collection Interval

5 min

Peg Condition

This peg is updated whenever there is an error in updating a binding record.

Measurement Scope

All

Recovery

- No action necessary.

3.73.6 SbrRemoveBindDbErr

Measurement ID

10847

Measurement Group

SBR Binding Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of errors removing a suspect binding record.

Collection Interval

5 min

Peg Condition

This peg is updated whenever there is an error in removing a suspect binding record.

Measurement Scope

All

Recovery

- No action necessary.

3.73.7 SbrCreateAltKeyDbErr

Measurement ID

10848

Measurement Group

SBR Binding Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of errors creating an alternate key record.

Collection Interval

5 min

Peg Condition

This peg is updated whenever there is an error in creating an alternate key record.

Measurement Scope

All

Recovery

- No action necessary.

3.73.8 SbrRemoveAltKeyDbErr

Measurement ID

10849

Measurement Group

SBR Binding Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of errors removing an alternate key record.

Collection Interval

5 min

Peg Condition

This peg is updated whenever there is an error in removing an alternate key record.

Measurement Scope

All

Recovery

- No action necessary.

3.73.9 SbrFindBindDbErr

Measurement ID

10880

Measurement Group

SBR Binding Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of errors when encountered for finding a binding record.

Collection Interval

5 min

Peg Condition

This peg is updated whenever there is an error in finding a binding record.

Measurement Scope

All

Recovery

- No action necessary.

3.73.10 SbrEarlyTooLongSrRemoved

Measurement ID

11350

Measurement Group

SBR Binding Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

A count of the number of sessionRefs found to be in the EarlyMaster or EarlySlave state for longer than the Maximum Early Binding Lifetime.

Collection Interval

5 min

Peg Condition

Each time sessionRef is discovered that has been in an early state (i.e. EarlyMaster or EarlySlave) for longer than the Maximum Early Binding Lifetime and the following conditions are true:

- PCRF Pooling is Enabled AND
 - A binding capable session initiation request is received that matches an existing binding and the binding has been in the EarlyMaster state for longer than the Maximum Early Binding Lifetime OR
 - A binding capable session initiation request is received and no slots are available for new sessionRefs, but at least one sessionRef has been in the EarlySlave state for longer than the Maximum Early Binding Lifetime OR
 - A slave session polls a master sessionRef that has been in the EarlyMaster state for longer than the Maximum Early Binding Lifetime

Measurement Scope

Network Element, Server Group, Resource Domain, Place, Place Association

Recovery

1. This measurement gives an indication of the frequency at which binding sessionRefs are discovered in an early state for longer than expected. This unexpected condition could occur if the Maximum Early Binding Lifetime value is configured to be nearly equal to or shorter than the Diameter transaction timer. It could also occur if the binding pSBR was in congestion and load shedding prevented the session from being transitioned from the early state to a final state. In either case the "stuck" sessionRef is removed, preventing it from disrupting further signaling.

2. It is recommended to contact [#unique_131](#).

3.73.11 SbrSlavePollingFail

Measurement ID

11352

Measurement Group

SBR Binding Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of binding capable session initiation requests that were not routed to polling failures. This includes the following: slave sessionRef not found, master sessionRef, master sessionRef found, but existed for longer than the Maximum Early Binding Lifetime.

Collection Interval

5 min

Peg Condition

Each time an Early Binding Slave session polls the Early Binding master and the following conditions are met:

- PCRF Pooling is Enabled AND
 - The Early Binding Master sessionRef no longer exists in the binding database
OR
 - The Early Binding Slave sessionRef no longer exists in the binding database
OR
 - The Early Binding Master sessionRef exists in the binding database in the EarlyMaster state, but has been in existence for longer than the Maximum Early Binding Lifetime

Measurement Scope

Network Element, Server Group, Resource Domain, Place, Place Association

Recovery

1. This measurement gives an indication of the Early Binding Slave sessions whose polling attempts did NOT result in a final binding to route towards. Each time this measurement is pegged, P-DRA generates an error answer message using the Binding Found But Unable To Route Diameter result code. The Error-Message AVP contains a 3-digit code that indicates the specific reason for the failure.
2. It is recommended to contact [#unique_131](#).

3.73.12 SbrSuspectSrRemoved

Measurement ID

11353

Measurement Group

SBR Binding Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

A count of the number of binding sessionRefs removed as a result of the Suspect Binding mechanism.

Collection Interval

5 min

Peg Condition

Each time a binding sessionRef is removed by the suspect binding mechanism (i.e., due to inaccessibility of a PCRF for more than 30 seconds while signaling attempts are being performed).

Measurement Scope

Network Element, Server Group, Resource Domain, Place, Place Association

Recovery

1. This measurement gives an indication of the number of binding sessionRefs that were automatically removed from the Policy DRA binding database as a result of continued inability to route binding capable session initiation requests to a given PCRF.
2. It is recommended to contact [#unique_131](#).

3.74 SBR Session Performance measurements

The Session Binding Repository (SBR) Session Binding Performance measurement report contains measurements that provide performance information specific to the SBR Session Database.

3.74.1 PcaNgnPsSessionSbrDrop

Measurement ID

11465

Measurement Group

PCA NGN-PS Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of NGN-PS related stack events sent to an active Session SBR rejected.

Collection Interval

5 min

Peg Condition

This measurement is pegged each time an NGN-PS related stack event to be forwarded to an active session SBR is rejected due to ComAgent errors.

Measurement Scope

All

Recovery

- Check measurements [CAHSTxDscrdCongSR](#), [CAHSTxDscrdUnkwnRsrc](#), [CAHSTxDscrdIntErrSR](#), and event 19832 from the *Alarms and KPIs Reference* for detailed error causes.

3.74.2 SbrSessionsCreated

Measurement ID

10841

Measurement Group

SBR Session Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of new sessions created.

Collection Interval

5 min

Peg Condition

This peg is updated whenever a new session is created.

Measurement Scope

All

Recovery

- No action necessary.

3.74.3 SbrSessionsRefresh

Measurement ID

10842

Measurement Group

SBR Session Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of existing sessions refreshed.

Collection Interval

5 min

Peg Condition

This peg is updated whenever an existing session is refreshed.

Measurement Scope

All

Recovery

- No action necessary.

3.74.4 SbrSessionsDeleted

Measurement ID

10843

Measurement Group

SBR Session Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of sessions removed.

Collection Interval

5 min

Peg Condition

This peg is updated whenever a session is deleted.

Measurement Scope

All

Recovery

- No action necessary.

3.74.5 SbrAvgSessionAgeTermPerAPN

Measurement ID

10863

Measurement Group

SBR Session Performance

Measurement Type

Average

Measurement Dimension

Arrayed (by APN ID)

Description

The average time interval (in hours) per APN between the time when a session record is created and the time when it is successfully terminated.

Collection Interval

5 min

Peg Condition

The time interval starts when a session record is created as a result of createSession stack event and stops when the session record is terminated successfully as a result of removeSession stack event

Measurement Scope

All

Recovery

- No action necessary.

3.74.6 SbrMaxSessionAgeTermPerAPN

Measurement ID

10864

Measurement Group

SBR Session Performance

Measurement Type

Average

Measurement Dimension

Arrayed (by APN ID)

Description

The maximum time interval (in hours) per APN between the time when a session record is created and the time when it is successfully terminated.

Collection Interval

5 min

Peg Condition

The time interval starts when a session record is created as a result of createSession stack event and stops when the session record is terminated successfully as a result of removeSession stack event

Measurement Scope

All

Recovery

- No action necessary.

3.74.7 SbrAvgSessionDbRead

Measurement ID

10890

Measurement Group

SBR Session Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average rate of Session database reads per second

Collection Interval

5 min

Peg Condition

It is calculated based on the total number of sampled session database reads during the collection interval.

Measurement Scope

All

Recovery

- No action necessary.

3.74.8 SbrMaxSessionDbRead

Measurement ID

10891

Measurement Group

SBR Session Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The maximum rate of Session database reads

Collection Interval

5 min

Peg Condition

At the end of each sample period associated with the average session database reads, if the maximum value exceeds the current value of this measurement, then the measurement will be updated with the current sample periods value

Measurement Scope

All

Recovery

- No action necessary.

3.74.9 SbrAvgSessionDbWrite

Measurement ID

10892

Measurement Group

SBR Session Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average rate of session database writes per second

Collection Interval

5 min

Peg Condition

It is calculated based on the total number of sampled session database writes during the collection interval.

Measurement Scope

All

Recovery

- No action necessary.

3.74.10 SbrMaxSessionDbWrite

Measurement ID

10893

Measurement Group

SBR Session Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The maximum rate of session database writes

Collection Interval

5 min

Peg Condition

At the end of each sample period associated with the average session database writes, if the maximum value exceeds the current value of this measurement, then the measurement will be updated with the current sample periods value.

Measurement Scope

All

Recovery

- No action necessary.

3.74.11 SbrPendingRarLockCollisions

Measurement ID

11304

Measurement Group

SBR Session Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of collisions occurred periodically while acquiring a lock to update PendingRar table.

Collection Interval

5 min

Peg Condition

Each time a collision occurs while acquiring a lock to update PendingRar table.

Measurement Scope

All

Recovery

- No action necessary.

3.74.12 SbrPolicySessionRecsAvg

Measurement ID

11372

Measurement Group

SBR Session Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average number of active SBR Policy sessions

Collection Interval

5 min

Peg Condition

The average of all SBR Policy Session Records KPI samples taken during the collection interval (refer to the *DSR Alarms and KPIs Reference* for details about this KPI).

Measurement Scope

All

Recovery

- No action necessary.

3.74.13 SbrPolicySessionRecsPeak

Measurement ID

11373

Measurement Group

SBR Session Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The maximum number of active SBR Policy sessions.

Collection Interval

5 min

Peg Condition

The maximum of all SBR Policy Session Records KPI samples taken during the collection interval (refer to the *DSR Alarms and KPIs Reference* for details about this KPI).

Measurement Scope

All

Recovery

- No action necessary.

3.74.14 SbrOcSessionsCreated

Measurement ID

11376

Measurement Group

SBR Session Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of new Online Charging sessions created.

Collection Interval

5 min

Peg Condition

Each time a new Online Charging session is successfully created.

Measurement Scope

All

Recovery

- No action necessary.

3.74.15 SbrOcSessionsRefreshed

Measurement ID

11377

Measurement Group

SBR Session Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of new Online Charging sessions refreshed

Collection Interval

5 min

Peg Condition

Each time a new Online Charging session is successfully refreshed.

Measurement Scope

All

Recovery

- No action necessary.

3.74.16 SbrOcSessionsRemoved

Measurement ID

11378

Measurement Group

SBR Session Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of new Online Charging sessions removed.

Collection Interval

5 min

Peg Condition

Each time a new Online Charging session is successfully removed.

Measurement Scope

All

Recovery

- No action necessary.

3.74.17 SbrAvgOcSessionDbReads

Measurement ID

11380

Measurement Group

SBR Session Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average rate of Online Charging Session database reads per second.

Collection Interval

5 min

Peg Condition

The average of all the SBR Online Charging Session DB Read Rate KPI samples taken during the collection interval.

Measurement Scope

All

Recovery

- No action necessary.

3.74.18 SbrMaxOcSessionDbReads

Measurement ID

11381

Measurement Group

SBR Session Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The maximum rate of Online Charging Session database reads per second.

Collection Interval

5 min

Peg Condition

The maximum of all the SBR Online Charging Session DB Read Rate KPI samples taken during the collection interval.

Measurement Scope

All

Recovery

- No action necessary.

3.74.19 SbrAvgOcSessionDbWrites

Measurement ID

11383

Measurement Group

SBR Session Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average rate of Online Charging Session database writes per second.

Collection Interval

5 min

Peg Condition

The average of all the SBR Online Charging Session DB Write Rate KPI samples taken during the collection interval.

Measurement Scope

All

Recovery

- No action necessary.

3.74.20 SbrMaxOcSessionDbWrites

Measurement ID

11384

Measurement Group

SBR Session Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The maximum rate of Online Charging Session database writes per second.

Collection Interval

5 min

Peg Condition

The maximum of all the SBR Online Charging Session DB Write Rate KPI samples taken during the collection interval.

Measurement Scope

All

Recovery

- No action necessary.

3.74.21 SbrAvgOcSessionAgeTermPerApn

Measurement ID

11385

Measurement Group

SBR Session Performance

Measurement Type

Average

Measurement Dimension

Arrayed (by APN ID)

Description

The average time (in hours) per APN between the time when an Online Charging session is created and the time when it is successfully terminated.

Collection Interval

5 min

Peg Condition

The average time interval for each Online Charging session starts when a session record is created as a result of createOcSession stack event and stops when the session record is terminated successfully as a result of removeOcSession stack event.

Measurement Scope

All

Recovery

- No action necessary.

3.74.22 SbrMaxOcSessionAgeTermPerApn

Measurement ID

11386

Measurement Group

SBR Session Performance

Measurement Type

Max

Measurement Dimension

Arrayed (by APN ID)

Description

The maximum time (in hours) per APN between the time when an Online Charging session is created and the time when it is successfully terminated.

Collection Interval

5 min

Peg Condition

The maximum time interval for each Online Charging session starts when a session record is created as a result of createOcSession stack event and stops when the session record is terminated successfully as a result of removeOcSession stack event.

Measurement Scope

All

Recovery

- No action necessary.

3.74.23 SbrOcSessionRecsAvg

Measurement ID

11441

Measurement Group

SBR Session Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average number of active SBR Online Charging sessions

Collection Interval

5 min

Peg Condition

The average of all SBR Online Charging Session Records KPI samples taken during the collection interval (refer to the *DSR Alarms and KPIs Reference* for details about this KPI).

Measurement Scope

All

Recovery

- No action necessary.

3.74.24 SbrOcSessionRecsPeak

Measurement ID

11442

Measurement Group

SBR Session Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The maximum number of active SBR Online Charging sessions

Collection Interval

5 min

Peg Condition

The maximum of all SBR Online Charging Session Records KPI samples taken during the collection interval (refer to the *DSR Alarms and KPIs Reference* for details about this KPI).

Measurement Scope

All

Recovery

- No action necessary.

3.74.25 RxInvokeSisPerRarType

Measurement ID

12150

Measurement Group

SBR Session Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Query, Release NoSessionRef, Release NoSessionId, Release DupSessionRef, Release DuplicateSession, Release CreateSessionRefFail, Release CreateSessionFail, Release Createlpv4AltKeyFail, Release Createlpv6AltKeyFail, Release CreateMsisdnAltKeyFail, Release PcrfNotConfig, Release UpdateBindingFail, Release CreateSessionNotSent, Release CreateBindingNotSent, Release SuspectRuleImmediate Release SuspectRuleThreshold, and RAR Total)

Description

The number of times that the Session Integrity Service received a request to invoke the Session Integrity Service for each RAR type.

Collection Interval

5 min

Peg Condition

Each time a request is received to invoke the Session Integrity Service via `invokeSessionIntegrityService` stack event for each RAR type.



Note:

There will be a separate array value for each type of release.



Note:

This measurement is pegged twice, once for RAR types and once for "Total."

Measurement Scope

All

Recovery

- No action required.

3.74.26 TxInvokeSisResultPerResultCode

Measurement ID

12151

Measurement Group

SBR Session Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Success, Missing SessionRef, SessionRef Not Found, Session Not Found, PolicyClientHost Not Found, Invalid RAR Type, Pending Query RAR Queue Full, Pending Release RAR Queue Full, Unexpected DB Error, and Total)

Description

The number of times that the Session Integrity Service was invoked per result type.

Collection Interval

5 min

Peg Condition

Each time the `invokeSessionIntegrityServiceResult` response is sent out. The array element corresponding to the given result will be pegged.

**Note:**

This measurement is pegged twice, once for result type and once for "Total."

Measurement Scope

All

Recovery

- Modify the "Query RAR Queue Capacity Per Session Server Group" or "Release RAR Queue Capacity Per Session Server Group" in **Policy and Charging**, and then **Configuration**, and then **Policy DRA**, and then **Network-Wide Options**.

3.75 SBR Session Exception measurements

The Session Binding Repository (SBR) Session Exception measurement report contains measurements that provide performance information specific to the SBR Session Database.

3.75.1 PcaNgnPsSbrEventsDrop

Measurement ID

11466

Measurement Group

SBR Session Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of NGN-PS related stack events transmitted between Session SBR and Binding SBR rejected.

Collection Interval

5 min

Peg Condition

This measurement is pegged each time a stack event is transmitted between Session SBR and Binding SBR servers is rejected.

Measurement Scope

All

Recovery

- No action required

3.75.2 SbrCreateSessDbErr

Measurement ID

10850

Measurement Group

SBR Session Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of errors creating a session record.

Collection Interval

5 min

Peg Condition

This peg is updated whenever there is an error in creating a session record.

Measurement Scope

All

Recovery

- No action necessary.

3.75.3 SbrRefreshSessDbErr

Measurement ID

10851

Measurement Group

SBR Session Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of errors refreshing a session record.

Collection Interval

5 min

Peg Condition

This peg is updated whenever there is an error in refreshing a session record.

Measurement Scope

All

Recovery

- No action necessary.

3.75.4 SbrRemSessDbErr

Measurement ID

10852

Measurement Group

SBR Session Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of errors terminating a session record.

Collection Interval

5 min

Peg Condition

This peg is updated whenever there is an error in terminating a session record.

Measurement Scope

All

Recovery

- No action necessary.

3.75.5 SbrFindSessDbErr

Measurement ID

10879

Measurement Group

SBR Session Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of errors when encountered for finding a session record.

Collection Interval

5 min

Peg Condition

This peg is updated whenever there is an error in finding a session record.

Measurement Scope

All

Recovery

- No action necessary.

3.75.6 SbrRemSessRarAttempts

Measurement ID

11301

Measurement Group

SBR Session Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of sessions removed as a result of no response being received in 8 consecutive attempts to query the policy client for existence of the session.

Collection Interval

5 min

Peg Condition

This peg is incremented by one each time a session is removed due to lack of response after the maximum number of attempts to query the policy client have been attempted.

Measurement Scope

Network

Recovery

1. A non-zero value in this field may indicate that a policy client has become inaccessible after creating Diameter sessions on the Policy DRA.
2. If a policy client was purposely removed from service, please disregard this measurement.

3.75.7 SbrCreateOcSessionDbErr

Measurement ID

11387

Measurement Group

SBR Session Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Online Charging session creation errors.

Collection Interval

5 min

Peg Condition

Each time a failure is encountered in creating an Online Charging Session record in the SBR Session database. Online Charging Session record failures include:

- Online Charging Session record already exists (i.e. retransmission)
- Database Access Failure

Measurement Scope

All

Recovery

- No action necessary.

3.75.8 SbrFindOcSessionDbErr

Measurement ID

11388

Measurement Group

SBR Session Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Online Charging session query errors.

Collection Interval

5 min

Peg Condition

Each time a failure is encountered in finding an Online Charging Session record in the SBR Session database.

Measurement Scope

All

Recovery

- No action necessary.

3.75.9 SbrOcSessionNotFound

Measurement ID

11389

Measurement Group

SBR Session Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Online Charging sessions not found.

Collection Interval

5 min

Peg Condition

Each time an Online Charging session record is not found in the SBR Session database.

Measurement Scope

All

Recovery

- No action necessary.

3.75.10 SbrRefreshOcSessionDbErr

Measurement ID

11390

Measurement Group

SBR Session Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Online Charging session refresh errors.

Collection Interval

5 min

Peg Condition

Each time there is a failure in refreshing an Online Charging session record in the SBR Session database.

Measurement Scope

All

Recovery

- No action necessary.

3.75.11 SbrRemoveOcSessionDbErr

Measurement ID

11391

Measurement Group

SBR Session Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Online Charging session removal errors.

Collection Interval

5 min

Peg Condition

Each time there is a failure in deleting an Online Charging Session record from the SBR Session database.

Measurement Scope

All

Recovery

- No action necessary.

3.75.12 TxPendingRarDeletedExceedMax

Measurement ID

12158

Measurement Group

SBR Session Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (by Query, Release, and Total)

Description

The number of pending RARs (Query or Release) that have been removed due to exceeding the maximum send attempts allowed per Query or Release RAR.

Collection Interval

5 min

Peg Condition

Each time a RAR entry in the queue/table is removed for exceeding the maximum attempts value. This measurement is incremented by one for each Query or Release RAR entry removed due to exceeding the maximum Send Attempts per Query or Release RAR value.

Measurement Scope

All

Recovery

- Modify the "Maximum Attempts Per Query RAR" or "Maximum Attempts Per Release RAR" in **Policy and Charging**, and then **Configuration**, and then **Policy DRA**, and then **Network-Wide Options**.

3.76 SCEF measurements

3.76.1 SCEF Device Triggering Exception measurements

3.76.1.1 ExDevTriggSirRoutingFailure

Measurement ID

13424

Measurement Group

SCEF Device Triggering Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Diameter SIR messages that could not be routed by DSR in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented when the SCEF application and/or the underlying Diameter Routing Layer fails to route a SIR message.

 **Note:**

In such a condition, the DRL layer creates an answer (SIA) message with result code 3002 and populates the Local Node's FQDN and Realm in the Origin-Host and Origin-Realm.

Measurement Scope

Network Element, Place Association

Recovery

- Review the SCEF System Options configuration for ART and PRT; and Diameter Application Routing Rules and Peer Routing Rules Tables.

3.76.1.2 ExDevTriggDtrRoutingFailure

Measurement ID

13428

Measurement Group

SCEF Device Triggering Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Diameter DTR messages that could not be routed by DSR in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented when the SCEF application and/or the underlying Diameter Routing Layer fails to route a DTR message.

 **Note:**

In such a condition, the DRL layer creates an answer (DTA) message with result code 3002 and populates the Local Node's FQDN and Realm in the Origin-Host and Origin-Realm.

Measurement Scope

Network Element, Place Association

Recovery

- Review the SCEF System Options configuration for ART and PRT; and Diameter Application Routing Rules and Peer Routing Rules Tables.

3.76.1.3 ExDevTriggResourceNotSupported

Measurement ID

13432

Measurement Group

SCEF Device Triggering Exception

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Device Triggering messages received for an unknown resource by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented when the SCEF application receives an HTTP request message containing the 3GPP defined T8 API name in the resource URI and the resource name does not match the names defined in the *3GPP TS 29.122 T8 Reference Point for Northbound APIs (Release 15, Version 0.4.0)*.

Measurement Scope

Network Element, Place Association

Recovery

- Review the SCS application server configuration for the URI formation rules.

3.76.1.4 ExDevTriggProtocolError

Measurement ID

13433

Measurement Group

SCEF Device Triggering Exception

Measurement Type

Simple

Measurement Dimension

Arrayed on Diameter Application ID

Description

The number of Diameter messages received by the SCEF application that had an application protocol error.

Collection Interval

30 min

Peg Condition

This measurement is incremented when SCEF application detects one of these conditions:

- An SIA message is received that does not contain one or more of these AVPs:
 - User-Identifier AVP with no User-Name AVP
 - T4-Data AVP
- A DRR message is received that does not contain one or more of these AVPs:
 - SM-RP-SMEA AVP
 - User-Identifier with embedded User-Name AVP
 - SM Delivery Outcome T4 AVP

Measurement Scope

Network Element, Place Association

Recovery

- Review the HSS and SMS-SC configuration to isolate the error condition.

3.76.2 SCEF Device Triggering Performance measurements

3.76.2.1 DxDevTriggMsgAll

Measurement ID

13400

Measurement Group

SCEF Device Triggering Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The total number of messages processed by the Device Triggering feature of the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented on each of these occasions:

- An ingress Device Triggering Diameter message is received
- An ingress Device Triggering HTTP message is received
- A Device Triggering Diameter message is generated and transmitted
- A Device Triggering HTTP message is generated and transmitted

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.2.2 DxDevTriggMsgRate

Measurement ID

13401

Measurement Group

SCEF Device Triggering Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of messages processed every second by the Device Triggering feature of the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement calculates the rate at which SCEF application processes Device Triggering messages.

This is a dependent measurement and takes Measurement 13400 as input to calculate rate (per second).

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.2.3 RxDevTriggT8Req

Measurement ID

13402

Measurement Group

SCEF Device Triggering Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 request messages received by the Device Triggering feature of the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time a T8 HTTP message is received by the Device Triggering feature of the SCEF application.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.2.4 TxDevTriggT8Req

Measurement ID

13403

Measurement Group

SCEF Device Triggering Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 request messages generated by the Device Triggering feature of the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the Device Triggering feature generates and sends out a T8 HTTP request message to an SCS Application Server.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.2.5 RxDevTriggDiamReq

Measurement ID

13404

Measurement Group

SCEF Device Triggering Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on Diameter Application ID

Description

The number of Diameter request messages received by the Device Triggering feature of the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time a Diameter request message is received by the Device Triggering feature the SCEF application.

Device Triggering supports Device-Report-Request Diameter request messages.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.2.6 TxDevTriggDiamReq

Measurement ID

13405

Measurement Group

SCEF Device Triggering Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on Diameter Application ID

Description

The number of Diameter request messages generated by the Device Triggering feature of the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time a Diameter request message is generated and transmitted by the Device Triggering feature of the SCEF application.

NIDD generates Device request messages for the Subscriber-Information-Request and Device-Trigger-Request.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.2.7 RxDevTriggT8TransPost

Measurement ID

13406

Measurement Group

SCEF Device Triggering Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Device Triggering transaction Create requests received by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application receives an HTTP POST message with the Device Triggering transaction resource in the URI as defined in *3GPP TS 29.122 T8 Reference Point for Northbound APIs (Release 15, Version 0.4.0)*.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.2.8 TxDevTriggT8TransPostSucc

Measurement ID

13407

Measurement Group

SCEF Device Triggering Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Device Triggering Transaction Create requests that were successfully processed by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an HTTP POST request message with Device Triggering Transaction resource is responded with a 2xx response code by the SCEF application.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.2.9 TxDevTriggT8TransPostRej

Measurement ID

13408

Measurement Group

SCEF Device Triggering Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Device Triggering Transaction Create requests for which a failure was returned by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an HTTP POST request message with Device Triggering Transaction resource is responded with a non-2xx response code by the SCEF application.

Measurement Scope

Network Element, Place Association

Recovery

- The response message may contain an application/problem+json body describing the details of the problem encountered that failed the request.

3.76.2.10 RxDevTriggT8TransGet

Measurement ID

13409

Measurement Group

SCEF Device Triggering Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Device Triggering Individual Transaction queries received by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF application receives an HTTP GET message with an Individual Device Triggering Transaction resource in the URI as defined in *3GPP TS 29.122 T8 Reference Point for Northbound APIs (Release 15, Version 0.4.0)*.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.2.11 TxDevTriggT8TransGetSucc

Measurement ID

13410

Measurement Group

SCEF Device Triggering Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Device Triggering Individual Transaction queries that were successfully responded by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an HTTP GET request message with an Individual Device Triggering Transaction resource is responded with a 2xx response code by the SCEF application.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.2.12 TxDevTriggT8TransGetRej

Measurement ID

13411

Measurement Group

SCEF Device Triggering Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Device Triggering Individual Transaction queries for which a failure was returned by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an HTTP GET request message with an Individual Device Triggering Transaction resource is responded with a non-2xx response code by the SCEF application.

Measurement Scope

Network Element, Place Association

Recovery

- The response message may contain an application/problem+json body describing the details of the problem encountered that failed the request.

3.76.2.13 TxDevTriggT8DlvryRptNotify

Measurement ID

13418

Measurement Group

SCEF Device Triggering Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of Device Triggering Delivery Notification Requests sent by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF sends an HTTP POST request message with a Device Triggering Delivery Notification.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.2.14 RxDevTriggT8DlvryRptNotifySucc

Measurement ID

13419

Measurement Group

SCEF Device Triggering Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of Device Triggering Delivery Notification Response success received by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a 2xx response for HTTP POST request message with a Device Triggering Delivery Notification.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.2.15 RxDevTriggT8DlvryRptNotifyRej

Measurement ID

13420

Measurement Group

SCEF Device Triggering Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of Device Triggering Delivery Notification Response error received by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a Non-2xx response for HTTP POST request message with a Device Triggering Delivery Notification.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.2.16 TxDevTriggSir

Measurement ID

13421

Measurement Group

SCEF Device Triggering Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Diameter SIR messages generated by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application generates and sends a Diameter SIR message to the HSS.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.2.17 RxDevTriggSiaSuccess

Measurement ID

13422

Measurement Group

SCEF Device Triggering Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Diameter SIA messages received by the SCEF application with successful authorization in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application receives a success response from the HSS in a Diameter SIA message.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.2.18 RxDevTriggSiaRej

Measurement ID

13423

Measurement Group

SCEF Device Triggering Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of SIA Reject received from HSS by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application receives an error response from the HSS in a Diameter SIA message.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.2.19 TxDevTriggDtr

Measurement ID

13425

Measurement Group

SCEF Device Triggering Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Diameter DTR messages generated by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application generates and sends a Diameter DTR message to the SMS-SC.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.2.20 RxDevTriggDtaSucc

Measurement ID

13426

Measurement Group

SCEF Device Triggering Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Diameter DTA messages received by the SCEF application with successful result in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application receives a success response from the SMS-SC in a Diameter DTA message.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.2.21 RxDevTriggDtaRej

Measurement ID

13427

Measurement Group

SCEF Device Triggering Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DTA Reject received from SMS-SC by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application receives an error response from the SMS-SC in a Diameter DTA message.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.2.22 RxDevTriggDrr

Measurement ID

13429

Measurement Group

SCEF Device Triggering Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Diameter DRR messages received by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application receives a Diameter DRR message from SMS-SC.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.2.23 TxDevTriggDtaSuccess

Measurement ID

13430

Measurement Group

SCEF Device Triggering Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Diameter DRA messages generated and sent by the SCEF application with successful result in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application generates and sends a success response to the SMS-SC in a Diameter DRA message.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.2.24 TxDevTriggDtaRej

Measurement ID

13431

Measurement Group

SCEF Device Triggering Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DRA Reject sent to SMS-SC by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF application generates and sends an error response to the SMS-SC in a Diameter DRA message.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.2.25 DxDevTriggContextTimerExpiry

Measurement ID

13434

Measurement Group

SCEF Device Triggering Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of Device Trigger contexts that were removed from database as the Context Timer expired.

Collection Interval

30 min

Peg Condition

This measurement is incremented when the Device Trigger Context timer expired for a Device Trigger Context.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.2.26 DxDevTriggDlvrySuccess

Measurement ID

13435

Measurement Group

SCEF Device Triggering Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of Device Triggers delivered successfully.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SMS-SC sends a DRR with delivery outcome saying SUCCESSFUL_TRANSFER.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.2.27 DxDevTriggDlvryFailure

Measurement ID

13436

Measurement Group

SCEF Device Triggering Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of Device Triggers failed to deliver.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SMS-SC sends a:

- DRR with delivery outcome saying the Device Trigger delivery failed
- DTA with error result code

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.2.28 DxDevTriggActConfirmed

Measurement ID

13437

Measurement Group

SCEF Device Triggering Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of Device Trigger actions accepted by SMS-SC.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SMS-SC sends a DTA with success response.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.2.29 DxDevTriggExpired

Measurement ID

13438

Measurement Group

SCEF Device Triggering Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of Device Triggers that were not delivered as Validity Time expired.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SMS-SC sends a DRR with delivery outcome saying VALIDITY_TIME_EXPIRED.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.3 SCEF Enhanced Coverage Restriction Control measurements

The Service Capability Exposure Function (SCEF) Enhanced Coverage Restriction Control measurement report contains measurements that provide enhance coverage restriction control information specific to SCEF.

3.76.3.1 DxEcrMsgAll

Measurement ID

13350

Measurement Group

SCEF ECR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The total number of messages processed by the Enhanced Coverage feature of the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented on each of these occasions:

- An ingress ECR Diameter message is received
- An ingress ECR HTTP message is received
- An ECR Diameter message is generated and transmitted
- An ECR HTTP message is generated and transmitted

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.3.2 DxEcrMsgRateAvg

Measurement ID

13351

Measurement Group

SCEF ECR Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The number of messages processed every second by the Enhanced Coverage feature of the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

The number of messages processed every second by the Enhanced Coverage feature of the SCEF application in the given collection interval.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.3.3 RxEcrT8QueryReq

Measurement ID

13352

Measurement Group

SCEF ECR Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Enhanced Coverage Restriction Query requests received by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time a T8 HTTP message is received by the Enhanced Coverage feature of the SCEF application for Query.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.3.4 TxEcrT8QueryReqSucc

Measurement ID

13353

Measurement Group

SCEF ECR Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Enhanced Coverage Restriction success response sent by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the Enhanced Coverage Restriction feature sends a success response to the SCS/AS for a Query Request.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.3.5 TxEcrT8QueryReqRej

Measurement ID

13354

Measurement Group

SCEF ECR Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Enhanced Coverage Restriction requests for which a failure was returned by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application sends a failure response to the SCS/AS for a Query Request.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.3.6 RxEcrT8AllowedReq

Measurement ID

13355

Measurement Group

SCEF ECR Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Enhanced Coverage Restriction requests for allowed PLMN IDs received by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application receives an HTTP POST message with the allowed PLMN IDs List.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.3.7 TxEcrT8AllowedSucc

Measurement ID

13356

Measurement Group

SCEF ECR Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Enhanced Coverage Restriction success responses for allowed PLMN IDs sent by the SCEF application in the given collection int.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application sends a success response for the allowed PLMN IDs List.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.3.8 TxEcrT8AllowedRej

Measurement ID

13357

Measurement Group

SCEF ECR Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Enhanced Coverage Restriction requests (for allowed PLMN IDs) for which a failure was returned by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application sends a failure response for the allowed PLMN IDs List.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.3.9 RxEcrT8RestrictedReq

Measurement ID

13358

Measurement Group

SCEF ECR Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Enhanced Coverage Restriction requests for restricted PLMN IDs received by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application receives an HTTP POST message with the restricted PLMN IDs List.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.3.10 TxEcrT8RestrictedSucc

Measurement ID

13359

Measurement Group

SCEF ECR Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Enhanced Coverage Restriction success response for restricted PLMN IDs sent by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application sends a success response for the restricted PLMN IDs List.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.3.11 TxEcrT8AllowedRej

Measurement ID

13360

Measurement Group

SCEF ECR Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Enhanced Coverage Restriction requests (for restricted PLMN IDs) for which a failure was returned by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application sends a failure response for the restricted PLMN IDs List.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.3.12 TxEcrCir

Measurement ID

13361

Measurement Group

SCEF ECR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of CIR for Enhanced Coverage Restriction sent to HSS by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF generates and sends a CIR message toward HSS for Enhanced Coverage Restriction.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.3.13 RxEcrCiaSucc

Measurement ID

13362

Measurement Group

SCEF ECR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of CIA Success for Enhanced Coverage Restriction received from HSS by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a CIA message with a success diameter code and no protocol error for Enhanced Coverage Restriction.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.3.14 RxEcrCiaRej

Measurement ID

13363

Measurement Group

SCEF ECR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of CIA Reject for Enhanced Coverage Restriction received from HSS by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a CIA message is not successful or has a protocol error for Enhanced Coverage Restriction.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.3.15 ExEcrCirRoutingFailure

Measurement ID

13364

Measurement Group

SCEF ECR Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of Diameter CIR messages for an Enhanced Coverage Restriction that could not be routed by DSR in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time Diameter receives a CIR message that could not be routed by DSR for Enhanced Coverage Restriction.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.3.16 RxEcrT8PostReq

Measurement ID

13365

Measurement Group

SCEF ECR Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Enhanced Coverage Restriction POST requests received by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time a T8 HTTP POST request is received by the Enhanced Coverage feature of the SCEF application.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.3.17 TxEcrT8PostReqSucc

Measurement ID

13366

Measurement Group

SCEF ECR Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Enhanced Coverage Restriction POST success response sent by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the Enhanced Coverage Restriction feature sends a success response to SCS/AS.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.3.18 TxEcrT8PostReqRej

Measurement ID

13367

Measurement Group

SCEF ECR Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Enhanced Coverage Restriction POST requests for which a failure was returned by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

The number of T8 Enhanced Coverage Restriction POST requests for which a failure was returned by the SCEF application in the given collection interval.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.3.19 RxEcrT8ConfigReq

Measurement ID

13368

Measurement Group

SCEF ECR Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Enhanced Coverage Restriction configuration requests received by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time a T8 HTTP message is received by the Enhanced Coverage feature of the SCEF application for Configure.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.3.20 TxEcrT8ConfigReqSucc

Measurement ID

13369

Measurement Group

SCEF ECR Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Enhanced Coverage Restriction configuration success response sent by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the Enhanced Coverage Restriction feature sends a success response to SCS/AS for the Configure Request.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.3.21 TxEcrT8ConfigReqRej

Measurement ID

13370

Measurement Group

SCEF ECR Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Enhanced Coverage Restriction configuration requests for which a failure was returned by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application sends a failure response to SCS/AS for a Configure Request.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.3.22 ExEcrResourceNotSupported

Measurement ID

13371

Measurement Group

SCEF ECR Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Enhanced Coverage Restriction requests for which resource was not supported by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a message from an unknown resource for a Enhanced Coverage Restriction.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.4 SCEF Exception measurements

The Service Capability Exposure Function (SCEF) Exception measurement report contains measurements that provide exception information specific to SCEF.

3.76.4.1 ExScefDiamApplNotSupported

Measurement ID

13600

Measurement Group

SCEF Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Diameter request messages received by SCEF with an unknown Application ID in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time a Diameter request message is received by the SCEF application containing a Diameter Application ID that is not supported.

Measurement Scope

Network Element, Place Association

Recovery

- Review the Diameter Application Routing Rules configuration to correct any rules that may be allowing routing of unsupported application IDs to SCEF application.

3.76.4.2 ExScefDiamCmdNotSupported

Measurement ID

13602

Measurement Group

SCEF Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Diameter request messages received by SCEF with an unknown Command Code in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time a Diameter request message is received by the SCEF application containing a Diameter Command Code that is not supported.

Measurement Scope

Network Element, Place Association

Recovery

- Review the Diameter Application Routing Rules configuration to correct any rules that may be allowing routing of unsupported command codes to SCEF application.

3.76.4.3 ExScefHttpContentTypeNotSupported

Measurement ID

13603

Measurement Group

SCEF Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of T8 request messages received by SCEF with an unknown Content Type in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an HTTP messages is received by the SCEF application containing a Content Type header with a value that is not supported.

Measurement Scope

Network Element, Place Association

Recovery

- Review the SCS Application Server configuration and/or any HTTP router configuration to find the reason for a non-supported Content Type getting delivered to the SCEF application.

3.76.4.4 ExScefHttpContentFormatNotValid

Measurement ID
13604

Measurement Group
SCEF Exception

Measurement Type
Simple

Measurement Dimension
Single

Description
The number of T8 request messages received by SCEF with a body content that failed validation in the given collection interval.

Collection Interval
30 min

Peg Condition
The json formats of SCEF application and the SCS Application Server may be compared to identify a possible mismatch. If a mismatch is found the same may be fixed either in the SCS Application Server so that the SCEF applications expected format is met or the SCEF's json schema may be tweaked according to the SCS Application Server.



Note:

The SCEF application defines a json schema that must be adhered to by all SCS Application Servers in the deployment.

Measurement Scope
Network Element, Place Association

Recovery

- The json formats of SCEF application and the SCS Application Server may be compared to identify a possible mismatch. If a mismatch is found, the same may be fixed either in the SCS Application Server so that the SCEF application's expected format is met or the SCEF's json schema may be tweaked according to the SCS Application Server. Note that the SCEF application defines a json schema that must be adhered to by all SCS Application Servers in the deployment.

3.76.4.5 ExScefHttpApiNotSupported

Measurement ID

13606

Measurement Group

SCEF Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of T8 request messages received by SCEF with an unknown API in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an HTTP messages is received by the SCEF application containing an API name in the URI that is unknown.

**Note:**

This is most likely a coding error resulting in the message with unknown API name getting routed by the HTTP stack to the application layer.

Measurement Scope

Network Element, Place Association

Recovery

1. Verify the URI being sent to the SCEF application is correct.
2. It is recommended to contact [My Oracle Support](#) for assistance, if needed.

3.76.4.6 ExScefScsNotConfigured

Measurement ID

13607

Measurement Group

SCEF Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of HTTP request messages received by SCEF from an unknown SCS Application server in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time message processing is abandoned by the SCEF application because the SCS Application Server identifier received in the message or retrieved from the stored context is not configured.

Measurement Scope

Network Element, Place Association

Recovery

- This measurement is expected to be pegged for a transient duration when an SCS Application Server is not configured; however, if the measurement gets pegged for a continued interval, it may indicate a required SCS Application Server is not configured. Review the SCS Application Server configuration.

3.76.4.7 ExScefUsbrCreateError

Measurement ID

13608

Measurement Group

SCEF Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of database create requests for which a database failure was received from the USBR server.

Collection Interval

30 min

Peg Condition

This measurement is incremented when the SCEF application attempts to create a record in the USBR database and receives a database failure from the same.

 **Note:**

This measurement should not be pegged for a DUPLICATE KEY error, rather it should be pegged for a real database error, for example, the database was read-only or ran out of memory capacity at the time the create operation was attempted.

Measurement Scope

Network Element, Place Association

Recovery

- Investigate COMCOL measurements and alarms to find the reason for the database operation failure.

3.76.4.8 ExScefUsbrReadError

Measurement ID

13609

Measurement Group

SCEF Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of database read requests for which a database failure was received from the USBR server.

Collection Interval

30 min

Peg Condition

This measurement is incremented when the SCEF application attempts to read a record in the USBR database and receives a database failure from the same.

 **Note:**

This measurement should not be pegged for a NOT FOUND error, rather it should be pegged for a real database error, for example, the database was in a corrupted state such that a read operation could not be performed.

Measurement Scope

Network Element, Place Association

Recovery

- Investigate COMCOL measurements and alarms to find the reason for the database operation failure.

3.76.4.9 ExScefUsbrUpdateError

Measurement ID

13610

Measurement Group

SCEF Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of database update requests for which a database failure was received from the USBR server.

Collection Interval

30 min

Peg Condition

This measurement is incremented when the SCEF application attempts to update a record in the USBR database and receives a database failure from the same.

 **Note:**

This measurement should not be pegged for a NOT FOUND error, rather it should be pegged for a real database error, for example, the database was read-only or ran out of memory capacity at the time the update operation was attempted.

Measurement Scope

Network Element, Place Association

Recovery

- Investigate COMCOL measurements and alarms to find the reason for the database operation failure.

3.76.4.10 ExScefUsbrDeleteError

Measurement ID

13611

Measurement Group

SCEF Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of database delete requests for which a database failure was received from the USBR server.

Collection Interval

30 min

Peg Condition

This measurement is incremented when the SCEF application attempts to delete a record in the USBR database and receives a database failure from the same.

**Note:**

This measurement should not be pegged for a NOT FOUND error, rather it should be pegged for a real database error, for example, the database was read-only at the time the delete operation was attempted.

Measurement Scope

Network Element, Place Association

Recovery

- Investigate COMCOL measurements and alarms to find the reason for the database operation failure.

3.76.4.11 ExScefAcINoMatch

Measurement ID

13612

Measurement Group

SCEF Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of T8 request messages per ScSAs for which ACL is not configured.

Collection Interval

30 min

Peg Condition

This measurement is incremented when the SCEF application receives a T8 request method and ACL is not configured for the ScSAs.

Measurement Scope

Network Element, Place Association

Recovery

- Investigate COMCOL measurements/alarms to find out the reason for the database operation failure.

3.76.4.12 ExUsbrRecordLockFailure

Measurement ID

13632

Measurement Group

SCEF Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of USBR database record lock failures.

Collection Interval

30 min

Peg Condition

This measurement is incremented when the SCEF application fails to acquire a database record lock even after multiple attempts.

Measurement Scope

Network Element, Place Association

Recovery

- Investigate COMCOL measurements/alarms to find out the reason for the database operation failure.

3.76.4.13 ExUsbrRecordLockedError

Measurement ID

13633

Measurement Group

SCEF Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

XXXThe number of database operations failed with reason as record locked in USBR database.

Collection Interval

30 min

Peg Condition

This measurement is incremented when the SCEF application receives a failure from USBR for any operation on a database record as the record is locked by other event at USBR.

Measurement Scope

Network Element, Place Association

Recovery

- Investigate COMCOL measurements/alarms to find out the reason for the database operation failure.

3.76.4.14 ExUsbrRecordLockRequestError

Measurement ID

13634

Measurement Group

SCEF Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of database lock requests for which a failure was received from the USBR server.

Collection Interval

30 min

Peg Condition

This measurement is incremented every time the SCEF application receives a failure response from USBR to acquire a lock for a database record.

Measurement Scope

Network Element, Place Association

Recovery

- Monitor ExUsbrRecordLockFailure to assess if this is a transient failure or a real issue as the record lock may be acquired in next attempt.

3.76.5 SCEF License measurements

3.76.5.1 NetworkEcr

Measurement ID

31980

Measurement Group

License Measurement

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of successful ECRC requests per Network.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time SCEF successfully processes a POST ECRC message.

Measurement Scope

Network Element

Recovery

- No action necessary.

3.76.5.2 SiteEcr

Measurement ID

31981

Measurement Group

License Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed on Network Element

Description

Number of successful ECR Requests per Network Element.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time SCEF successfully processes a POST ECRC Post message per Network Element.

Measurement Scope

Network Element

Recovery

- No action necessary.

3.76.5.3 ScefNetworkElementDiameterMps

Measurement ID

31982

Measurement Group

License Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed on Network Element

Description

Network element Diameter messages per second.

Collection Interval

5 min

Peg Condition

This measurement is incremented when a Diameter request is received or an answer is sent back on the particular Network Element.

Measurement Scope

Network Element

Recovery

- No action necessary.

3.76.5.4 ScefNetworkPeakDiameterMps

Measurement ID

31983

Measurement Group

License Measurement

Measurement Type

Simple

Measurement Dimension

Single

Description

Network wide peak Diameter messages per second for the entire network.

Collection Interval

5 min

Peg Condition

This measurement is incremented when the Network Diameter MPS is detected to be greater than the current network peak Diameter MPS for the day.

Measurement Scope

Network Element

Recovery

- No action necessary.

3.76.5.5 ScefNetworkDiameterMps

Measurement ID

31984

Measurement Group

License Measurement

Measurement Type

Simple

Measurement Dimension

Single

Description

Network wide Diameter messages per second for the entire network.

Collection Interval

5 min

Peg Condition

This measurement is incremented when a Diameter request is received or an answer is sent back on any Network Element under the Network.

Measurement Scope

Network Element

Recovery

- No action necessary.

3.76.5.6 ScefNetworkElementHttpMps

Measurement ID

31985

Measurement Group

License Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed on Network Element

Description

Network element HTTP messages per second.

Collection Interval

5 min

Peg Condition

This measurement is incremented when an HTTP request is received or an answer is sent back on the particular Network Element.

Measurement Scope

Network Element

Recovery

- No action necessary.

3.76.5.7 ScefNetworkPeakHttpMps

Measurement ID

31986

Measurement Group

License Measurement

Measurement Type

Simple

Measurement Dimension

Single

Description

Network-wide peak HTTP messages per second for the entire network.

Collection Interval

5 min

Peg Condition

This measurement is incremented when the network HTTP MPS is detected to be greater than the current network peak HTTP MPS for the day.

Measurement Scope

Network Element

Recovery

- No action necessary.

3.76.5.8 ScefNetworkHttpMps

Measurement ID

31987

Measurement Group

License Measurement

Measurement Type

Simple

Measurement Dimension

Single

Description

Network-wide HTTP messages per second for the entire network.

Collection Interval

5 min

Peg Condition

This measurement is incremented when an HTTP request is received or an answer is sent back on any Network Element under the Network.

Measurement Scope

Network Element

Recovery

- No action necessary.

3.76.5.9 ActiveNiddConfiguration

Measurement ID

31988

Measurement Group

License Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed on Database

Description

Number of Active NIDD Configurations per SBR database.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time SCEF creates a new NIDD Configuration Context in the SBR database.

Measurement Scope

Database

Recovery

- No action necessary.

3.76.5.10 ActiveMonSubscription

Measurement ID

31989

Measurement Group

License Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed on Database

Description

Number of Active Monitoring Subscriptions per SBR database.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time SCEF creates a new Monitoring Subscription context in the SBR database.

Measurement Scope

Database

Recovery

- No action necessary.

3.76.5.11 ActiveDtTransaction

Measurement ID

31990

Measurement Group

License Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed on Database

Description

Number of Active Device Trigger Transactions per SBR database.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time SCEF creates a new Device Trigger Transaction context in the SBR database.

Measurement Scope

Database

Recovery

- No action necessary.

3.76.5.12 ActiveScefSession

Measurement ID

31991

Measurement Group

License Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed on Database

Description

Number of Active Device Trigger Transactions per SBR database.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time SCEF creates a new context (NIDD configuration, Monitoring Subscription, or Device Trigger Transaction) in the SBR database.

Measurement Scope

Database

Recovery

- No action necessary.

3.76.5.13 NetworkScefSessionsCreated

Measurement ID

31992

Measurement Group

License Measurement

Measurement Type

Simple

Measurement Dimension

Single

Description

Total number of successful POSTs per Network.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time SCEF successfully processes POST (NIDD configuration, Monitoring Subscription, or Device Trigger Transaction) messages.

Measurement Scope

Network

Recovery

- No action necessary.

3.76.5.14 SiteScefSessionsCreated

Measurement ID

31993

Measurement Group

License Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed on Network Element

Description

Number of successful POSTs per Network Element.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time SCEF successfully processes POST (NIDD configuration, Monitoring Subscription, or Device Trigger Transaction) messages per Network Element.

Measurement Scope

Network Element

Recovery

- No action necessary.

3.76.5.15 NetworkDeviceTriggerTransaction

Measurement ID

31994

Measurement Group

License Measurement

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of successful POSTs for Device Trigger Transaction per Network.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time SCEF successfully processes POST Device Trigger Transaction messages.

Measurement Scope

Network

Recovery

- No action necessary.

3.76.5.16 NetworkMonitoringSubscription

Measurement ID

31995

Measurement Group

License Measurement

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of successful Monitoring Subscriptions per Network.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time SCEF successfully processes POST Monitoring Subscriptions messages.

Measurement Scope

Network

Recovery

- No action necessary.

3.76.5.17 NetworkNiddConfiguration

Measurement ID

31996

Measurement Group

License Measurement

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of successful NIDD Configurations per Network.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time SCEF successfully processes POST NIDD Configurations Transaction messages.

Measurement Scope

Network

Recovery

- No action necessary.

3.76.5.18 SiteDeviceTriggerTansaction

Measurement ID

31997

Measurement Group

License Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed on Network Element

Description

Number of successful Device Trigger Transactions per Network Element.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time SCEF successfully processes POST Device Trigger Transaction messages per Network Element.

Measurement Scope

Network Element

Recovery

- No action necessary.

3.76.5.19 SiteMonitoringSubscription

Measurement ID

31998

Measurement Group

License Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed on Network Element

Description

Number of successful Monitoring Subscriptions per Network Element.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time SCEF successfully processes POST Monitoring Subscriptions messages per Network Element.

Measurement Scope

Network Element

Recovery

- No action necessary.

3.76.5.20 SiteNiddConfiguration

Measurement ID

31999

Measurement Group

License Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed on Network Element

Description

Number of successful NIDD Configurations per Network Element.

Collection Interval

5 min

Peg Condition

This measurement is incremented each time SCEF successfully processes POST NIDD Configurations messages per Network Element.

Measurement Scope

Network Element

Recovery

- No action necessary.

3.76.6 SCEF Monitoring Performance Measurements

3.76.6.1 DxMonMsgAll

Measurement ID

13200

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The total number of messages processed by the Monitoring Event feature of the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented on each of these occasions:

- An ingress Monitoring Diameter message is received.
- An ingress Monitoring HTTP message is received.
- A Monitoring Diameter message is generated and transmitted.
- A Monitoring HTTP message is generated and transmitted.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.2 DxMonMsgRate

Measurement ID

13201

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of messages processed every second by the Monitoring Event feature of the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

The number of messages processed every second by the Monitoring Event feature of the SCEF application in the given collection interval.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.3 RxMonT8Req

Measurement ID

13202

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

This measurement is incremented each time a T8 HTTP message is received by the Monitoring feature of the SCEF application.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time a T8 HTTP message is received by the Monitoring feature of the SCEF application.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.4 TxMonT8Req

Measurement ID

13203

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 request messages generated by the Monitoring Event feature of the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the Monitoring Event feature generates and sends out a T8 HTTP request message to an SCS application server.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.5 RxMonT8CfgPost

Measurement ID

13204

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Monitoring Configuration Create requests received by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF application receives an HTTP POST message with the Monitoring Configuration resource in the URI.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.6 RxMonT8CfgPostAvg

Measurement ID

13205

Measurement Group

SCEF Monitoring Performance

Measurement Type

Average

Measurement Dimension

Arrayed on SCS Application Server

Description

The average number of T8 Monitoring Configuration Create requests received by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application receives an HTTP POST message with the Monitoring Configuration resource in the URI.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.7 RxMonT8CfgPostPeak

Measurement ID

13206

Measurement Group

SCEF Monitoring Performance

Measurement Type

Max

Measurement Dimension

Arrayed on SCS Application Server

Description

The maximum number of T8 Monitoring Configuration Create requests received by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application receives an HTTP POST message with the Monitoring Configuration resource in the URI.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.8 RxMonT8CfgOneTimePost

Measurement ID

13207

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 One Time Monitoring Configuration Create requests received by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application receives an HTTP POST message for one time monitoring with the Monitoring Configuration resource in the URI.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.9 RxMonT8CfgContinuousPost

Measurement ID

13208

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Continuous Monitoring Configuration Create requests received by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application receives an HTTP POST message for continuous monitoring with the Monitoring Configuration resource in the URI.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.10 TxMonT8CfgPostSucc

Measurement ID

13209

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Monitoring Configuration Create requests that were successfully processed by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application receives an HTTP POST message with the Monitoring Configuration resource in the URI and it is successful.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.11 TxMonT8CfgPostRej

Measurement ID

13210

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Monitoring Configuration Create requests for which a failure was returned by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application receives an HTTP POST message with the Monitoring Configuration resource in the URI.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.12 RxMonT8CfgGet

Measurement ID

13211

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Monitoring Configuration Fetch requests received by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application receives an HTTP GET message with the Monitoring Configuration resource in the URI.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.13 TxMonT8CfgGetSucc

Measurement ID

13212

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Monitoring Configuration Fetch requests that were successfully processed by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application receives an HTTP GET message with the Monitoring Configuration resource in the URI and it is successful.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.14 TxMonT8CfgGetRej

Measurement ID

13213

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Monitoring Configuration Fetch requests for which a failure was returned by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application receives an HTTP GET message with the Monitoring Configuration resource in the URI and it is rejected.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.15 RxMonT8CfgDel

Measurement ID

30214

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Monitoring Configuration Delete requests received by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application receives an HTTP DELETE message with the Monitoring Configuration resource in the URI and is rejected.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.16 TxMonT8CfgDelSucc

Measurement ID

30215

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Monitoring Configuration Delete requests that were successfully processed by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application receives an HTTP DELETE message with the Monitoring Configuration resource in the URI and it is successful.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.17 TxMonT8CfgDelRej

Measurement ID

30216

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 Monitoring Configuration Delete requests for which a failure was returned by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application receives an HTTP DELETE message with the Monitoring Configuration resource in the URI and it is rejected.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.18 RxMonCfgHssDel

Measurement ID

30217

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of Monitoring Configuration Delete requests received from HSS by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application receives a Diameter RIR message from HSS for Event handling as CANCEL.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.19 RxMonCfgHssDelSucc

Measurement ID

13218

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of Monitoring Configuration Delete requests received from HSS that were successfully processed by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application receives a Diameter RIR message from HSS for Event handling as CANCEL and it is successfully processed.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.20 RxMonCfgHssDelRej

Measurement ID

13219

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of Monitoring Configuration Delete requests received from HSS that were successfully processed by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application receives a Diameter RIR message from HSS for Event handling as CANCEL and it is rejected.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.21 DxMonCfgDeleteByDuration

Measurement ID

13220

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of Monitoring Configuration Deleted due to Timer Expiry by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time when Monitoring Configuration Deleted by the SCEF application due to Timer Expiry.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.22 DxMonCfgDeleteByMaxReport

Measurement ID

13221

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of Monitoring Configuration Deleted due to Maximum Report Count Reached by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time when Monitoring Configuration Deleted by the SCEF application due to Maximum Report Count Reached.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.23 TxMonCir

Measurement ID

13222

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on Interface ID

Description

The number of CIR sent to HSS/MME by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF generates and sends a CIR message toward HSS/MME.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.24 RxMonCiaSucc

Measurement ID

13223

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on Interface ID

Description

The number of CIA Successes received from HSS/MME by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a CIA message with a success diameter code and no protocol error.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.25 RxMonCiaRej

Measurement ID

13224

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on Interface ID

Description

The number of CIA Rejects received from HSS/MME by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a CIA message not success or with a protocol error.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.26 RxMonRir

Measurement ID

13225

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on Interface ID

Description

The number of RIR received from HSS/MME by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives an RIR message.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.27 TxMonRiaSucc

Measurement ID

13226

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on Interface ID

Description

The number of RIA Successes sent to HSS/MME by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF sends a success RIA message.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.28 TxMonRiaRej

Measurement ID

13227

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on Interface ID

Description

The number of RIA Rejects sent to HSS/MME by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF sends a not success RIA message.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.29 RxMonDiaReq

Measurement ID

13228

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on Interface ID

Description

The number of Diameter request messages received by the Monitoring feature of the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a Diameter request message.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.30 TxMonDiaReq

Measurement ID

13229

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on Interface ID

Description

The number of Diameter request messages generated by the Monitoring feature of the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF generates a diameter request message.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.31 RxMonRptRcvd

Measurement ID

13230

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on Interface ID

Description

The number of Monitoring reports received from HSS/MME by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a monitoring report.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.32 RxMonRptRcvdAvg

Measurement ID

13231

Measurement Group

SCEF Monitoring Performance

Measurement Type

Average

Measurement Dimension

Arrayed on Interface ID

Description

The average number of Monitoring reports received from HSS/MME by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a monitoring report.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.33 RxMonRptRcvdPeake

Measurement ID

13232

Measurement Group

SCEF Monitoring Performance

Measurement Type

Max

Measurement Dimension

Arrayed on Interface ID

Description

The average number of Monitoring reports received from HSS/MME by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a monitoring report.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.34 DxMonRptSucc

Measurement ID

13233

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on Interface ID

Description

The number of Monitoring reports successfully processed by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time Monitoring reports are received from HSS/MME and successfully processed by SCEF.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.35 DxMonRptRej

Measurement ID

13234

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on Interface ID

Description

The number of Monitoring reports rejected by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time reports are received from HSS/MME and rejected by SCEF.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.36 DxMonRptRejMonTypeMismatch

Measurement ID

13235

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on Interface ID

Description

The number of Monitoring reports rejected due to Mismatch in Monitoring Type between Context Data and message by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time Monitoring reports are received from HSS/MME and rejected by SCEF due to Mismatch in Monitoring Type between the Context Data and message.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.37 DxMonRptRejUserIdentityMismatch

Measurement ID

13236

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on Interface ID

Description

The number of Monitoring reports rejected due to Mismatch in User-Identity between Context Data and message by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time Monitoring reports are received from HSS/MME and rejected by SCEF due to Mismatch in User-Identity between the Context Data and message.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.38 DxMonRptRejDecodeFailed

Measurement ID

13237

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on Interface ID

Description

The number of Monitoring reports rejected due to decode failure by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time Monitoring reports are received from HSS/MME and rejected by SCEF due to a decode failure.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.39 DxMonRptRejScsAsRecNotFound

Measurement ID

13238

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on Interface ID

Description

The number of Monitoring reports rejected due to an invalid SCS/AS present in the Context data by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time a report is received and rejected when SCS/AS received is not present in the SCEF configuration.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.40 DxMonRptRejCtxDataNotFound

Measurement ID

13239

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on Interface ID

Description

The number of Monitoring reports rejected due to Context data not found by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time a report is received and rejected when the context is not found in SCEF.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.41 DxMonRptRejScefIdMismatch

Measurement ID

13240

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on Interface ID

Description

The number of Monitoring reports rejected due to an invalid SCEF-ID received in the message by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time a report is received and rejected due to an invalid SCEF ID received in the message.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.42 ExMonDiamProtocolError

Measurement ID

13241

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on Interface ID

Description

The number of Monitoring feature Diameter messages received by the SCEF application that had a protocol error.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a Diameter message for the Monitoring feature and it has a protocol error.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.43 TxMonT8RptNotification

Measurement ID

13245

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

The number of Monitoring Notification Requests sent by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF sends a Monitoring Notification.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.44 TxMonT8RptNotificationAvg

Measurement ID

13246

Measurement Group

SCEF Monitoring Performance

Measurement Type

Average

Measurement Dimension

Arrayed on SCS/AS

Description

The average number of Monitoring Notification Requests sent by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF sends a Monitoring Notification.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.45 TxMonT8RptNotificationPeak

Measurement ID

13247

Measurement Group

SCEF Monitoring Performance

Measurement Type

Max

Measurement Dimension

Arrayed on SCS/AS

Description

The maximum number of Monitoring Notification Requests sent by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF sends a Monitoring Notification.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.46 TxMonT8RptNotificationSucc

Measurement ID

13248

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

The number of Monitoring Notification Response successes received by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a Monitoring Notification Success Response.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.47 TxMonT8RptNotificationRej

Measurement ID

13249

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

The number of Monitoring Notification Response rejects received by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a Monitoring Notification Reject Response.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.48 RxMonT8CfgPostLocRpt

Measurement ID

13250

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For Location Reporting Monitoring type, the number of T8 Monitoring Configuration Create requests received by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a Configuration request for the Location Reporting Monitoring type.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.49 TxMonT8CfgPostSuccLocRpt

Measurement ID

13252

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For Location Reporting Monitoring type, the number of T8 Monitoring Configuration Create requests for which a failure was returned by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a Configuration request for the Location Reporting Monitoring type and it is rejected.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.50 DxMonCfgDelLocRpt

Measurement ID

13253

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For Location Reporting Monitoring type, the number of monitoring configuration deleted (due to T8 Delete Request, HSS Delete Request, Timer Expiry, or Maximum report reached) by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the number of monitoring configuration deleted (due to T8 Delete Request, HSS Delete Request, Timer Expiry, or Maximum report reached) by the SCEF application for the Location Reporting Monitoring type.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.51 TxMonT8RptNotifyLocRpt

Measurement ID

13254

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For Location Reporting Monitoring type, the number of Monitoring Notification Requests sent by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF sends a Monitoring Notification for the Location Reporting Monitoring type.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.52 RxMonT8CfgPostLossOfConn

Measurement ID

13255

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For Loss Of Connectivity Monitoring type, the number of T8 Monitoring Configuration Create requests received by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a Configuration request for the Loss Of Connectivity Monitoring type.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.53 TxMonT8CfgPostSuccLossOfConn

Measurement ID

13256

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For Loss Of Connectivity Monitoring type, the number of T8 Monitoring Configuration Create requests that were successfully processed by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a Configuration request for the Loss Of Connectivity Monitoring type and it is successfully processed.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.54 TxMonT8CfgPostRejLossOfConn

Measurement ID

13257

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For Loss Of Connectivity Monitoring type, the number of T8 Monitoring Configuration Create requests for which a failure was returned by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a Configuration request for the Loss Of Connectivity Monitoring type and it is rejected.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.55 DxMonCfgDelLossOfConn

Measurement ID

13258

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For Loss Of Connectivity Monitoring type, the number of monitoring configuration deleted (due to T8 Delete Request, HSS Delete Request, Timer Expiry, or Maximum report reached) by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the number of monitoring configuration deleted (due to T8 Delete Request, HSS Delete Request, Timer Expiry or Maximum report reached) by the SCEF application for a Loss Of Connectivity type.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.56 TxMonT8RptNotifyLossOfConn

Measurement ID

13259

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For Loss Of Connectivity Monitoring type, the number of Monitoring Notification Requests sent by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF sends a Monitoring Notification for the Loss Of Connectivity Monitoring type.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.57 RxMonT8CfgPostUEReach

Measurement ID

13260

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For UE Reachability Monitoring type, the number of T8 Monitoring Configuration Create requests received by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a Configuration request for the UE Reachability Monitoring type.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.58 TxMonT8CfgPostSuccUEReach

Measurement ID

13261

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For UE Reachability Monitoring type, the number of T8 Monitoring Configuration Create requests that were successfully processed by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a Configuration request for the UE Reachability Monitoring type and it successfully processed.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.59 TxMonT8CfgPostRejUEReach

Measurement ID

13262

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For UE Reachability Monitoring type, the number of T8 Monitoring Configuration Create requests for which a failure was returned by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a Configuration request for the UE Reachability Monitoring type and it is rejected.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.60 DxMonCfgDelUEReach

Measurement ID

13263

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For UE Reachability Monitoring type, the number of monitoring configuration deleted (due to T8 Delete Request, HSS Delete Request, Timer Expiry, or Maximum report reached) by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the number of monitoring configuration deleted (due to T8 Delete Request, HSS Delete Request, Timer Expiry, or Maximum report reached) by the SCEF application the UE Reachability type.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.61 TxMonT8RptNotifyUEReach

Measurement ID

13264

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For UE Reachability Monitoring type, the number of Monitoring Notification Requests sent by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF sends a Monitoring Notification for the UE Reachability Monitoring type.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.62 RxMonT8CfgPostUEReachIdleStat

Measurement ID

13265

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For UE Reachability And Idle Status Indication Monitoring type, the number of T8 Monitoring Configuration Create requests received by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a Configuration request for the UE Reachability And Idle Status Indication.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.63 TxMonT8CfgPostSuccUEReachIdleStat

Measurement ID

13266

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For UE Reachability And Idle Status Indication Monitoring type, the number of T8 Monitoring Configuration Create requests that were successfully processed by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a Configuration request for the UE Reachability And Idle Status Indication Monitoring type and it successfully processed.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.64 TxMonT8CfgPostRejUEReachIdleStat

Measurement ID

13267

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For UE Reachability And Idle Status Indication Monitoring type, the number of T8 Monitoring Configuration Create requests for which a failure was returned by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a Configuration request for an UE Reachability And Idle Status Indication Monitoring type and it is rejected.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.65 DxMonCfgDelUEReachIdleStat

Measurement ID

13268

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For UE Reachability And Idle Status Indication Monitoring type, the number of monitoring configuration deleted (due to T8 Delete Request, HSS Delete Request, Timer Expiry, or Maximum report reached) by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the number of monitoring configuration deleted (due to T8 Delete Request, HSS Delete Request, Timer Expiry, or Maximum report reached) by the SCEF application an UE Reachability And Idle Status Indication type.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.66 TxMonT8RptNotifyUEReachIdleStat

Measurement ID

13269

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For UE Reachability And Idle Status Indication Monitoring type, the number of Monitoring Notification Requests sent by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF sends a Monitoring Notification for UE Reachability And Idle Status Indication Monitoring type.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.67 RxMonT8CfgPostRoamStat

Measurement ID

13270

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For Roaming Status Monitoring type, the number of T8 Monitoring Configuration Create requests received by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a Configuration request for the Roaming Status Monitoring type.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.68 TxMonT8CfgPostSuccRoamStat

Measurement ID

13271

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For Roaming Status Monitoring type, the number of T8 Monitoring Configuration Create requests that were successfully processed by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a Configuration request for the Roaming Status Monitoring type and it successfully processed.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.69 TxMonT8CfgPostRejRoamStat

Measurement ID

13272

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For Roaming Status Monitoring type, the number of T8 Monitoring Configuration Create requests for which a failure was returned by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a Configuration request for the Roaming Status Monitoring type and it is rejected.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.70 DxMonCfgDelRoamStat

Measurement ID

13273

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For Roaming Status Monitoring type, the number of monitoring configuration deleted (due to T8 Delete Request, HSS Delete Request, Timer Expiry, or Maximum report reached) by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the number of monitoring configuration deleted (due to T8 Delete Request, HSS Delete Request, Timer Expiry, or Maximum report reached) by the SCEF application a Roaming Status type.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.71 TxMonT8RptNotifyRoamStat

Measurement ID

13274

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For Roaming Status Monitoring type, the number of Monitoring Notification Requests sent by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF sends a Monitoring Notification for the Roaming Status Monitoring type.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.72 RxMonT8CfgPostDDNFail

Measurement ID

13275

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For DDN Failure Monitoring type, the number of T8 Monitoring Configuration Create requests received by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a Configuration request for the DDN Failure Monitoring type.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.73 TxMonT8CfgPostSuccDDNFail

Measurement ID

13276

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For DDN Failure Monitoring type, the number of T8 Monitoring Configuration Create requests that were successfully processed by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a Configuration request for the DDN Failure Monitoring type and it successfully processed.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.74 TxMonT8CfgPostRejDDNFail

Measurement ID

13277

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For DDN Failure Monitoring type, the number of T8 Monitoring Configuration Create requests for which a failure was returned by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a Configuration request for the DDN Failure Monitoring type and it is rejected.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.75 DxMonCfgDelDDNFail

Measurement ID

13278

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For DDN Failure Monitoring type, the number of monitoring configuration deleted (due to T8 Delete Request, HSS Delete Request, Timer Expiry, or Maximum report reached) by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the number of monitoring configuration deleted (due to T8 Delete Request, HSS Delete Request, Timer Expiry, or Maximum report reached) by the SCEF application a DDN Failure type.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.76 TxMonT8RptNotifyDDNFail

Measurement ID

13279

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For DDN Failure Monitoring type, the number of Monitoring Notification Requests sent by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF sends a Monitoring Notification for the DDN Failure Monitoring type.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.77 RxMonT8CfgPostDDNFailIdle

Measurement ID

13280

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For DDN Failure and idle status indication Monitoring type, the number of T8 Monitoring Configuration Create requests received by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a Configuration request for the DDN Failure and Idle Status Indication Monitoring type.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.78 TxMonT8CfgPostSuccDDNFailIdleStat

Measurement ID

13281

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For DDN Failure and idle status indication Monitoring type, the number of T8 Monitoring Configuration Create requests that were successfully processed by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives Configuration request for a DDN Failure Monitoring and Idle Status Indication Monitoring type and it successfully processed.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.79 TxMonT8CfgPostRejDDNFailIdleStat

Measurement ID

13282

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For DDN Failure and idle status indication Monitoring type, the number of T8 Monitoring Configuration Create requests for which a failure was returned by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives Configuration request for a DDN Failure and Idle Status Indication Monitoring type and it is rejected.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.80 DxMonCfgDelDDNFailIdleStat

Measurement ID

13283

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For DDN Failure and Idle Status Indication Monitoring type, the number of monitoring configuration deleted (due to T8 Delete Request, HSS Delete Request, Timer Expiry, or Maximum report reached) by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the number of monitoring configuration deleted (due to T8 Delete Request, HSS Delete Request, Timer Expiry, or Maximum report reached) by the SCEF application a DDN Failure and Idle Status Indication Monitoring type.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.81 TxMonT8RptNotifyDDNFailIdleStat

Measurement ID

13284

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For DDN Failure and Idle Status Indication Monitoring type, the number of Monitoring Notification Requests sent by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF sends a Monitoring Notification for the DDN Failure and Idle Status Indication Monitoring type.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.82 RxMonT8CfgPostNumOfUEs

Measurement ID

13285

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For Number of UEs Monitoring type, the number of T8 Monitoring Configuration Create requests received by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a Configuration request for the Number of UEs Monitoring type.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.83 TxMonT8CfgPostSuccNumOfUEs

Measurement ID

13286

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For Number of UEs Monitoring type, the number of T8 Monitoring Configuration Create requests that were successfully processed by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a Configuration request for the Number of UEs Monitoring type and it successfully processed.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.84 TxMonT8CfgPostRejNumOfUEs

Measurement ID

13287

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For Number of UEs Monitoring type, the number of T8 Monitoring Configuration Create requests for which a failure was returned by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives Configuration request for a Number of UEs Monitoring type and it is rejected.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.85 RxMonT8CfgPostIMSIAsscoChg

Measurement ID

13290

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For Change Of IMSI IMEI(SV) Association type, the number of T8 Monitoring Configuration Create requests received by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a Configuration request for the Change Of IMSI IMEI (SV) Association Monitoring type.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.86 TxMonT8CfgPostSuccIMSIAsscoChg

Measurement ID

13291

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For Change Of IMSI IMEI(SV) Association Monitoring type, the number of T8 Monitoring Configuration Create requests that were successfully processed by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a Configuration request for the Change Of IMSI IMEI (SV) Association Monitoring type and it successfully processed.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.87 TxMonT8CfgPostRejIMSIAsscoChg

Measurement ID

13292

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For Change Of IMSI IMEI(SV) Association Monitoring type, the number of T8 Monitoring Configuration Create requests for which a failure was returned by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a Configuration request for the Change Of IMSI IMEI (SV) Association Monitoring type and it is rejected.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.88 DxMonCfgDelIMSIAsscoChg

Measurement ID

13293

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For Change Of IMSI IMEI(SV) Association Monitoring type, the number of monitoring configuration deleted (due to T8 Delete Request, HSS Delete Request, Timer Expiry, or Maximum report reached) by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the number of monitoring configuration deleted (due to T8 Delete Request, HSS Delete Request, Timer Expiry, or Maximum report reached) by the SCEF application for a Change Of IMSI IMEI (SV) Association type.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.89 TxMonT8RptNotifyIMSIAsscoChg

Measurement ID

13294

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For Change Of IMSI IMEI(SV) Monitoring type, the number of Monitoring Notification Requests sent by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF sends a Monitoring Notification for the Change Of IMSI IMEI (SV) Monitoring type.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.90 RxMonT8CfgPostCommFail

Measurement ID

13295

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For Communication Failure Monitoring type, the number of T8 Monitoring Configuration Create requests received by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a Configuration request for the Communication Failure Monitoring type.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.91 TxMonT8CfgPostSuccCommFail

Measurement ID

13296

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For Communication Failure Monitoring type, the number of T8 Monitoring Configuration Create requests that were successfully processed by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a Configuration request for the Communication Failure Monitoring type and it is successfully processed.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.92 TxMonT8CfgPostRejCommFail

Measurement ID

13297

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For Communication Failure Monitoring type, the number of T8 Monitoring Configuration Create requests for which a failure was returned by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a Configuration request for the Communication Failure Monitoring type and it is rejected.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.93 DxMonCfgDelCommFail

Measurement ID

13298

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For Communication Failure Monitoring type, the number of monitoring configuration deleted (due to T8 Delete Request, HSS Delete Request, Timer Expiry, or Maximum report reached) by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the number of monitoring configuration deleted (due to T8 Delete Request, HSS Delete Request, Timer Expiry, or Maximum report reached) by the SCEF application a Communication Failure Monitoring Type.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.94 TxMonT8RptNotifyCommFail

Measurement ID

13299

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

For Communication Failure Monitoring type, the number of Monitoring Notification Requests sent by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF sends a Monitoring Notification for the Communication Failure Monitoring type.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.95 ExMonCirRoutingFailure

Measurement ID

13300

Measurement Group

SCEF Monitoring Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of Diameter CIR messages that could not be routed by DSR in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time a Diameter CIR message could not be routed by DSR.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.6.96 ExMonResourceNotSupported

Measurement ID

13301

Measurement Group

SCEF Monitoring Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS/AS

Description

The number of T8 Monitoring messages received for an unknown resource by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF receives a message from an unknown resource.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7 SCEF NIDD Performance Measurement Group

The Service Capability Exposure Function (SCEF) NIDD Performance measurement report contains measurements that provide performance information specific to SCEF NIDD.

3.76.7.1 DxNiddMsgAll

Measurement ID

13000

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The total number of messages processed by the NIDD feature of SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented on each of the following occasions:

- An ingress NIDD Diameter message is received
- An ingress NIDD HTTP message is received
- An NIDD Diameter message is generated and transmitted
- An NIDD HTTP message is generated and transmitted

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.2 DxNiddMsgRate

Measurement ID

13001

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of messages processed every second by the NIDD feature of SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement calculates the rate at which SCEF application processes NIDD messages.

This is a dependent measurement and takes Measurement 13000 as input to calculate rate (per second).

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.3 RxNiddT8Req

Measurement ID

13002

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 request messages received by the NIDD feature of SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time a T8 HTTP message is received by the NIDD feature of SCEF application.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.4 TxNiddT8Req

Measurement ID

13003

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 request messages generated by the NIDD feature of SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the NIDD feature generates and sends out a T8 HTTP request message to an SCS Application Server.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.5 RxNiddT8ConfigurationPost

Measurement ID

13004

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD Configuration Create requests received by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF application receives an HTTP POST message with the NIDD Configuration resource in the URI.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.6 TxNiddT8ConfigurationPostSuccess

Measurement ID

13005

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD Configuration Create requests that were successfully processed by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an HTTP POST request message with NIDD Configuration resource is responded with a 2xx response code by SCEF application.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.7 RxNiddT8ConfigurationPatch

Measurement ID

13007

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD Configuration Update requests received by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF application receives an HTTP PATCH or PUT message with the NIDD Configuration resource in the URI.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.8 TxNiddT8ConfigurationPatchSuccess

Measurement ID

13008

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD Configuration Update requests that were successfully processed by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an HTTP PATCH or PUT request message with NIDD Configuration resource is responded with a 2xx response code by SCEF application.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.9 TxNiddT8ConfigurationDelete

Measurement ID

13010

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD Configuration Delete requests received by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF application receives an HTTP DELETE message with the NIDD Configuration resource in the URI.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.10 TxNiddT8ConfigurationDeleteSuccess

Measurement ID

13011

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD Configuration Delete requests that were successfully processed by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an HTTP DELETE request message with NIDD Configuration resource is responded with a 2xx response code by SCEF application.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.11 RxNiddT8ConfigurationGet

Measurement ID

13013

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD Individual Configuration queries received by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF application receives an HTTP GET message with an Individual NIDD Configuration resource in the URI.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.12 TxNiddT8ConfigurationGetSuccess

Measurement ID

13014

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD Individual Configuration queries that were successfully responded by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an HTTP GET request message with an Individual NIDD Configuration resource is responded with a 2xx response code by SCEF application.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.13 RxNiddT8DIDataPost

Measurement ID

13016

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD new Downlink Data requests received by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF application receives an HTTP POST message with NIDD Downlink Data Delivery resource in the URI.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.14 TxNiddT8DIDataPostSuccess

Measurement ID

13017

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD new Downlink Data requests that were successfully processed by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an HTTP POST request message with NIDD Downlink Data Delivery resource is responded with a 2xx response code by SCEF application.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.15 RxNiddT8DIDataPut

Measurement ID

13019

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD Downlink Data update requests that were successfully processed by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF application receives an HTTP PUT message with an Individual NIDD Downlink Data Delivery resource in the URI.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.16 TxNiddT8DIDDataPutSuccess

Measurement ID

13020

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD Downlink Data update requests that were successfully processed by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an HTTP PUT request message with an Individual NIDD Downlink Data Delivery resource is responded with a 2xx response code by SCEF application.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.17 RxNiddT8DIDataGet

Measurement ID

13022

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD Individual Downlink Data queries received by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF application receives an HTTP GET message with an Individual NIDD Downlink Data Delivery resource in the URI.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.18 TxNiddT8DIDataGetSuccess

Measurement ID

13023

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD Individual Downlink Data queries that were successfully responded by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an HTTP GET request message with an Individual NIDD Downlink Data Delivery resource is responded with a 2xx response code by SCEF application.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.19 TxNiddT8UIData

Measurement ID

13025

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD Uplink Data notifications sent by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF application sends an HTTP POST message to the SCS Application Server to notify an uplink data message.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.20 RxNiddDiamReq

Measurement ID

13026

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of Diameter request messages received by the NIDD feature of SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time a Diameter request message is received by the NIDD feature SCEF application.

The Diameter request messages supported by NIDD are:

- Connection-Management-Request
- MO-Data-Request

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.21 TxNiddDiamReq

Measurement ID

13027

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of Diameter request messages generated by the NIDD feature of SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time a Diameter request message is generated and transmitted by the NIDD feature of SCEF application.

The Diameter request messages generated by NIDD are:

- NIDD-Information-Request
- Connection-Management-Request

- MT-Data-Request

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.22 RxNiddCmrEstablish

Measurement ID

13028

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Diameter CMR Establishment messages received by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF application receives a Diameter CMR request message with the Connection Action set to *CONNECTION_ESTABLISHMENT*.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.23 TxNiddCmaEstablishSuccess

Measurement ID

13029

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Diameter CMR Establishment messages that were successfully processed by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an ingress Diameter CMR message with a Connection-Action value *CONNECTION_ESTABLISHMET* is processed successfully and responded with a result code of 2001.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.24 RxNiddCmrUpdate

Measurement ID

13031

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Diameter CMR Update messages received by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF application receives a Diameter CMR request message with the Connection Action set to *CONNECTION_UPDATE*.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.25 TxNiddCmaUpdateSuccess

Measurement ID

13032

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Diameter CMR Update messages that were successfully processed by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an ingress Diameter CMR message with a Connection-Action value *CONNECTION_UPDATE* is processed successfully and responded with a result code of 2001.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.26 RxNiddCmrRelease

Measurement ID

13034

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Diameter CMR Release messages received by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF application receives a Diameter CMR request message with the Connection Action set to *CONNECTION_RELEASE*.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.27 TxNiddCmaReleaseSuccess

Measurement ID

13035

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Diameter CMR Release messages that were successfully processed by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an ingress Diameter CMR message with a Connection-Action value *CONNECTION_RELEASE* is processed successfully and responded with a result code of 2001.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.28 RxNiddOdr

Measurement ID

13037

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Diameter ODR messages received by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF application receives a Diameter ODR request message.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.29 TxNiddOdaSuccess

Measurement ID

13038

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Diameter ODR messages that were successfully processed by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an ingress Diameter OMR message is processed successfully and responded with a result code of 2001.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.30 TxNiddNir

Measurement ID

13040

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Diameter NIR messages generated by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF application generates and sends a Diameter NIR message to the HSS.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.31 RxNiddNiaSuccess

Measurement ID

13041

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Diameter NIA messages received by SCEF application with successful authorization in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF application receives a successful authorization from the HSS in a Diameter NIA message.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.32 DxNiddGrantExpiry

Measurement ID

13050

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of NIDD Configurations that were removed as the Granted Validity Time expired.

Collection Interval

30 min

Peg Condition

This measurement is incremented when the Authorization Grant provided by the HSS for an NIDD configuration expires.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.33 DxNiddDIDataBuffered

Measurement ID

13052

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of NIDD Downlink Data that were buffered by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented when a Downlink Data Delivery request is received from an SCS Application Server, but the PDN connection is either not established or the UE is not available, because of which the data packet needs to be buffered.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.34 DxNiddBufferedDIDataReplace

Measurement ID

13054

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of buffered NIDD Downlink Data that were requested to be replaced by the SCS Application Server in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an HTTP PUT message for an Individual Downlink Data Delivery resource is processed and the data is successfully replaced.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.35 DxNiddBufferedDIDataDelete

Measurement ID

13055

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of buffered NIDD Downlink Data that were requested to be deleted by the SCS Application Server in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an HTTP PUT message for an Individual Downlink Data Delivery resource is processed and the data is successfully deleted in one of the following scenarios:

- The *data* field was absent in the Downlink Data Delivery message.
- The *data* field was empty in the Downlink Data Delivery message.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.36 TxNiddBufferedDlDataSuccess

Measurement ID

13056

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD Downlink Data Delivery success notifications sent by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented when an NIDD Downlink Data Delivery Status Notification is sent to the SCS Application Server with a Delivery Status of "SUCCESS" for a previously buffered Downlink Data packet. A data retransmission may be triggered by one of the following conditions:

- A PDN connection got established.
- A CMR Update indicated that the UE is now reachable.

- A Retransmission Timer expired.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.37 DxNiddBufferedDIDataDurationAvg

Measurement ID

13057

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The average time in seconds for which a Downlink Data was buffered by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is not pegged directly, rather is the outcome of a SysMetric that measures the duration for which a Downlink Data packet was buffered by SCEF. The SysMetric is updated each time a buffered Data packet exits the queue as a result of the successful delivery or a permanent failure.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.38 DxNiddBufferedDIDataDurationPeak

Measurement ID

13058

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The maximum time in seconds for which a Downlink Data was buffered by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is not pegged directly, rather is the outcome of a SysMetric that measures the duration for which a Downlink Data packet was buffered by SCEF. The SysMetric is updated each time a buffered Data packet exits the queue as a result of the successful delivery or a permanent failure.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.39 DxNiddBufferedDIDataQueueAvg

Measurement ID

13059

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The average number for Downlink Data messages buffered for a UE by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is not pegged directly, rather is the outcome of a SysMetric that measures the count of Downlink Data packet buffered by SCEF for a given UE. The SysMetric is updated each time a Data packet enters or exits the queue.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.40 DxDiddBufferedDIDataQueuePeak

Measurement ID

13060

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The maximum number for Downlink Data messages buffered for a UE by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is not pegged directly, rather is the outcome of a SysMetric that measures the count of Downlink Data packet buffered by SCEF for a given UE. The SysMetric is updated each time a Data packet enters or exits the queue.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.41 DxDiddDataDurationTimerExpiry

Measurement ID

13062

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number Data Duration Timers that expired in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time Data Duration Timer expires and the Timer Expiry is processed by the SCEF application.

 **Note:**

In the event of multiple timers expiry close to each other such that the expiry events are picked up together (in a batch), only one of the events are processed in the following order of precedence:

- Grant Timer Expiry
- Data Duration Timer Expiry
- Retransmission Timer Expiry

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.42 DxNiddRetxTimerExpiry

Measurement ID

13063

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number Retransmission Timers that expired in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time Data Retransmission Timer expires and the Timer Expiry is processed by the SCEF application.

 **Note:**

In the event of multiple timers expiry close to each other such that the expiry events are picked up together (in a batch), only one of the events are processed in the following order of precedence:

- Grant Timer Expiry
- Data Duration Timer Expiry
- Retransmission Timer Expiry

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.43 DxNiddDIDataBytes

Measurement ID

13064

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The volume of downlink data in bytes that was transmitted through SCEF in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented by the data size (in bytes), each time a Downlink Data Packet is successfully delivered to the MME/SGSN.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.44 DxNiddUIDataBytes

Measurement ID

13065

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The volume of uplink data in bytes that was transmitted through SCEF in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented by the data size (in bytes), each time a Uplink Data Packet is received from the MME/SGSN.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.45 TxNiddCmrRelease

Measurement ID

13070

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Diameter CMR Release messages generated by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF application generates a Diameter CMR request message with the Connection Action set to *CONNECTION_RELEASE*.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.46 RxNiddT8DIDataDelete

Measurement ID

13073

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD Individual Downlink Data Delete received by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application receives an HTTP DELETE message with an NIDD Individual Downlink Data resource in the URI.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.47 TxNiddT8DIDataDeleteSuccess

Measurement ID

13074

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD Individual Downlink Data Delete that were successfully responded by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an HTTP DELETE request message with an NIDD Individual Downlink Data resource is responded with a 2xx response code by the SCEF application.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.48 RxNiddT8DIDataGetAll

Measurement ID

13076

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD Downlink Data queries received by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time the SCEF application receives an HTTP GET message for a NIDD Downlink Data Delivery resource in the URI.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.7.49 TxNiddT8DIDataGetAllSuccess

Measurement ID

13077

Measurement Group

SCEF NIDD Performance

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD Downlink Data queries that were successfully responded by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an HTTP GET request message for NIDD Downlink Data Delivery resource is responded with a 2xx response code by the SCEF application.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.8 SCEF NIDD Exception Measurement Group

The Service Capability Exposure Function (SCEF) NIDD Exception measurement report contains measurements that provide exception information specific to SCEF NIDD.

3.76.8.1 TxNiddT8ConfigurationPostFailure

Measurement ID

13006

Measurement Group

SCEF NIDD Exception

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD Configuration Create requests for which a failure was returned by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an HTTP POST request message with NIDD Configuration resource is responded with a non-2xx response code by SCEF application.

Measurement Scope

Network Element, Place Association

Recovery

- The response message may contain an application/problem+json body describing the details of the problem encountered that failed the request.

Possible causes may be:

- HSS did not authorize the NIDD configuration request.
- The Configuration ID has been reused and conflicts with an existing configuration.
- Some OAM configuration (for example, APN) is inconsistent with the core network.

3.76.8.2 TxNiddT8ConfigurationPatchFailure

Measurement ID

13009

Measurement Group

SCEF NIDD Exception

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD Configuration Update requests for which a failure was returned by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an HTTP PATCH or PUT request message with NIDD Configuration resource is responded with a non-2xx response code by SCEF application.

Measurement Scope

Network Element, Place Association

Recovery

- The response message may contain an application/problem+json body describing the details of the problem encountered that failed the request.

Possible causes may be:

- The requested NIDD configuration (identifier by the SCS Application Server ID and the Configuration ID) was not found in the SCEF database.

3.76.8.3 TxNiddT8ConfigurationDeleteFailure

Measurement ID

13012

Measurement Group

SCEF NIDD Exception

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD Configuration Delete requests for which a failure was returned by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an HTTP DELETE request message with NIDD Configuration resource is responded with a non-2xx response code by SCEF application.

Measurement Scope

Network Element, Place Association

Recovery

- The response message may contain an application/problem+json body describing the details of the problem encountered that failed the request.

Possible causes may be:

- The requested NIDD configuration (identifier by the SCS Application Server ID and the Configuration ID) was not found in the SCEF database.

3.76.8.4 TxNiddT8ConfigurationGetFailure

Measurement ID

13015

Measurement Group

SCEF NIDD Exception

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD Individual Configuration queries for which a failure was returned by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an HTTP GET request message with an Individual NIDD Configuration resource is responded with a non-2xx response code by SCEF application.

Measurement Scope

Network Element, Place Association

Recovery

- The response message may contain an application/problem+json body describing the details of the problem encountered that failed the request.

Possible causes may be:

- The requested NIDD configuration (identifier by the SCS Application Server ID and the Configuration ID) was not found in the SCEF database.

3.76.8.5 TxNiddT8DIDataPostFailure

Measurement ID

13018

Measurement Group

SCEF NIDD Exception

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD new Downlink Data requests for which a failure was returned by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an HTTP POST request message with NIDD Downlink Data Delivery resource is responded with a non-2xx response code by SCEF application.

Measurement Scope

Network Element, Place Association

Recovery

- The response message may contain an application/problem+json body describing the details of the problem encountered that failed the request.

Possible causes may be:

- The requested NIDD configuration (identifier by the SCS Application Server ID and the Configuration ID) was not found in the SCEF database.
- A PDN connection is not available to deliver the downlink data and the PDN Establishment Option is disabled or set to *INDICATE_ERROR* by the SCS Application Server.
- The UE is not available and the Data Buffering option is disabled or not requested by the SCS Application Server.
- The data packet size exceeds the maximum bufferable packet size.
- The data needs to be buffered but the UE's downlink data queue is full.
- The data needs to be buffered but the packet size exceeds the maximum bufferable packet size.
- The Downlink APN Rate limit has been reached.
- The Serving PLMN Rate limit has been reached.

3.76.8.6 TxNiddT8DIDataPutFailure

Measurement ID

13021

Measurement Group

SCEF NIDD Exception

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD Downlink Data update requests for which a failure was returned by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an HTTP PUT request message with an Individual NIDD Downlink Data Delivery resource is responded with a non-2xx response code by SCEF application.

Measurement Scope

Network Element, Place Association

Recovery

- The response message may contain an application/problem+json body describing the details of the problem encountered that failed the request.

Possible causes may be:

- The requested NIDD configuration (identifier by the SCS Application Server ID and the Configuration ID) was not found in the SCEF database.
- The requested Downlink Data Delivery packet (identified by the Downlink Data Delivery ID) was not found in the UE's buffered packets queue.
- A PDN connection is not available to deliver the downlink data and the PDN Establishment Option is disabled or set to *INDICATE_ERROR* by the SCS Application Server.
- The UE is not available and the Data Buffering option is disabled or not requested by the SCS Application Server.
- The data packet size exceeds the maximum bufferable packet size.

3.76.8.7 TxNiddT8DIDataGetFailure

Measurement ID

13024

Measurement Group

SCEF NIDD Exception

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD Individual Downlink Data queries for which a failure was returned by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an HTTP GET request message with an Individual NIDD Downlink Data Delivery resource is responded with a non-2xx response code by SCEF application.

Measurement Scope

Network Element, Place Association

Recovery

- The response message may contain an application/problem+json body describing the details of the problem encountered that failed the request.

Possible causes may be:

- The requested NIDD configuration (identifier by the SCS Application Server ID and the Configuration ID) was not found in the SCEF database.
- The requested Downlink Data Delivery packet (identified by the Downlink Data Delivery ID) was not found in the UE's buffered packets queue.

3.76.8.8 TxNiddCmaEstablishFailure

Measurement ID

13030

Measurement Group

SCEF NIDD Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Diameter CMR Establishment messages for which a failure was returned by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an ingress Diameter CMR message with a Connection-Action value *CONNECTION_ESTABLISHMET* fails to get processed and is responded with a result code other than 2001.

Measurement Scope

Network Element, Place Association

Recovery

- The response message may contain an application/problem+json body describing the details of the problem encountered that failed the request.

Possible causes may be:

- The requested NIDD configuration (identifier by the SCS Application Server APN and IMSI) was not found in the SCEF database.

3.76.8.9 TxNiddCmaUpdateFailure

Measurement ID

13033

Measurement Group

SCEF NIDD Exception

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of Diameter CMR Update messages for which a failure was returned by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an ingress Diameter CMR message with a Connection-Action value *CONNECTION_UPDATE* fails to get processed and is responded with a result code other than 2001.

Measurement Scope

Network Element, Place Association

Recovery

- The response message may contain an Error-Message AVP describing the details of the problem encountered that failed the request. Possible causes may be:
 - The requested NIDD configuration (identifier by the IMSI and EPS Bearer ID) was not found in the SCEF database.

3.76.8.10 TxNiddCmaReleaseFailure

Measurement ID

13036

Measurement Group

SCEF NIDD Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Diameter CMR Release messages for which a failure was returned by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an ingress Diameter CMR message with a Connection-Action value *CONNECTION_RELEASE* fails to get processed and is responded with a result code other than 2001.

Measurement Scope

Network Element, Place Association

Recovery

- The response message may contain an Error-Message AVP describing the details of the problem encountered that failed the request.
Possible causes may be:

- The requested NIDD configuration (identifier by the IMSI and EPS Bearer ID) was not found in the SCEF database.

3.76.8.11 TxNiddOdaFailure

Measurement ID

13039

Measurement Group

SCEF NIDD Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Diameter ODR Release messages for which a failure was returned by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an ingress Diameter ODR message fails to get processed and is responded with a result code other than 2001.

Measurement Scope

Network Element, Place Association

Recovery

- The response message may contain an Error-Message AVP describing the details of the problem encountered that failed the request.

Possible causes may be:

- The requested NIDD configuration (identifier by the IMSI and EPS Bearer ID) was not found in the SCEF database.
- The APN Uplink Rate limit may have been reached.
- The SCS Application Server is no longer present in the OAM configuration.

3.76.8.12 ExNiddT8UINotifyFailure

Measurement ID

13042

Measurement Group

SCEF NIDD Exception

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD Uplink Data notifications that could not be sent to the SCS Application Server in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF fails to send an NIDD Uplink Notification to the SCS Application Server.

Measurement Scope

Network Element, Place Association

Recovery

- The DSR API Gateway IPs are configured in the System Options. The same may be reviewed and the connectivity may be tested. The SCS Application Server's notification URL is received in the NIDD Configuration request. If not present in the HTTP message, the default is used from the SCS Application Server OAM configuration. Either URL may be checked to ensure that the same is reachable.

3.76.8.13 ExNiddResourceNotSupported

Measurement ID

13043

Measurement Group

SCEF NIDD Exception

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD messages received for an unknown resource by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented when SCEF application receives an HTTP request message containing the 3GPP defined T8 API name in the resource URI and one of the following validation fails:

- Invalid number of URI components (separated by "/").
- The resource name does not match the names.

Measurement Scope

Network Element, Place Association

Recovery

- The SCS Application Server configuration may be reviewed for the URI formation rules.

3.76.8.14 ExNiddDatabaseIntegrityFailure

Measurement ID

13044

Measurement Group

SCEF NIDD Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of NIDD database integrity failures detected by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented when SCEF application detects one of the following conditions:

- An Authorization Grant is received in NIA message containing an IMSI and APN for a record already exists in the database, but for a different SCS Application ID and/or Configuration ID.

Measurement Scope

Network Element, Place Association

Recovery

- This condition may arise due to a partial database delete operation and will be cleaned up by the NIDD audit procedure. If the problem persists, the SCS Application Server may retry by changing the Configuration ID.

3.76.8.15 ExNiddNirRoutingFailure

Measurement ID

13045

Measurement Group

SCEF NIDD Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Diameter NIR messages that could not be routed by DSR in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented when SCEF application and/or the underlying Diameter Routing Layer fails to route an NIR message.

 **Note:**

In such a condition the DRL layer creates an answer (NIA) message with result code 3002 and populated the Local Node's FQDN and Realm in the Origin-Host and Origin-Realm respectively.

Measurement Scope

Network Element, Place Association

Recovery

- The SCEF System Options configuration for ART and PRT may be reviewed. Additionally the Diameter Application Routing Rules and/or Peer Routing Rules Tables may be reviewed.

3.76.8.16 ExNiddDiamProtocolError

Measurement ID

13046

Measurement Group

SCEF NIDD Exception

Measurement Type

Simple

Measurement Dimension

Arrayed on Diameter Application ID

Description

The number of Diameter messages received by SCEF application that had a protocol error.

Collection Interval

30 min

Peg Condition

This measurement is incremented when SCEF application detects one of the following conditions:

- An NIA message is received that does not contain one or more of the following AVPs:

- NIDD-Authorization-Response with embedded User-Name and Granted-Validity-Time AVPs.
- A CMR message is received that does not contain one or more of the following AVPs:
 - Connection-Action
 - User-Identifier with embedded User-Name AVP
 - Bearer-Identifier
 - Service-Selection
- A CMR message is received with a Connection-Action AVP containing a value other than:
 - CONNECTION_ESTABLISHMENT (0)
 - CONNECTION_RELEASE (1)
 - CONNECTION_UPDATE (2)

Measurement Scope

Network Element, Place Association

Recovery

- The HSS and/or the MME configuration needs to be investigated for isolate the error condition.

3.76.8.17 ExNiddTdrRoutingFailure

Measurement ID

13051

Measurement Group

SCEF NIDD Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Diameter TDR messages that could not be routed by DSR in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented when SCEF application and/or the underlying Diameter Routing Layer fails to route a TDR message.

 **Note:**

In such a condition the DRL layer creates an answer (TDA) message with result code 3002 and populated the Local Node's FQDN and Realm in the Origin-Host and Origin-Realm respectively.

Measurement Scope

Network Element, Place Association

Recovery

- The SCEF System Options configuration for ART and PRT may be reviewed. Additionally the Diameter Application Routing Rules and/or Peer Routing Rules Tables may be reviewed.

3.76.8.18 TxNiddBufferedDIDataFailure

Measurement ID

13053

Measurement Group

SCEF NIDD Exception

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD Downlink Data Delivery failure notifications sent by SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented when an NIDD Downlink Data Delivery Status Notification is sent to the SCS Application Server with a Delivery Status of "FAILURE" for a previously buffered Downlink Data packet. This could happen due to one of the following conditions:

- The Maximum Latency duration for the packet has expired while waiting in the Data Delivery queue.
- A higher priority Data packet replaced the lower priority packet in order to accommodate itself when the Data Delivery queue was full.
- The PDN connection was closed and the PDN Establishment Option was either disabled or set to "INDICATE_ERROR" by the SCS Application Server or OAM configuration.
- The Diameter connectivity to the MME/SGSN was lost.
- A graceful shutdown of the SCEF application was performed.

Measurement Scope

Network Element, Place Association

Recovery

- No action necessary.

3.76.8.19 ExNiddDIAPnRateExceeded

Measurement ID

13066

Measurement Group

SCEF NIDD Exception

Measurement Type

Simple

Measurement Dimension

Arrayed on APN

Description

The number of NIDD Downlink Data packets that were rejected because the APN Downlink Rate limit was reached in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an NIDD Downlink Data Delivery packet is rejected by SCEF application as the configured Downlink APN Rate limit was reached.

Measurement Scope

Network Element, Place Association

Recovery

- If the pegging of this measurement is unexpectedly high, review the Downlink APN Rate Control configuration.

3.76.8.20 ExNiddPlmnRateExceeded

Measurement ID

13067

Measurement Group

SCEF NIDD Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of NIDD Downlink Data packets that were rejected because the Serving PLMN Downlink Rate limit was reached in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an NIDD Downlink Data Delivery packet is rejected by SCEF application as the Serving PLMN Rate limit was reached.

 **Note:**

The Serving PLMN Rate is informed by the MME/SGSN in Diameter CMR message and is honored by SCEF application if the OAM configuration of Serving PLMN Rate Control is enabled.

Measurement Scope

Network Element, Place Association

Recovery

- If the pegging of this measurement is unexpected high, the MME/SGSN's Serving PLMN Rate Control configuration may be reviewed or the Serving PLMN Rate Control may be disabled in the System Options.

3.76.8.21 ExNiddUIApnRateExceeded

Measurement ID

13068

Measurement Group

SCEF NIDD Exception

Measurement Type

Simple

Measurement Dimension

Arrayed on APN

Description

The number of NIDD Uplink Data packets that were rejected because the APN Uplink Rate limit was reached in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an NIDD Uplink Data Delivery packet received in Diameter ODR message is rejected by SCEF application as the configured Uplink APN Rate limit was reached.

Measurement Scope

Network Element, Place Association

Recovery

- If the pegging of this measurement is unexpectedly high, the Uplink APN Rate Control configuration may be reviewed.

The Uplink APN Rate Control parameters are conveyed to the MME/SGSN in the Extended Protocol Configuration Options. Hence, the MME/SGSN is expected to not send Uplink messages at a rate that it gets discarded at SCEF.

3.76.8.22 RxNiddNiaFailure

Measurement ID

13069

Measurement Group

SCEF NIDD Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Diameter NIA messages received by SCEF application with unsuccessful authorization in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time SCEF application receives a Diameter NIDD-Information-Answer message from HSS containing a Result-Code or Experimental-Result-Code value other than 2001 (DIAMETER_SUCCESS).

**Note:**

This measurement is incremented if any intermediate DRA fails to route to the HSS.

**Note:**

This measurement is not incremented when the NIR message fails to go out of the DSR server. In this case measurement 13045 is incremented.

Measurement Scope

Network Element, Place Association

Recovery

- For DIAMETER_UNABLE_TO_ROUTE errors, the routing configurations of the intermediate DRAs may be investigated. For errors generated by HSS, the HSS configuration needs to be investigated for the concerned User Entity.

3.76.8.23 TxNiddT8DIDataDeleteFailure

Measurement ID

13075

Measurement Group

SCEF NIDD Exception

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD Individual Downlink Data Delete for which a failure was returned by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an HTTP DELETE request message with NIDD Individual Downlink Data resource is responded with a non-2xx response code by the SCEF application.

Measurement Scope

Network Element, Place Association

Recovery

- The response message may contain an application/problem+json body describing the details of the problem encountered that failed the request.

Possible causes may be:

- The requested NIDD configuration (identifier by the SCS Application Server ID and the Configuration ID) was not found in the SCEF database.
- The requested Downlink Data Delivery packet (identified by the Downlink Data Delivery ID) was not found in the UE's buffered packets queue.

3.76.8.24 TxNiddT8DIDataGetAllFailure

Measurement ID

13078

Measurement Group

SCEF NIDD Exception

Measurement Type

Simple

Measurement Dimension

Arrayed on SCS Application Server

Description

The number of T8 NIDD Downlink Data queries for which a failure was returned by the SCEF application in the given collection interval.

Collection Interval

30 min

Peg Condition

This measurement is incremented each time an HTTP GET request message for NIDD Downlink Data Delivery resource is responded with a non-2xx response code by the SCEF application.

Measurement Scope

Network Element, Place Association

Recovery

- The response message may contain an application/problem+json body describing the details of the problem encountered that failed the request.

Possible causes may be:

- The requested NIDD configuration (identifier by the SCS Application Server ID and the Configuration ID) was not found in the SCEF database.

3.76.9 SCEF Performance measurements

The Service Capability Exposure Function (SCEF) Performance measurement report contains measurements that provide performance information specific to SCEF.

3.76.9.1 DxScefAclRuleMatch

Measurement ID

13613

Measurement Group

SCEF Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of T8 request messages which have a matching rule in ACL.

Collection Interval

30 min

Peg Condition

This measurement is incremented when the SCEF application receives a T8 request for which associated ACL rule is found.

Measurement Scope

Network Element, Place Association

Recovery

- Investigate COMCOL measurements/alarms to find out the reason for the database operation failure.

3.77 Server Exception measurements

3.77.1 EvError

Measurement ID

9901

Measurement Group

Server Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of error trace conditions. This indicates that an expected but abnormal path was taken in the software, which warrants further investigation.

By default, error tracing is disabled. Non-zero values in this measurement indicate that something is occurring that would have generated an error trace, were error tracing enabled. These error trace conditions should not affect service; situations that are service affecting will be covered by Alarms or Events.

Collection Interval

30 min

Peg Condition

Any time a software path is executed that contains an error trace, regardless of whether or not error tracing is enabled.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [#unique_131](#) for assistance if any unexpected non-zero values in this measurement occur.

3.77.2 EvVital

Measurement ID

9900

Measurement Group

Server Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of vital trace conditions encountered. A vital trace indicates that an unexpected path was taken in the software, which warrants further investigation. These vital trace conditions should not affect service; situations that are service affecting will be covered by Alarms or Events. During application start-up and shutdown, vital traces are used to show details that can aid in debugging of initialization and shutdown problems. These traces are always enabled and cannot be turned off. It is a VITAL error condition for any other instance.

Collection Interval

30 min

Peg Condition

Any time a software path is executed that contains a vital trace

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [#unique_131](#) for assistance if any unexpected non-zero values in this measurement occur.

3.78 Server M3UA Exception measurements

The Server M3UA Exception measurement report contains measurements that provide information that is applies to the MP server as a whole.

3.78.1 TxM3uaERROR

Measurement ID

9110

Measurement Group

Server M3UA Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of M3UA ERROR messages sent by the MP server. M3UA ERROR message are sent to inform the originator of an M3UA message that the message cannot be processed due to some problem with the message syntax or semantics.

Collection Interval

30 min

Peg Condition

This measurement is incremented by one each time an ERROR message is sent.

Measurement Scope

NE, Server

Recovery

1. If all is well this measurement will have a zero value. If this measurement has a non-zero value, review the event history in the GUI under **Alarms & Events**, and then **View History**. Look for **Event ID 19231**, which provides details about the reason for sending the M3UA ERROR message.
2. If the error reason in **Event ID 19231** indicates a problem with the routing context, verify that the routing context used for the specified link is configured to match between the ASP and the SG.
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.78.2 RxM3uaERROR

Measurement ID

9111

Measurement Group

Server M3UA Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of times M3UA ERROR messages are received by the MP server. M3UA ERROR messages are sent to inform the originator of an M3UA message that the message cannot be processed because of a problem with the message syntax or semantics.

Collection Interval

30 min

Peg Condition

This measurement is incremented by one each time an ERROR message is received.

Measurement Scope

NE, Server

Recovery

1. If all is well, this measurement will have a zero value. If this measurement has a non-zero value, review the event history in the GUI under **Alarms & Events**, and then **View History**. Look for Event ID 19235, which provides details about the reason for sending the M3UA ERROR message.
2. Event ID 19235 provides details about the reason for receiving the M3UA ERROR message. If the reason indicates a problem with the routing context, verify that the routing context used for the link specified in Event ID 19235 is configured to match between the ASP and the SG.

3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.78.3 M3UAStackQueueFull

Measurement ID

9168

Measurement Group

Server M3UA Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of messages that were discarded because the M3UA Stack Event Queue was full. This measurement is primarily intended to assist in evaluating the need for additional MP processing capacity at a Network Element.

Collection Interval

30 min

Peg Condition

Each time a M3UA Stack Event Queue message is discarded

Measurement Scope

NE, Server

Recovery

1. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an MP over several collection intervals, then the number of MPs in the Network Element may need to be increased.
2. If the peak and average for an individual MP is significantly different than other MPs in the same Network Element then an MP-specific hardware, software, or configuration problem may exist.
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.78.4 SCTPAggrQueueFull

Measurement ID

9174

Measurement Group

Server M3UA Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of egress messages that were discarded because the number of SCTP messages queued in all SCTP Single Association Writer Queues exceeded a maximum capacity.

Collection Interval

30 min

Peg Condition

Each time a SCTP Aggregate Association Writer Queue message is discarded

Measurement Scope

NE, Server

Recovery

1. An IP network or STP/SG problem may exist preventing SCTP from transmitting messages into the network on multiple Associations at the same pace that messages are being received from the network.
2. One or more SCTP Association Writer threads may be experiencing a problem preventing it from processing events from its event queue. Examine the alarm log from GUI main menu under **Alarms & Events**, and then **View Active**.
3. If one or more MPs in a server site have failed, the traffic will be distributed among the remaining MPs in the server site. You can monitor MP server status from **Status & Manage**, and then **Server**.
4. The misconfiguration of STP routing may result in too much traffic being distributed to the MP. You can monitor the ingress traffic rate of each MP from **Status & Manage**, and then **KPIs**. Each MP in the server site should be receiving approximately the same ingress transactions per second.
5. There may be an insufficient number of MPs configured to handle the network traffic load. You can monitor the ingress traffic rate of each MP from **Status & Manage**, and then **KPIs**. If all MPs are in a congestion state, then the offered load to the server site is exceeding its capacity.
6. If the problem persists, it is recommended to contact [#unique_131](#).

3.78.5 ANSIDiscardsNoPDUBuffer

Measurement ID

9245

Measurement Group

Server M3UA Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress ANSI messages that were discarded because no ANSI PDU Buffers were available.

Collection Interval

30 min

Peg Condition

Each time an ANSI message is discarded

Measurement Scope

NE, Server

Recovery

1. If this measurement is greater than zero, a network (IP or SS7) problem might exist or an MP-specific software problem may exist (for example, a buffer pool leak).
2. If the problem persists, it is recommended to contact [#unique_131](#).

3.78.6 ITUDiscardsNoPDUBuffer

Measurement ID

9245

Measurement Group

Server M3UA Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress messages that were discarded because no ITUI/IITUN PDU Buffers were available.

Collection Interval

30 min

Peg Condition

Each time an ITUI message is discarded

Measurement Scope

NE, Server

Recovery

1. If this measurement is greater than zero, a network (IP or SS7) problem might exist or an MP-specific software problem may exist (for example, a buffer pool leak).
2. If the problem persists, it is recommended to contact [#unique_131](#).

3.79 Server M3UA Performance measurements

The Server M3UA Performance measurement report contains measurements that provide performance information that is applies to the MP server as a whole.

3.79.1 TxNonDataMsg

Measurement ID

9100

Measurement Group

Server M3UA Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

This measurement gives the level of non-DATA M3UA signaling that occurred on the MP server during the reporting period. The count includes all non-DATA M3UA messages (i.e., ASPSM, ASPTM, ERROR, DAUD). RKM messaging is not supported in this release

Collection Interval

30 min, Daily

Peg Condition

This measurement is incremented by one each time any of the following occur:

- An ASP-UP message is sent.
- An ASP-DOWN message is sent.
- An ASP-ACTIVE message is sent.
- An ASP-INACTIVE message is sent.
- An ERROR message is sent.
- A DAUD message is sent.
- A BEAT message is sent.
- A BEAT-ACK message is sent.

Measurement Scope

NE, Server

Recovery

- No action required.

3.79.2 RxNonDataMsg

Measurement ID

9101

Measurement Group

Server M3UA Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

This includes all non-DATA M3UA messages (i.e., ASPSM, ASPTM, MGMT, SSNM). RKM messaging is not supported in this release.

Collection Interval

30 min

Peg Condition

This measurement is incremented by one each time any of the following occur:

- An ASP-UP-ACK message is received
- An ASP-DOWN-ACK message is received
- An ASP-ACTIVE-ACK message is received
- An ASP-INACTIVE-ACK message is received
- An ERROR message is received
- A DUNA message is received
- A DAVA message is received
- A DRST message is received
- A SCON message is received
- A DUPU message is received
- A BEAT message is received
- A BEAT-ACK message is received
- A NOTIFY message is received

Measurement Scope

NE, Server

Recovery

- No action required.

3.79.3 TxNonDataOctets

Measurement ID

9102

Measurement Group

Server M3UA Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

This measurement gives the number of octets of non-DATA M3UA signaling that occurred on the MP server during the reporting period. The count includes all non-DATA M3UA messages (i.e., ASPSM, ASPTM, ERROR, DAUD). RKM messaging is not supported in this release. SCTP, IP, and Ethernet headers are not included in the octet counts.

Collection Interval

30 min

Peg Condition

This measurement is incremented by the number of octets in the message (not including SCTP, IP, or Ethernet headers) each time any of the following occur:

- An ASP-UP message is sent.
- An ASP-DOWN message is sent.
- An ASP-ACTIVE message is sent.
- An ASP-INACTIVE message is sent.
- An ERROR message is sent.
- A DAUD message is sent.
- A BEAT message is sent.
- A BEAT-ACK message is sent.

Measurement Scope

NE, Server

Recovery

- No action required.

3.79.4 RxNonDataOctets

Measurement ID

9103

Measurement Group

Server M3UA Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

This measurement gives the number of octets of non-DATA M3UA signaling occurring on the MP server during the reporting period. This includes all non-DATA M3UA messages (i.e., ASPSM, ASPTM, MGMT, SSNM). RKM messaging is not supported in this release. SCTP, IP, and Ethernet headers are not included in the octet counts.

Collection Interval

30 min

Peg Condition

This measurement is incremented by the number of octets in the message (not including SCTP, IP, or Ethernet headers) each time any of the following occur:

- An ASP-UP-ACK message is received
- An ASP-DOWN-ACK message is received
- An ASP-ACTIVE-ACK message is received
- An ASP-INACTIVE-ACK message is received
- An ERROR message is received
- A DUNA message is received
- A DAVA message is received
- A DRST message is received
- A SCON message is received
- A DUPU message is received
- A BEAT message is received
- A BEAT-ACK message is received
- A NOTIFY message is received

Measurement Scope

NE, Server

Recovery

- No action required.

3.79.5 M3UAShouldQueuePeak

Measurement ID

9166

Measurement Group

Server M3UA Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak M3UA Network Management Event Queue utilization (0-100%) measured during the collection interval. This measurement is primarily intended to assist in evaluating the need for additional MP processing capacity at a Network Element.

Collection Interval

30 min

Peg Condition

The maximum M3UA Stack Event Queue utilization sample taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an MP over several collection intervals, then the number of MPs in the Network Element may need to be increased.
2. If the peak and average for an individual MP is significantly different than other MPs in the same Network Element then an MP-specific hardware, software, or configuration problem may exist.
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.79.6 M3UAShouldQueueAvg

Measurement ID

9167

Measurement Group

Server M3UA Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average M3UA Stack Event Queue utilization (0-100%) measured during the collection interval. This measurement is primarily intended to assist in evaluating the need for additional MP processing capacity at a Network Element.

Collection Interval

30 min

Peg Condition

The average of all M3UA Stack Event Queue utilization samples taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an MP over several collection intervals, then the number of MPs in the Network Element may need to be increased.

2. If the peak and average for an individual MP is significantly different than other MPs in the same Network Element then an MP-specific hardware, software, or configuration problem may exist.
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.79.7 SCTPAggrQueuePeak

Measurement ID

9172

Measurement Group

Server M3UA Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak SCTP Aggregate Association Writer Queue utilization (0-100%) measured during the collection interval.

Collection Interval

30 min

Peg Condition

The maximum SCTP Aggregate Association Writer Queue utilization sample taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. An IP network or STP/SG problem may exist preventing SCTP from transmitting messages into the network on multiple Associations at the same pace that messages are being received from the network.
2. One or more SCTP Association Writer threads may be experiencing a problem preventing it from processing events from its event queue. Examine the alarm log from the GUI main menu under **Alarms & Events**, and then **View Active**.
3. If one or more MPs in a server site have failed, the traffic will be distributed among the remaining MPs in the server site. You can monitor MP server status from **Status & Manage**, and then **Server**.
4. The misconfiguration of STP routing may result in too much traffic being distributed to the MP. You can monitor the ingress traffic rate of each MP from **Status & Manage**, and then **KPIs**. Each MP in the server site should be receiving approximately the same ingress transaction per second.
5. There may be an insufficient number of MPs configured to handle the network traffic load. You can monitor the ingress traffic rate of each MP from **Status & Manage**, and then **KPIs**. If all MPs are in a congestion state, then the offered load to the server site is exceeding its capacity.
6. If the problem persists, it is recommended to contact [#unique_131](#).

3.79.8 SCTPAggrQueueAvg

Measurement ID

9173

Measurement Group

Server M3UA Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average SCTP Aggregate Association Writer Queue utilization (0-100%) measured during the collection interval.

Collection Interval

30 min

Peg Condition

The average of all SCTP Aggregate Association Writer Queue utilization samples taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. An IP network or STP/SG problem may exist preventing SCTP from transmitting messages into the network on multiple Associations at the same pace that messages are being received from the network.
2. One or more SCTP Association Writer threads may be experiencing a problem preventing it from processing events from its event queue. Examine the alarm log from the GUI main menu under **Alarms & Events**, and then **View Active**.
3. If one or more MPs in a server site have failed, the traffic will be distributed among the remaining MPs in the server site. You can monitor MP server status from **Status & Manage**, and then **Server**.
4. The misconfiguration of STP routing may result in too much traffic being distributed to the MP. You can monitor the ingress traffic rate of each MP from **Status & Manage**, and then **KPIs**. Each MP in the server site should be receiving approximately the same ingress transaction per second.
5. There may be an insufficient number of MPs configured to handle the network traffic load. You can monitor the ingress traffic rate of each MP from **Status & Manage**, and then **KPIs**. If all MPs are in a congestion state, then the offered load to the server site is exceeding its capacity.
6. If the problem persists, it is recommended to contact [#unique_131](#).

3.80 Server M3UA Usage measurements

The Server M3UA Usage measurement report contains measurements that provide usage information that is applies to the MP server as a whole.

3.80.1 TxASPSM

Measurement ID

9104

Measurement Group

Server M3UA Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

This measurement gives the level of ASPSM M3UA signaling that occurs on the MP server during the reporting period.

Collection Interval

30 min

Peg Condition

This measurement is incremented by one each time any of the following occur:

- An ASP-UP message is sent.
- An ASP-DOWN message is sent.
- A BEAT message is sent.
- A BEAT-ACK message is sent.

Measurement Scope

NE, Server

Recovery

- No action required.

3.80.2 RxASPSM

Measurement ID

9105

Measurement Group

Server M3UA Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

This measurement gives the level of ASPSM M3UA signaling occurring on the MP server during the reporting period.

Collection Interval

30 min

Peg Condition

This measurement is incremented by one each time any of the following occur:

- An ASP-UP-ACK message is received
- An ASP-DOWN-ACK message is received
- A BEAT message is received
- A BEAT-ACK message is received

Measurement Scope

NE, Server

Recovery

- No action required.

3.80.3 TxASPTM

Measurement ID

9106

Measurement Group

Server M3UA Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

This measurement gives the level of ASPTM M3UA signaling that occurs on the MP server during the reporting period.

Collection Interval

30 min

Peg Condition

This measurement is incremented by one each time any of the following occur:

- An ASP-ACTIVE message is sent.
- An ASP-INACTIVE message is sent.

Measurement Scope

NE, Server

Recovery

- No action required.

3.80.4 RxASPTM

Measurement ID

9107

Measurement Group

Server M3UA Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

This measurement gives the level of ASPTM M3UA signaling occurring on the MP server during the reporting period.

Collection Interval

30 min

Peg Condition

This measurement is incremented by one each time any of the following occur:

- An ASP-ACTIVE-ACK message is received
- An ASP-INACTIVE-ACK message is received

Measurement Scope

NE, Server

Recovery

- No action required.

3.80.5 TxDAUD

Measurement ID

9108

Measurement Group

Server M3UA Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

This measurement indicates the level of auditing that occurs on the MP server during the reporting period. AUD message are sent periodically as an audit when the SG reports that a point code is unavailable or congested.

Collection Interval

30 min

Peg Condition

This measurement is incremented by one each time a DAUD message is sent.

Measurement Scope

NE, Server

Recovery

- No action required.

3.80.6 RxSSNM

Measurement ID

9109

Measurement Group

Server M3UA Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of **SSNM** messages received by the **MP** server. SSNM messages are sent from the SG as information about point code and user part status in the network. This measurement indicates the level of SSNM signaling occurring on the MP server during the reporting period.

Collection Interval

30 min

Peg Condition

This measurement is incremented by the number of octets in the message (not including SCTP, IP, or Ethernet headers) each time any of the following occur:

- A **DUNA** message is received
- A **DAVA** message is received
- A **DRST** message is received
- A **SCON** message is received
- A **DUPU** message is received

Measurement Scope

NE, Server

Recovery

- No action required.

3.80.7 RxM3uaNOTIFY

Measurement ID

9112

Measurement Group

Server M3UA Usage

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of M3UA NOTIFY messages received by the MP server. M3UA NOTIFY messages are sent by the SG to indicate its view of the M3UA AS state. These messages do not cause any signaling behavior on the MP server.

Collection Interval

30 min

Peg Condition

This measurement is incremented by one each time a NOTIFY message is received.

Measurement Scope

NE, Server

Recovery

- No action required.

3.81 Server MTP3 Exception measurements

The Server MTP3 Exception measurement report contains measurements that provide information about M3RL exceptions and unexpected messages and events.

3.81.1 TxM3RLDestUnknown

Measurement ID

9072

Measurement Group

Server MTP3 Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of egress messages M3RL discarded because no routing information exists for the RSP/Destination.

Collection Interval

5 min

Peg Condition

For each message discarded

Measurement Scope

NE, Server

Recovery

- If a high number of these errors occurs, then an internal routing table problem exists. It is recommended to contact [#unique_131](#) for assistance.

3.81.2 TxM3RLDestUnavail

Measurement ID

9073

Measurement Group

Server MTP3 Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of egress messages M3RL discarded because the RSP/Destination was Unavailable.

Collection Interval

5 min

Peg Condition

For each message discarded

Measurement Scope

NE, Server

Recovery

- The RSP/Destination can be unavailable when the request is received from the User Part or while M3RL is buffering messages for a rerouting or changeover/changeback procedure.

3.81.3 TxM3RLDestCong

Measurement ID

9074

Measurement Group

Server MTP3 Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of egress messages M3RL discarded because the RSP/Destination's congestion level was higher than the message's priority.

Collection Interval

5 min

Peg Condition

For each message discarded

Measurement Scope

NE, Server

Recovery

- This value provides a measure of how many egress messages M3RL discarded because the RSP/Destination's congestion level was higher than the message's priority. Network Management messages have the highest message priority. User Part message priorities are determined by the SCCP layer.

3.81.4 TxM3RLBufOverflow

Measurement ID

9075

Measurement Group

Server MTP3 Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of egress messages M3RL discarded because of an internal buffer overflow.

Collection Interval

5 min

Peg Condition

For each message discarded

Measurement Scope

NE, Server

Recovery

1. This condition should not occur but may be caused by an unusually high setting of the T1, T3, or T6 timers. The default value is 60ms but the user has the ability to set them as high as 2000ms. You can view and modify the current M3RL timer values via the GUI under **SS7/Sigtran**, and then **Configuration**, and then **MTP3 Options**.
2. An internal overflow condition may occur if the IP network is unstable causing M3RL to invoke multiple Changeover/Changeback procedures as links fail and recover. Verify that IP network connectivity exists between the MP server and the adjacent servers.
3. Check the event history logs for additional SS7 events or alarms from this MP server.
4. Verify that the adjacent server is not under maintenance.
5. It is recommended to contact [#unique_131](#) for assistance if needed.

3.81.5 RxM3RLInvalidDPC

Measurement ID

9082

Measurement Group

Server MTP3 Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

This value provides a measure of how many ingress messages are discarded because the DPC was not a True Point Code (TPC) or Capability Point Code (CPC) configured for the MP.

Collection Interval**Peg Condition**

For each message discarded

Measurement Scope

NE, Server

Recovery

1. From the GUI main menu under **SS7/Sigtran**, and then **Configuration**, and then **Link Sets** verify that the LSP Point Code field is set to **All** if signaling can arrive for either CPC or TPC on this link set.
2. If this measurement is large, it may indicate a routing inconsistency between STP/SG and the MP. You can view the point codes of the MP from **SS7/Sigtran**, and then **Configuration**, and then **Local Signaling Points**.

3.81.6 RxM3RLInvalidSI

Measurement ID

9083

Measurement Group

Server MTP3 Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

This value provides a measure of how many ingress messages M3RL discarded because the Service Indicator received was not **0** (SNM) or **3** (SCCP).

Collection Interval

5 min

Peg Condition

For each message discarded

Measurement Scope

NE, Server

Recovery

- This type of failure should never occur and usually indicates that the routing in the STP/SG or originator of the message is incorrect.

3.81.7 RxM3RLInvalidNI

Measurement ID

9084

Measurement Group

Server MTP3 Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

This value provides a measure of how many ingress messages M3RL discarded because the Network Indicator received was the same value configured for the MP.

Collection Interval

5 min

Peg Condition

For each message discarded

Measurement Scope

NE, Server

Recovery

- If this measurement is large, it may indicate a routing inconsistency between the STP/SG and the MP. The NI values for the MP can be viewed via the GUI main menu under **SS7/Sigtran**, and then **Configuration**, and then **Local Signaling Points**. See the **SS7 Domain** column.

3.81.8 RxM3RLBufOverflow

Measurement ID

9085

Measurement Group

Server MTP3 Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

This value provides a measure of how many ingress messages M3RL discarded because of an internal buffer overflow.

Collection Interval

5 min

Peg Condition

For each message discarded

Measurement Scope

NE, Server

Recovery

- This should never occur unless the MP is experiencing severe overload conditions and SCCP is unable to service its event queue.

3.81.9 M3RLStackQueueFull

Measurement ID

9162

Measurement Group

Server MTP3 Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of messages that were discarded because the M3RL Stack Event Queue was full. This measurement is primarily intended to assist in evaluating the need for additional MP processing capacity at a Network Element.

Collection Interval

5 min

Peg Condition

For Each M3RL Stack Event Queue message is discarded

Measurement Scope

NE, Server

Recovery

1. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an MP over several collection intervals, then the number of MPs in the Network Element may need to be increased.
2. If the peak and average for an individual MP is significantly different than other MPs in the same Network Element then an MP-specific hardware, software, or configuration problem may exist.
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.81.10 M3RLNetMgtQueueFull

Measurement ID

9165

Measurement Group

Server MTP3 Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of M3RL network management messages (SI=0) that were discarded because the M3RL Network Management Event Queue was full. This measurement is primarily intended to assist in evaluating the need for additional MP processing capacity at a Network Element.

Collection Interval

5 min

Peg Condition

Each time an M3RL Network Management Even Queue message is discarded

Measurement Scope

NE, Server

Recovery

1. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an MP over several collection intervals, then the number of MPs in the Network Element may need to be increased.
2. If the peak and average for an individual MP is significantly different than other MPs in the same Network Element then an MP-specific hardware, software, or configuration problem may exist.
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.82 Server MTP3 Performance measurements

3.82.1 TxM3RLDataMsgs

Measurement ID

9076

Measurement Group

Server MTP3 Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

This value provides a measure of how many egress DATA messages are sent from M3RL to M3UA. This measurement includes SCMG messages (which are DATA to the M3RL layer), but does not include SNM messages.

Collection Interval

5 min

Peg Condition

This counter is pegged each time a M3RL DATA message is sent to M3UA. This counter includes SCMG messages (which are DATA to the M3RL layer), but does not include SNM messages.

Measurement Scope

NE, Server

Recovery

- No action required.

3.82.2 RxM3RLDataMsgs

Measurement ID

9086

Measurement Group

Server MTP3 Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

This value provides a measure of how many ingress DATA messages M3RL is processing from the network. This measurement includes SCMG messages (which are DATA to the M3RL layer), but does not include SSNM messages.

Collection Interval

5 min

Peg Condition

This counter is pegged each time a M3RL DATA message is receive at M3RL from M3UA. This counter includes SCMG messages (which are DATA to the M3RL layer), but does not include SSNM messages.

Measurement Scope

NE, Server

Recovery

- No action required.

3.82.3 M3RLStackQueuePeak

Measurement ID

9160

Measurement Group

Server MTP3 Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak M3RL Stack Event Queue utilization (0-100%) measured during the collection interval. This measurement is primarily intended to assist in evaluating the need for additional MP processing capacity at a Network Element.

Collection Interval

5 min

Peg Condition

The maximum M3RL Stack Event Queue utilization sample taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an MP over several collection intervals, then the number of MPs in the Network Element may need to be increased.
2. If the peak and average for an individual MP is significantly different than other MPs in the same Network Element then an MP-specific hardware, software, or configuration problem may exist.
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.82.4 M3RLStackQueueAvg

Measurement ID

9161

Measurement Group

Server MTP3 Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average M3RL Stack Event Queue utilization (0-100%) measured during the collection interval. This measurement is primarily intended to assist in evaluating the need for additional MP processing capacity at a Network Element.

Collection Interval

5 min

Peg Condition

The average of all M3RL Stack Event Queue utilization samples taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an MP over several collection intervals, then the number of MPs in the Network Element may need to be increased.
2. If the peak and average for an individual MP is significantly different than other MPs in the same Network Element then an MP-specific hardware, software, or configuration problem may exist.
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.82.5 M3RLNetMgtQueuePeak

Measurement ID

9163

Measurement Group

Server MTP3 Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak M3RL Network Management Event Queue utilization (0-100%) measured during the collection interval. This measurement is primarily intended to assist in evaluating the need for additional MP processing capacity at a Network Element.

Collection Interval

5 min

Peg Condition

The maximum M3RL Network Management Event Queue utilization sample taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an MP over several collection intervals, then the number of MPs in the Network Element may need to be increased.
2. If the peak and average for an individual MP is significantly different than other MPs in the same Network Element then an MP-specific hardware, software, or configuration problem may exist.
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.82.6 M3RLNetMgtQueueAvg

Measurement ID

9164

Measurement Group

Server MTP3 Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average M3RL Network Management Event Queue utilization (0-100%) measured during the collection interval. This measurement is primarily intended to assist in evaluating the need for additional MP processing capacity at a Network Element.

Collection Interval

5 min

Peg Condition

The average of all M3RL Network Management Event Queue utilization samples taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an MP over several collection intervals, then the number of MPs in the Network Element may need to be increased.
2. If the peak and average for an individual MP is significantly different than other MPs in the same Network Element then an MP-specific hardware, software, or configuration problem may exist.
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.83 Server Resource Usage measurements

3.83.1 SS7ProcessPeak

Measurement ID

9150

Measurement Group

Server Resource Usage

Measurement Type

Max

Measurement Dimension

Single

Description

The peak SS7 Process CPU utilization (0-100%) measured during the collection interval. The SS7 Process is responsible for all SS7-related processing.

Collection Interval

5 min

Peg Condition

The maximum SS7 Process CPU utilization sample taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an MP over

several collection intervals, then the number of MPs in the Network Element may need to be increased.

2. If the peak and average for an individual MP is significantly different than other MPs in the same Network Element, then an MP-specific hardware, software, or configuration problem may exist or an STP/SG routing misconfiguration problem may exist.
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.83.2 SS7ProcessAvg

Measurement ID

9151

Measurement Group

Server Resource Usage

Measurement Type

Average

Measurement Dimension

Single

Description

The average SS7 Process CPU utilization (0-100%) measured during the collection interval. The SS7 process is responsible for all SS7-related processing.

Collection Interval

5 min

Peg Condition

The average of all SS7 Process CPU utilization samples taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an MP over several collection intervals, then the number of MPs in the Network Element may need to be increased.
2. If the peak and average for an individual MP is significantly different than other MPs in the same Network Element, then an MP-specific hardware, software, or configuration problem may exist or an STP/SG routing misconfiguration problem may exist.
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.83.3 SS7RxMsgRatePeak

Measurement ID

9152

Measurement Group

Server Resource Usage

Measurement Type

Max

Measurement Dimension

Single

Description

The peak Ingress Message Rate (in messages per second) measured during the collection interval. The Ingress Message Rate is the number of non-SNM (SI > 0) messages that M3UA attempts to queue in the M3RL Stack Event Queue.

Collection Interval

5 min

Peg Condition

The maximum Ingress Message Rate (messages per second) sample taken during the collection interval

Measurement Scope

NE, Server

Recovery

1. This measurement is primarily intended to assist in evaluating the need for additional MP processing capacity at a Network Element.
2. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an MP over several collection intervals, then the number of MPs in the Network Element may need to be increased.
3. If the peak and average for an individual MP is significantly different than other MPs in the same Network Element then an MP-specific hardware, software, or configuration problem may exist or an STP/SG routing mis-configuration problem may exist
4. It is recommended to contact [#unique_131](#) for assistance if needed.

3.83.4 SS7RxMsgRateAvg

Measurement ID

9153

Measurement Group

Server Resource Usage

Measurement Type

Max

Measurement Dimension

Single

Description

The average Ingress Message Rate (messages per second) during the collection interval. The Ingress Message Rate is the number of non-SNM (SI > 0) messages that M3UA attempts to queue in the M3RL Stack Event Queue.

Collection Interval

5 min

Peg Condition

The average of all Ingress Message Rate samples taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. This measurement is primarily intended to assist in evaluating the need for additional MP processing capacity at a Network Element.
2. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an MP over several collection intervals, then the number of MPs in the Network Element may need to be increased.
3. If the peak and average for an individual MP is significantly different than other MPs in the same Network Element then an MP-specific hardware, software, or configuration problem may exist or an STP/SG routing mis-configuration problem may exist.
4. It is recommended to contact [#unique_131](#) for assistance if needed.

3.83.5 ItuiPDUUtilPeak

Measurement ID

9237

Measurement Group

Server Resource Usage

Measurement Type

Max

Measurement Dimension

Single

Description

The peak ITUI/ITUN PDU Buffer Pool utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

The maximum SS7 ITUI/ITUN PDU Buffer Pool utilization sample taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. ITUI PDU is allocated to each ITUI message that arrives at an MP and is de-allocated when message processing completes. This measurement is useful for evaluating whether persistent network problems exist. In general PDU buffers are engineered for required SS7 domains and the processing capacity of the MP. If network problems exist, delaying the off-loading of egress messages from the MP, then PDUs/messages will sit in internal SS7 queues.
2. If both the peak and average measurements for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an MP when the Ingress Message Rate and/or SS7 Process CPU Utilization measurements are below the recommended maximum engineered capacity of an MP, then a network (IP or SS7) problem may exist. Looking at these measurements on a time of day basis may provide additional insight into potential network problems.
3. If the peak and average for an individual MP is significantly different than other MPs in the same Network Element then an MP-specific software problem may exist (e.g., a buffer pool leak).
4. It is recommended to contact [#unique_131](#) for assistance if needed.

3.83.6 ITUPDUUtilAvg

Measurement ID

9238

Measurement Group

Server Resource Usage

Measurement Type

Average

Measurement Dimension

Single

Description

The average ITUI/ITUN PDU Buffer Pool utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

The average of all SS7 ITUI/ITUN PDU Buffer Pool utilization samples taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. ITUI PDU is allocated to each ITUI message that arrives at an MP and is de-allocated when message processing completes. This measurement is useful for evaluating whether persistent network problems exist. In general PDU buffers are engineered for required

SS7 domains and the processing capacity of the MP. If network problems exist, delaying the off-loading of egress messages from the MP, then PDUs/messages will sit in internal SS7 queues.

2. If both the peak and average measurements for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an MP when the Ingress Message Rate and/or SS7 Process CPU Utilization measurements are below the recommended maximum engineered capacity of an MP, then a network (IP or SS7) problem may exist. Looking at these measurements on a time of day basis may provide additional insight into potential network problems.
3. If the peak and average for an individual MP is significantly different than other MPs in the same Network Element then an MP-specific software problem may exist (e.g., a buffer pool leak).
4. It is recommended to contact [#unique_131](#) for assistance if needed.

3.83.7 ANSIPDUUtilPeak

Measurement ID

9243

Measurement Group

Server Resource Usage

Measurement Type

Max

Measurement Dimension

Single

Description

The peak ANSI PDU Buffer Pool utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

The maximum ANSI PDU buffer pool utilization sample taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. ANSI PDU is allocated to each ANSI message that arrives at an MP and is de-allocated when message processing completes. This measurement is useful for evaluating whether persistent network problems exist. In general PDU buffers are engineered for required SS7 domains and the processing capacity of the MP. If network problems exist, delaying the off-loading of egress messages from the MP, then PDUs/messages will sit in internal SS7 queues.
2. If both the peak and average measurements for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an MP when the Ingress Message Rate and/or SS7 Process CPU Utilization

measurements are below the recommended maximum engineered capacity of an MP, then a network (IP or SS7) problem may exist. Looking at these measurements on a time of day basis may provide additional insight into potential network problems.

3. If the peak and average for an individual MP is significantly different than other MPs in the same Network Element then an MP-specific software problem may exist (e.g., a buffer pool leak).
4. It is recommended to contact [#unique_131](#) for assistance if needed.

3.83.8 AnsiPDUUtilAvg

Measurement ID

9244

Measurement Group

Server Resource Usage

Measurement Type

Average

Measurement Dimension

Single

Description

The average ANSI PDU Buffer Pool utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

The average of all ANSI PDU buffer pool utilization samples taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. ANSI PDU is allocated to each ANSI message that arrives at an MP and is de-allocated when message processing completes. This measurement is useful for evaluating whether persistent network problems exist. In general PDU buffers are engineered for required SS7 domains and the processing capacity of the MP. If network problems exist, delaying the off-loading of egress messages from the MP, then PDUs/messages will sit in internal SS7 queues.
2. If both the peak and average measurements for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an MP when the Ingress Message Rate and/or SS7 Process CPU Utilization measurements are below the recommended maximum engineered capacity of an MP, then a network (IP or SS7) problem may exist. Looking at these measurements on a time of day basis may provide additional insight into potential network problems.
3. If the peak and average for an individual MP is significantly different than other MPs in the same Network Element then an MP-specific software problem may exist (e.g., a buffer pool leak).
4. It is recommended to contact [#unique_131](#) for assistance if needed.

3.84 Server SCCP Exception measurements

3.84.1 EvError

Measurement ID

9901

Measurement Group

Server SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of error trace conditions.

This indicates that an expected but abnormal path was taken in the software, which warrants further investigation. By default, error tracing is disabled. Non-zero values in this measurement indicate that something is occurring that would have generated an error trace, were error tracing enabled. These error trace conditions should not affect service; situations that are service affecting will be covered by Alarms or Events.

Collection Interval

Peg Condition

30 min

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [#unique_131](#) for assistance if any unexpected non-zero values in this measurement occur.

3.84.2 EvVital

Measurement ID

9900

Measurement Group

Server SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of vital trace conditions encountered. A vital trace indicates that an unexpected path was taken in the software, which warrants further investigation. These vital trace conditions should not affect service; situations that are service affecting will be covered by Alarms or Events.

During application start-up and shutdown, vital traces are used to show details that can aid in debugging of initialization and shutdown problems. These traces are always enabled and cannot be turned off.

It is a VITAL error condition for any other instance.

Collection Interval**Peg Condition**

30 min

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [#unique_131](#) for assistance if any unexpected non-zero values in this measurement occur.

3.84.3 RxMaxTpsExceeded

Measurement ID

9149

Measurement Group

Server SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress SCCP messages that were discarded because of the Local MP Maximum TPS limit.

Collection Interval

30 min

Peg Condition

For each message discarded

Measurement Scope

NE, Server

Recovery

1. The MP is approaching or exceeding its engineered traffic handling capacity. If one or more MPs in a server site have failed, the traffic will be distributed among the remaining MPs in the server site. You can monitor MP server status from the GUI main menu under **Status & Manage**, and then **Server Status**.

2. The misconfiguration of STP routing may result in too much traffic being distributed to the MP. You can monitor the ingress traffic rate of each MP from the GUI main menu under **Status & Manage**, and then **KPIs**. Each MP in the server site should be receiving approximately the same ingress transaction per second.
3. There may be an insufficient number of MPs configured to handle the network traffic load. You can monitor the ingress traffic rate of each MP from the GUI main menu under **Status & Manage**, and then **KPIs**. If all MPs are in a congestion state then the offered load to the server site is exceeding its capacity.
4. The SS7 process may be experiencing problems. Examine the alarm log from the GUI main menu under **Alarms & Events**.
5. It is recommended to contact [#unique_131](#) for assistance if needed.

3.84.4 RxMPCongestion

Measurement ID
9175

Measurement Group
Server SCCP Exception

Measurement Type
Simple

Measurement Dimension
Single

Description
The number of ingress SCCP messages that were discarded because of local MP congestion.

Collection Interval
30 min

Peg Condition
For each message discarded

Measurement Scope
NE, Server

Recovery

1. If one or more MPs in a server site have failed, the traffic will be distributed among the remaining MPs in the server site. You can monitor MP server status from the GUI main menu under **Status & Control**, and then **Server Status**.
2. The misconfiguration of STP routing may result in too much traffic being distributed to the MP. You can monitor the ingress traffic rate of each MP from the GUI main menu under **Status & Control**, and then **KPIs**. Each MP in the server site should be receiving approximately the same ingress transaction per second.
3. There may be an insufficient number of MPs configured to handle the network traffic load. You can monitor the ingress traffic rate of each MP from the GUI main menu under **Status & Control**, and then **KPIs**. If all MPs are in a congestion state then the offered load to the server site is exceeding its capacity.

4. The SS7 process may be experiencing problems. The alarm log should be examined from the GUI main menu under **Alarms & Events**.
5. It is recommended to contact [#unique_131](#) for assistance if needed.

3.84.5 RxSCCPInvalidDPC

Measurement ID

9055

Measurement Group

Server SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress messages SCCP discarded because the MTP point code was present but was not a TPC or CPC for the signaling standard of the message.

Collection Interval

30 min

Peg Condition

For each message discarded

Measurement Scope

NE, Server

Recovery

- This count shows how many ingress messages SCCP discarded because the point code received in the MTP was not encoded correctly (same as TPC or CPC) for the signaling standard of the message. If a high number of these errors occurs, it indicates that an encoding error exists at the originator or that the originator of the message may be misconfigured. It is recommended to contact [#unique_131](#) for assistance.

3.84.6 RxSCCPInvalidSSN

Measurement ID

9056

Measurement Group

Server SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress messages SCCP discarded because the CdPA/CgPA SSN was present but had an invalid value (SSN < 1 or SSN > 254).

Collection Interval

30 min

Peg Condition

For each message discarded

Measurement Scope

NE, Server

Recovery

- If a high number of these errors occurs, it indicates that an encoding error exists at the originator or that the originator of the message may be misconfigured.

3.84.7 RxSCCPInvalidMsg

Measurement ID

9057

Measurement Group

Server SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress messages SCCP discarded because the message type is not currently supported.

 **Note:**

Only the following connectionless message types are supported: UDT, XUDT, UDTS, and XUDTS. Valid SCMG message types are SSA, SSP, and SST.

Collection Interval

30 min

Peg Condition

For each message discarded for an invalid Message Type

Measurement Scope

NE, Server

Recovery

- If a high number of these errors occurs, then the originator of the message may be misconfigured.

3.84.8 RxSCCPInvalidHop

Measurement ID

9058

Measurement Group

Server SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of ingress messages SCCP discarded because of a **Hop Counter** violation associated with **CdPA RI=route on GT**.

Collection Interval

30 min

Peg Condition

For each message discarded

Measurement Scope

NE, Server

Recovery

- If this error occurs, then either the originator of the message is setting the initial value too low or the STPs are rerouting the message too many times due to a possible **STP** routing misconfiguration. It is recommended to contact [#unique_131](#) for assistance.

3.84.9 RxSCCPInvalidClass

Measurement ID

9059

Measurement Group

Server SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress messages SCCP discarded because of an invalid protocol class.



Note:

Only classes 0 and 1 are supported.

Collection Interval

30 min

Peg Condition

For each message discarded for an invalid Protocol Class

Measurement Scope

NE, Server

Recovery

- If a high number of these errors occurs, then the originator of the message may be misconfigured or the network is misconfigured causing mis-routing of messages.

3.84.10 RxSCCPInvalidGTI

Measurement ID

9060

Measurement Group

Server SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress messages SCCP discarded because an invalid Global Title Indicator (**GTI**) value was received. This only applies to messages received with RI=route on GT.



Note:

GTI=0 is invalid.

Collection Interval

30 min

Peg Condition

For each message discarded

Measurement Scope

NE, Server

Recovery

- If a high number of these errors occurs, then the originator of the message may be misconfigured.

3.84.11 RxSCCPReassFAIL

Measurement ID

9306

Measurement Group

Server SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of times the reassembly procedure failed.

Collection Interval

30 min

Peg Condition

For each reassembly failure for ingress segmented **XUDT** message received from network

Measurement Scope

Network, NE, Server

Recovery

1. This value provides a measure of number of reassembly procedure failures encountered during the reporting interval.
2. Check for any related additional Events or Alarms from the server.

3.84.12 RxSCCPReassInternalFail

Measurement ID

9311

Measurement Group

Server SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of reassembly procedure failures due to internal error or resource limitation.

Collection Interval

30 min

Peg Condition

N/A

Measurement Scope

Network, NE, Server

Recovery

1. This value provides a measure of number of reassembly procedure failures encountered due to errors encountered on server, during the reporting interval.
2. Non-zero value for this measurement tag represents resource usage issues on the server. Check for any related additional Events or Alarms from the server.

3.84.13 RxSCCPReassOOSFail

Measurement ID

9310

Measurement Group

Server SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of reassembly procedure failures due to out-of-sequence segments received from network.

Collection Interval

30 min

Peg Condition

For each ongoing reassembly procedure failure as a result of out of order arrival of remaining segments.

Measurement Scope

Network, NE, Server

Recovery

1. This value provides a measure of number of reassembly procedure failures encountered due to “out of order arrival of remaining segments in a reassembly procedure” reason, during the reporting interval.
2. Non-zero value for this measurement tag represents sequencing issues in packet arrival from network or any other routing error or delays in network or on server. Check for any related additional Events or Alarms from the server.

3.84.14 RxSCCPReassTExp

Measurement ID

9309

Measurement Group

Server SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of reassembly procedure failures due to reassembly timer expiry.

Collection Interval

30 min

Peg Condition

For each reassembly procedure failures due to reassembly timer expiry

Measurement Scope

Network, NE, Server

Recovery

1. This value provides a measure of number of reassembly procedure failures encountered due to "Reassembly Timer Expiry" reason, during the reporting interval.
2. Non-zero value for this measurement tag represents latency issues in packet arrival from network or any other delay on server resulting in reassembly timer expiry. Check for any related additional Events or Alarms from the server.

3.84.15 RxSCCPSegmentOOS

Measurement ID

9308

Measurement Group

Server SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of **XUDT** segments received out-of-sequence from network.

Collection Interval

30 min

Peg Condition

On received XUDT segments with F bit set as 0 and received segments could not be attached to any open reassembly procedure (i.e., reassembly procedure was not started for this and no key found to associate the segments to a in-process reassembly)

Measurement Scope

Network, NE, Server

Recovery

1. This value provides a measure of number of segmented XUDT messages received with sequence delivery option but arrived out of sequence at **SCCP** Layer, during the reporting interval.
2. For these out of sequence received XUDT segments, there is no ongoing reassembly procedure to attach these segments.
3. Non-zero value for this measurement tag represents in-sequence routing or reassembly key uniqueness issue. Check for any related additional Events or Alarms from the server.

3.84.16 RxSCCPSgmntsPartReassFAIL

Measurement ID

9318

Measurement Group

Server SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of partially reassembled segments discarded due to any errors.

Collection Interval

30 min

Peg Condition

For each segmented XUDT message that was buffered and discarded due to reassembly procedure failure

Measurement Scope

Network, NE, Server

Recovery

- This value provides cumulative measure of ingress segmented XUDT messages which were buffered but discarded due to reassembly procedure failure.

3.84.17 RxSCCPUnavailSSN

Measurement ID

9202

Measurement Group

Server SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of ingress messages (RI=SSN) SCCP discarded because the CdPA SSN (Local SSN for MPs TPC) was manually disabled.

Collection Interval

30 min

Peg Condition

For each message discarded

Measurement Scope

NE, Server

Recovery

- This value provides a measure of how many ingress (RI=SSN) messages SCCP discarded because the affected Local Subsystem status was manually disabled. The Status of Local Subsystems (Local SCCP Users, LSUs) for a Local Signaling Point can be viewed via the GUI Main Menu: **SS7/SIGTRAN**, and then **Maintenance**, and then **Local SCCP Users**.

3.84.18 RxSCCPUnknownSSN

Measurement ID

9203

Measurement Group

Server SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of ingress messages (RI=SSN) SCCP discarded because the CdPA SSN (Local SSN for MPs TPC) is not configured for the MTP DPC's signaling domain

Collection Interval

30 min

Peg Condition

For each message discarded

Measurement Scope

NE, Server

Recovery

- This value provides a measure of how many ingress (RI=SSN) messages SCCP discarded because the affected Local Subsystem is not configured for the MTP DPC's signaling domain. The Local Subsystems (Local SCCP User, LSUs) for a Local Signaling

Point can be configured via the GUI Main Menu: **SS7/SIGTRAN**, and then **Configuration**, and then **Local SCCP Users [Insert]**.

3.84.19 RxSCCPXudtInvSgmt

Measurement ID

9316

Measurement Group

Server SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of received XUDT segments resulted in protocol violation decode error.

Collection Interval

30 min

Peg Condition

For protocol decoding errors while parsing ingress segmented XUDT

Measurement Scope

Network, NE, Server

Recovery

- This value provides a measure of malformed segmented XUDT messages received from the network.

3.84.20 SCCPGTTFailure

Measurement ID

9206

Measurement Group

Server SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Count of SCCP GTT Failures due to default GTT handling in SS7Stack.

Collection Interval

30 min

Peg Condition

Default GTT Processing by SS7 Stack, when Application did not implement "rt-on-gt" message handling

Measurement Scope

NE, Server

Recovery

- This value provides a measure of how many "ri=rt-ongt" messages were subject to default Global Title Translation processing. This can occur when Application is using SS7 Stack for processing only "rt-on-ssn" messages OR "rt-on-gt" message handling is not implemented in Application.

3.84.21 SCCPStackQueueFull

Measurement ID

9159

Measurement Group

Server SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress SCCP messages that were discarded because the SCCP Stack Event Queue was full.

Collection Interval

30 min

Peg Condition

For each message discarded

Measurement Scope

NE, Server

Recovery

1. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an MP over several collection intervals, then the number of MPs in the Network Element may need to be increased.
2. If the peak and average for an individual MP are significantly different than other MPs in the same Network Element, then an MP-specific hardware, software, or configuration problem may exist.
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.84.22 SCMGErrors

Measurement ID

9205

Measurement Group

Server SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of ingress/egress malformed or unsupported messages.

Collection Interval

30 min

Peg Condition

For each ingress/egress malformed or unsupported SCCP Management message

Measurement Scope

NE, Server

Recovery

- This value provides a measure of how many malformed or unsupported SCCP management messages were discarded. Supported SCMG messages are SST, SSP and SSA. Any other SCCP Management message is pegged under this tag.

3.84.23 TxSCCPCongestion

Measurement ID

9053

Measurement Group

Server SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of egress messages SCCP discarded because the RSP/Destination's congestion level was higher than the message's priority.

Collection Interval

30 min

Peg Condition

For each message discarded

Measurement Scope

NE, Server

Recovery

- You can view the remote RSPs/Destinations to SCCP and their congestion status from the GUI main menu under **SS7/Sigtran**, and then **Maintenance**, and then **Remote MTP3 Users**.

3.84.24 TxSCCPInvUserMsgs

Measurement ID

9068

Measurement Group

Server SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

SCCP User submitted an Invalid/malformed/unsupported message for egress routing (SCCP User->SCCP N-UnitDataReq)

Collection Interval

30 min

Peg Condition

For each message discarded

Measurement Scope

NE, Server

Recovery

- This value provides a measure of how many egress SCCP User messages encountered validation failure on SCCP. If a high number of these errors occur, then it indicates an encoding error at the originator or the originator of the message may be mis-configured.

3.84.25 TxSCCPInvalidDPC

Measurement ID

9051

Measurement Group

Server SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of egress messages SCCP discarded because the CdPA signaling point code is present but is not valid for the signaling standard of the message.

Collection Interval

30 min

Peg Condition

For each message discarded

Measurement Scope

NE, Server

Recovery

- If a high number of these errors occurs, it indicates that an encoding error exists at the originator or that the originator of the message may be misconfigured.

3.84.26 TxSCCPInvalidSSN

Measurement ID

9052

Measurement Group

Server SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of egress messages SCCP discarded because the CdPA/CgPA SSN was present but had an invalid value (SSN < 1 or SSN > 254).

Collection Interval

30 min

Peg Condition

For each message discarded

Measurement Scope

NE, Server

Recovery

- If a high number of these errors occurs, it indicates that an encoding error exists at the originator or that the originator of the message may be misconfigured.

3.84.27 TxSCCPSegmentFAIL

Measurement ID

9303

Measurement Group

Server SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of times segmentation procedure failed.

Collection Interval

30 min

Peg Condition

On failure in completion of segmentation procedure for each large egress user data message.

Measurement Scope

Network, NE, Server

Recovery

1. This value provides a measure of number of segmentation procedure completion failures for large egress user data messages. Segmentation Error Procedure is executed on each such failure.
2. Check for any related additional Events or Alarms from the server.

3.84.28 TxSCCPUnavailDPC

Measurement ID

9063

Measurement Group

Server SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of egress messages SCCP discarded because the affected DPC status was marked prohibited/unavailable.

Collection Interval

30 min

Peg Condition

For each message discarded

Measurement Scope

NE, Server

Recovery

- This value provides a measure of how many egress messages SCCP discarded because the RSP/Destination status was paused / prohibited at SCCP. Point code status is received from M3RL via the MTP-PAUSE and MTP-RESUME indications. The remote RSPs/Destinations known to SCCP and their status can be viewed via the GUI Main Menu: **SS7/SIGTRAN**, and then **Maintenance**, and then **Remote Signaling Points**.

3.84.29 TxSCCPUnavailSSN

Measurement ID

9065

Measurement Group

Server SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of egress messages SCCP discarded because the CdPA or Affected SSN was either marked prohibited/unavailable.

Collection Interval

30 min

Peg Condition

For each message discarded

Measurement Scope

NE, Server

Recovery

- This value provides a measure of how many egress messages SCCP discarded because the Remote Subsystem status was Prohibited. Subsystem status is received from M3RL via the SS-STATUS indications or via SCMG SSA and SSP messages. The remote subsystems (RMUs) known to SCCP and their status can be viewed via the GUI Main Menu: **SS7/SIGTRAN**, and then **Maintenance**, and then **Remote MTP3 Users**.

3.84.30 TxSCCPUnknownDPC

Measurement ID

9064

Measurement Group

Server SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of egress messages SCCP discarded because the affected DPC in message is not configured or is unknown.

Collection Interval

30 min

Peg Condition

For each message discarded

Measurement Scope

NE, Server

Recovery

- This value provides a measure of how many egress messages SCCP discarded because the RSP or affected DPC in the message is not configured and is unknown at SCCP. The remote RSPs/affected Destinations known to SCCP and their status can be viewed via the GUI Main Menu: **SS7/SIGTRAN**, and then **Maintenance**, and then **Remote Signaling Points**.

3.84.31 TxSCCPUnknownSSN

Measurement ID

9066

Measurement Group

Server SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of egress messages SCCP discarded because the CdPA or affected SSN was unknown.

Collection Interval

30 min

Peg Condition

For each message discarded

Measurement Scope

NE, Server

Recovery

- This value provides a measure of how many egress messages SCCP discarded because the Subsystem was unknown to SCCP. The remote subsystems (RMUs) can be configured from the GUI Main Menu: **SS7/SIGTRAN**, and then **Configuration**, and then **Remote MTP3 Users** and their status can be viewed via the GUI Main Menu: **SS7/SIGTRAN**, and then **Maintenance**, and then **Remote MTP3 Users**.

3.85 Server SCCP Performance measurements

3.85.1 TxSCCPMsgs

Measurement ID

9050

Measurement Group

Server SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Egress messages sent by SCCP to M3RL (SCCP->M3RL MTP-TRANSFER request). This value provides a measure of how many egress SCCP messages are being processed by the MP server.

Collection Interval

30 min

Peg Condition

For each message sent to M3RL

Measurement Scope

NE, Server

Recovery

- No action required.

3.85.2 RxSCCPMsgs

Measurement ID

9054

Measurement Group

Server SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Ingress messages received by SCCP from M3RL (M3RL> SCCP MTP TRANSFER indication).

Collection Interval

30 min

Peg Condition

For each message received from M3RL

Measurement Scope

NE, Server

Recovery

- No action required.

3.85.3 TxSCCPUserMsgs

Measurement ID

9067

Measurement Group

Server SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Egress messages sent by SCCP User to SCCP to M3RL (SCCPUser-> SCCP N-UnitDataReq->M3RL MTP-TRANSFER request)

Collection Interval

30 min

Peg Condition

For each message sent to M3RL

Measurement Scope

NE, Server

Recovery

- This value provides a measure of how many egress SCCP User messages are being processed by the MP server.

3.85.4 TxSCMGMsgs

Measurement ID

9069

Measurement Group

Server SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of valid egress SCMG messages.

Collection Interval

30 min

Peg Condition

For each valid message generated by SCMG

Measurement Scope

NE, Server

Recovery

- This value provides a measure of egress SCCP Management messages This could be due to local or remote SCCP/SCCP Users status. The Status of Local or Remote Subsystems can be viewed via the GUI Main Menu: **SS7/SIGTRAN**, and then **Maintenance**, and then **Local SCCP Users** or **SS7/SIGTRAN**, and then **Maintenance**, and then **Remote MTP3 Users**.

3.85.5 TxMsgRatePeak

Measurement ID

9324

Measurement Group

Server SCCP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak Ingress Message Rate (in messages per second) measured during the collection interval. The Ingress Message Rate is the number of non-SNM (SI > 0) messages that M3UA attempts to queue in the M3RL Stack Event Queue.

Collection Interval

30 min

Peg Condition

The maximum Ingress Message Rate (messages per second) sample taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an MP over several collection intervals, then the number of MPs in the Network Element may need to be increased.
2. If the peak and average for an individual MP is significantly different than other MPs in the same Network Element then an MP-specific hardware, software, or configuration problem may exist or an STP/SG routing misconfiguration problem may exist.
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.85.6 TxMsgRateAvg

Measurement ID

9323

Measurement Group

Server SCCP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average Egress Message Rate (messages per second) during the collection interval.

Collection Interval

30 min

Peg Condition

The average of all Ingress Message Rate samples taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an MP over several collection intervals, then the number of MPs in the Network Element may need to be increased.
2. If the peak and average for an individual MP is significantly different than other MPs in the same Network Element then an MP-specific hardware, software, or configuration problem may exist or an STP/SG routing misconfiguration problem may exist.

3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.85.7 RxSCCPUserMsgs

Measurement ID

9200

Measurement Group

Server SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Ingress SCCP UDT/XUDT messages sent by SCCP to Configured and available SCCP Users using a local SSN (SCCP->SCCP User N-UnitDataInd)

Collection Interval

30 min

Peg Condition

For each UDT/XUDT message received for SCCP user and was delivered to SCCP user.

Measurement Scope

NE, Server

Recovery

- This value provides a measure of how many ingress SCCP User (RI=SSN) messages are being forwarded to SCCP User application hosted by the MP server.

3.85.8 RxSCCPUserNoticeMsgs

Measurement ID

9201

Measurement Group

Server SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Ingress SCCP UDTS/XUDTS (RI=SSN) messages converted into N-Notice-Ind by SCCP and sent to the configured and available SCCP Users using a local SSN (SCCP->SCCP User N-NoticeInd)

Collection Interval

30 min

Peg Condition

For each UDTs/XUDTs message received for SCCP user and a notification was delivered to SCCP user

Measurement Scope

NE, Server

Recovery

1. This value provides a measure of how many ingress SCCP UDTs/XUDTs (RI=SSN) messages were received and converted into N-Notice-Ind and forwarded to SCCP User application hosted by the MP server.
2. If a high number of these errors occur, then it indicates the remote SCCP/SCCP Application could not process the message as expected and resulted in executing sccp error handling procedure. It's normally associated with an event/alarm condition. If a high number of these errors occur, then check the event history under **Main Menu**, and then **Alarms & Events**, and then **View History**.

3.85.9 RxSCMGMsgs

Measurement ID

9204

Measurement Group

Server SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of valid ingress SCMG messages.

Collection Interval

30 min

Peg Condition

For each valid message received for SCMG

Measurement Scope

NE, Server

Recovery

- This value provides a measure of ingress SCCP Management messages. This could be due to local or remote SCCP/SCCP Users status. The Status of Local or Remote Subsystems can be viewed via the GUI Main Menu **SS7/SIGTRAN**, and then **Maintenance**, and then **Local SCCP Users** or **SS7/SIGTRAN**, and then **Maintenance**, and then **Remote MTP3 Users**.

3.85.10 SCCPStackQueuePeak

Measurement ID

9157

Measurement Group

Server SCCP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak SCCP Stack Event Queue utilization (0-100%) measured during the collection interval. This measurement is primarily intended to assist in evaluating the need for additional MP processing capacity at a Network Element.

Collection Interval

30 min

Peg Condition

The maximum SCCP Stack Event Queue utilization sample taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an MP over several collection intervals, then the number of MPs in the Network Element may need to be increased.
2. If the peak and average for an individual MP are significantly different than other MPs in the same Network Element, then an MP-specific hardware, software, or configuration problem may exist.
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.85.11 SCCPStackQueueAvg

Measurement ID

9158

Measurement Group

Server SCCP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average SCCP Stack Event Queue utilization (0-100%) measured during the collection interval. This measurement is primarily intended to assist in evaluating the need for additional MP processing capacity at a Network Element.

Collection Interval

30 min

Peg Condition

The average of all SCCP Stack Event Queue utilization samples taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an MP over several collection intervals, then the number of MPs in the Network Element may need to be increased.
2. If the peak and average for an individual MP is significantly different than other MPs in the same Network Element then an MP-specific hardware, software, or configuration problem may exist.
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.85.12 TxSCCPLargeMsgs

Measurement ID

9300

Measurement Group

Server SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of egress large user data messages for segmentation.

Collection Interval

30 min

Peg Condition

For each large user data message submitted by **SCCP** User for egress routing.

Measurement Scope

Network, NE, Server

Recovery

- This value provides a measure of how many large user data messages are submitted to SCCP layer for egress routing during the reporting interval. This measurement peg value

divided by the interval yields the average rate of large egress user data messages for the server.

3.85.13 TxSCCPSegmentsPerMsg

Measurement ID

9301

Measurement Group

Server SCCP Performance

Measurement Type

Simple

Measurement Dimension

Arrayed-Bucketed (Index on number of segments created for each larger egress user data message)

Description

The number of segments created for each large egress user data message.

Collection Interval

30 min

Peg Condition

When the segmentation procedure is completed on each large egress user data packet, using “number of segments” as index.

Measurement Scope

Network, NE, Server

Recovery

1. Values in this arrayed measurement provides a measure of number of **XUDT** messages created each time a large user data messages is segmented by **SCCP** layer.
2. This arrayed measurement can be used for heuristics on segments created during the reporting interval and the SS7 traffic rate impact due to large egress user data size traffic.

3.85.14 TxSCCPSegmentSUCC

Measurement ID

9302

Measurement Group

Server SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of times segmentation procedure completed successfully.

Collection Interval

30 min

Peg Condition

On successful completion of segmentation procedure for each large egress user data message (i.e. user data length is greater than **SCCP** Option Configured value).

Measurement Scope

Network, NE, Server

Recovery

- This value provides a measure of number of successful segmentation procedure completion for large egress user data messages are successfully segmented and corresponding **XUDT** messages are forwarded by SCCP layer for egress routing during the reporting interval.

3.85.15 RxSCCPSgmntXudtMsgs

Measurement ID

9304

Measurement Group

Server SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress segmented **XUDT** messages received from network.

Collection Interval

30 min

Peg Condition

For each segmented XUDT message received from network.

Measurement Scope

Network, NE, Server

Recovery

1. This value provides a measure of how many segmented XUDT messages are received by **SCCP** layer during the reporting interval. SCCP will execute reassembly procedure for each such received message.
2. This measurement peg value divided by the interval yields the average rate of new segmented XUDT messages received from the network.

3.85.16 RxSCCPReassSUCC

Measurement ID

9305

Measurement Group

Server SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of times reassembly procedure successfully completed.

Collection Interval

30 min

Peg Condition

On successful completion of reassembly procedure using a number of ingress segmented **XUDT** messages.

Measurement Scope

Network, NE, Server

Recovery

- This value provides a measure of number of successful reassembly procedure (using a number of ingress segmented XUDT messages) completion during the reporting interval. The reassembled user data is forwarded as single packet to **SCCP** User.

3.85.17 RxSCCPSgmntReassPerMsg

Measurement ID

9307

Measurement Group

Server SCCP Performance

Measurement Type

Simple

Measurement Dimension

Arrayed-Bucketed (Index on number of segments reassembled)

Description

The number of segments reassembled to create one large ingress user data message.

Collection Interval

30 min

Peg Condition

This is an arrayed measurement with “number of **XUDT** segments assembled” as index. Peg this measurement using “number of XUDT segments assembled” as index, when reassembly procedure is completed using more than one ingress segmented XUDT message.

Measurement Scope

Network, NE, Server

Recovery

1. Values in this arrayed measurement provides a measure of number of segmented XUDT messages were reassembled for each reassembly procedure before forwarding a large user data messages to **SCCP** User.
2. This arrayed measurement can be used for heuristics on number of segments network used for segmenting large message during the reporting interval and the SS7 traffic rate impact due to segmented XUDT messages on overall SCCP processing rate.

3.85.18 RxSCCPRtGtFrwdAppl

Measurement ID

9312

Measurement Group

Server SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Rt On Gt Messages forwarded to Local Application.

Collection Interval

30 min

Peg Condition

N/A

Measurement Scope

Network, NE, Server

Recovery

- This value provides a measure of number of messages received with CDPA RI=GT and are forwarded to Local Application due to configured SCCP Option.

3.85.19 RxSCCPRtGtXudtSgmt

Measurement ID

9313

Measurement Group

Server SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Rt on Gt segmented XUDT messages received from network

Collection Interval

30 min

Peg Condition

N/A

Measurement Scope

Network, NE, Server

Recovery

- This value provides a measure of number of Rt on Gt segmented XUDT messages received from the network.

3.85.20 RxSCCP RtSsnXudtSgmt

Measurement ID

9314

Measurement Group

Server SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Rt on Ssn segmented XUDT messages received from network.

Collection Interval

30 min

Peg Condition

N/A

Measurement Scope

Network, NE, Server

Recovery

- This value provides a measure of number of Route on SSN segmented XUDT messages received from the network.

3.85.21 RxSCCPSegmentSrvcMsg

Measurement ID

9315

Measurement Group

Server SCCP Performance

Measurement Type

Single

Measurement Dimension

Simple

Description

The number of Segmented XUDTS messages received from network.

Collection Interval

30 min

Peg Condition

For each segmented XUDTS messages received from network

Measurement Scope

Network, NE, Server

Recovery

- This value provides a measure of number of segmented XUDTS messages received from the network.

3.85.22 RxSCCPSgmntsReassSUCC

Measurement ID

9317

Measurement Group

Server SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of XUDT segments reassembled successfully.

Collection Interval

30 min

Peg Condition

For each well-formed ingress segmented XUDT message resulting in a successful reassembly procedure

Measurement Scope

Network, NE, Server

Recovery

- This value provides a measure of well-formed ingress segmented XUDT messages that are reassembled successfully.

3.86 Server TCAP Exception measurements

3.86.1 TCAPComponentQueueFull

Measurement ID

9235

Measurement Group

Server TCAP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of egress components discarded during the reporting interval due to the MP server's internal TCAP component queue being full.

Collection Interval

30 min

Peg Condition

Each time the Dialogue Cleanup Timer expires

Measurement Scope

Site

Recovery

1. If this measurement has a non-zero value, look for Event 19267 in the Alarm History during the time period covered by the measurement reporting interval. If the event is found, refer to *Alarms and KPIs reference* for information about Event 19267.
2. It is recommended to contact [#unique_131](#) for assistance in determining the exact cause of the failure.

3.86.2 TCAPDialogueTimeout

Measurement ID

9234

Measurement Group

Server TCAP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of dialogues aborted by the local TCAP due to a dialogue timeout during the reporting interval.

 **Note:**

A dialogue timer is only started if the local TCAP application sends a `Begin` message that contains no components. The purpose of the dialogue timer is to prevent stale dialogues if the message never reaches the remote TCAP peer or if the remote TCAP peer never responds.

Collection Interval

30 min

Peg Condition

Each time the Dialogue Cleanup Timer expires

Measurement Scope

Network, NE, Server

Recovery

1. If this measurement has a non-zero value, look for Event 19267 - Dialogue removed by dialogue cleanup timer in the **Alarm History** during the time period covered by the measurement reporting interval.
2. If you can locate the corresponding event, see the appropriate event documentation for how to proceed.
3. It is recommended to contact [#unique_131](#) for further assistance in determining the exact cause of the failure.

3.86.3 TCAPAbtPeer

Measurement ID

9233

Measurement Group

Server TCAP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of dialogues aborted by the remote TCAP application using U-Abort during the reporting interval.

Collection Interval

30 min

Peg Condition

Each time the tcUAbortInd function is called due to receipt of a U-Abort from the remote TCAP peer

Measurement Scope

Network, NE, Server

Recovery

1. If this measurement has a non-zero value, look for Event 19269 in the GUI under **Alarm History** during the time period covered by the measurement reporting interval.
2. If you can locate the corresponding event, see the appropriate event documentation for how to proceed.
3. It is recommended to contact [#unique_131](#) for further assistance in determining the exact cause of the failure.

3.86.4 TCAPAbtTcu

Measurement ID

9232

Measurement Group

Server TCAP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of dialogues aborted by the local TCAP during the reporting interval due to a decision by the local TCAP application.

Collection Interval

30 min

Peg Condition

Each time the tcUAbortReq function is called

Measurement Scope

Network, NE, Server

Recovery

1. Look for related events in the GUI **Alarm History** log during the time period of the measurement reporting interval.

2. It is recommended to contact [#unique_131](#) for further assistance in determining the exact cause of the failure.

3.86.5 TCAPAbrtPeerErr

Measurement ID

9231

Measurement Group

Server TCAP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of dialogues aborted by the remote TCAP application using P-Abort during the reporting interval.

Collection Interval

30 min

Peg Condition

Each time the tcPAbortInd function is called due to a receipt of a P-Abort from the remote TCAP peer

Measurement Scope

Network, NE, Server

Recovery

1. If this measurement has a non-zero value, look for Event 19264 or Event 19266 in the GUI under **Alarm History** during the time period covered by the measurement reporting interval.
2. If you can locate the corresponding event, see the appropriate event documentation for how to proceed.
3. It is recommended to contact [#unique_131](#) for further assistance in determining the exact cause of the failure.

3.86.6 TCAPAbrtTcuErr

Measurement ID

9230

Measurement Group

Server TCAP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of dialogues aborted by the local TCAP during the reporting interval due to an error caused by the local TCAP application.

Collection Interval

30 min

Peg Condition

Each time the tcPAbortInd function is called due to an egress transaction, exception for abort due to the dialogue cleanup timer

Measurement Scope

Network, NE, Server

Recovery

1. If this measurement has a non-zero value, look for Event 19263 or Event 19265 in the GUI under **Alarm History** during the time period covered by the measurement reporting interval.
2. If you can locate the corresponding event, see the appropriate event documentation for how to proceed.
3. It is recommended to contact [#unique_131](#) for further assistance in determining the exact cause of the failure.

3.86.7 TCAPDialogueTblFull

Measurement ID

9229

Measurement Group

Server TCAP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of dialogues (both ingress and egress) discarded during the reporting interval due to the MP server's internal TCAP dialogue table being full.

Collection Interval

30 min

Peg Condition

Each time a record cannot be added to the TcapDialogue table because the table is full

Measurement Scope

Network, NE, Server

Recovery

- If the TCAP dialogue internal table reaches capacity, Alarm 19272 - TCAP active dialogue utilization will be raised with critical severity. Refer to the *DSR Alarms and KPIs Reference* for details about this alarm.

3.86.8 TCAPStackQueueFull

Measurement ID

9228

Measurement Group

Server TCAP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress events discarded during the reporting interval due to the MP server's TCAP internal event queue being full. Events could be incoming TCAP messages or N-Notice indications from SCCP.

Collection Interval

30 min

Peg Condition

Each time an event cannot be added to the TCAP task queue because the queue is full

Measurement Scope

Network, NE, Server

Recovery

- If the TCAP internal event queue reaches capacity, Alarm 19274 - TCAP stack event queue utilization will be raised with critical severity. Refer to the *DSR Alarms and KPIs Reference* for details about this alarm.

3.86.9 TCAPOpCancelTcu

Measurement ID

9227

Measurement Group

Server TCAP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of egress operations that were cancelled by the local TCAP application during the reporting interval.

Collection Interval

30 min

Peg Condition

Each time the tcUCancelReq function is called

Measurement Scope

Network, NE, Server

Recovery

1. This measurement does not necessarily indicate an error condition. Look for events that may be related during the period of the measurement reporting interval for more details.
2. It is recommended to contact [#unique_131](#) as needed for further assistance.

3.86.10 TCAPOpTimeout

Measurement ID

9226

Measurement Group

Server TCAP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of egress operations that timed out waiting for a response from the remote TCAP peer during the reporting interval.

Collection Interval

30 min

Peg Condition

Each time the tcLCancelInd function is called

Measurement Scope

Network, NE, Server

Recovery

1. If this measurement has a non-zero value, look for Event 19268 - Operation removed by invocation time expiry in the GUI **Alarm History** during the time period covered by the measurement reporting interval.
2. This error may be caused by failure to route the message by one of the underlying layers (e.g., SCCP). Refer to the *DSR Alarms and KPIs Reference* for details about Event 19268 for information about how to proceed.

3. It is recommended to contact [#unique_131](#) for further assistance in determining the exact cause of the failure.

3.86.11 TCAPRetErrPeer

Measurement ID

9225

Measurement Group

Server TCAP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of egress components that resulted in a Return Error response by the remote TCAP peer during the reporting interval.

Collection Interval

30 min

Peg Condition

Each time the tcUErrorInd function is called

Measurement Scope

Network, NE, Server

Recovery

1. If this measurement has a non-zero value, look for Event 19275 - Return error from remote TCAP peer (refer to the *DSR Alarms and KPIs Reference* for details about this event) in the GUI **Alarm History** during the time period covered by the measurement reporting interval.
2. This error is likely caused by a malformed message or unexpected message that we sent to the remote TCAP peer. If you can locate the corresponding event, see the appropriate event documentation for how to proceed.
3. It is recommended to contact [#unique_131](#) for further assistance in determining the exact cause of the failure.

3.86.12 TCAPRetErrTcu

Measurement ID

9224

Measurement Group

Server TCAP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress components that resulted in a Return Error response by the local TCAP application during the reporting interval.

Collection Interval

30 min

Peg Condition

Network, NE, Server

Measurement Scope

Recovery

1. Look for events in the GUI **Alarm History** during the time of the measurement reporting interval for more details related to why the component was discarded.
2. It is recommended to contact [#unique_131](#) for further assistance in determining the exact cause of the failure.

3.86.13 TCAPRejPeer

Measurement ID

9223

Measurement Group

Server TCAP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of egress components rejected by the remote TCAP peer during the reporting interval.

Collection Interval

30 min

Peg Condition

Measurement Scope

Network, NE, Server

Recovery

1. If this measurement has a non-zero value, look for Event 19271 - Operation rejected by remote TCAP peer (refer to the *DSR Alarms and KPIs Reference* for details about this event) in the GUI **Alarm History** during the time period covered by the measurement reporting interval. This error is likely caused by a malformed message or unexpected message that we sent to the remote TCAP peer.

2. If you can locate the corresponding event, see the appropriate documentation for how to proceed.
3. It is recommended to contact [#unique_131](#) for further assistance in determining the exact cause of the failure.

3.86.14 TCAPRejTcu

Measurement ID

9222

Measurement Group

Server TCAP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress components rejected by the local TCAP application during the reporting interval.

Collection Interval

30 min

Peg Condition

Each time the tcUrejectReq function is called

Measurement Scope

Network, NE, Server

Recovery

1. Look for events in the GUI **Alarm History** during the time of the measurement reporting interval for more details related to why the component was discarded.
2. It is recommended to contact [#unique_131](#) for further assistance in determining the exact cause of the failure.

3.86.15 TCAPRejPeerErr

Measurement ID

9221

Measurement Group

Server TCAP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress components discarded due to a component error caused by the remote TCAP peer during the reporting interval.

Collection Interval

30 min

Peg Condition**Measurement Scope**

Network, NE, Server

Recovery

1. If this measurement has a non-zero value, look for Events 19262 - Operation discarded due to malformed component received from remote TCAP peer or Event 19266 - Unexpected event received from remote TCAP peer (refer to the *DSR Alarms and KPIs Reference* for details about these events) in the GUI **Alarm History** during the time period covered by the measurement reporting interval. This error is likely caused by a malformed message or unexpected message from the remote TCAP peer.
2. If you can locate the corresponding event, see the appropriate event documentation for how to proceed.
3. It is recommended to contact [#unique_131](#) for further assistance in determining the exact cause of the failure.

3.86.16 TCAPRejTcuErr

Measurement ID

9220

Measurement Group

Server TCAP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of egress components discarded due to a component error caused by the local TCAP application during the reporting interval.

Collection Interval

30 min

Peg Condition

Each time the tcLRejectInd function is called for an egress component

Measurement Scope

Network, NE, Server

Recovery

1. If this measurement has a non-zero value, look for Event 19265 - Unexpected event received from local TC User (refer to the *DSR Alarms and KPIs Reference* for details about this event) in the GUI **Alarm History** during the time period covered by the measurement reporting interval.
2. If you can locate the corresponding event, see the appropriate event documentation for how to proceed.
3. It is recommended to contact [#unique_131](#) for further assistance in determining the exact cause of the failure.

3.86.17 TCAPComponentTblFull

Measurement ID

9219

Measurement Group

Server TCAP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of egress operations discarded due to the MP server's TCAP component internal table being full during the reporting interval.

Collection Interval

30 min

Peg Condition

Each time an Invoke component record cannot be created in the TcapComponent table because the table is full

Measurement Scope

Network, NE, Server

Recovery

- If the TCAP component internal table reaches capacity, Alarm 19273 - TCAP active operation utilization will be raised with critical severity. Refer to the *DSR Alarms and KPIs Reference* for details about this alarm.

3.86.18 Ss7DeserializationFail

Measurement ID

9322

Measurement Group

Server TCAP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of MAP response message of which deserialization failed.

Collection Interval

30 min

Peg Condition

Measurement Scope

Network, NE, Server

Recovery

- It is recommended to contact [#unique_131](#) for assistance if needed.

3.87 Server TCAP Performance measurements

3.87.1 RxTCAPDialogues

Measurement ID

9210

Measurement Group

Server TCAP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress dialogues created on the MP server during the reporting interval.

Collection Interval

30 min

Peg Condition

Each time a TcapDialogue table record is successfully created as a result of a Begin message from the network.

Measurement Scope

Network, NE, Server

Recovery

- This measurement shows the number of ingress dialogues (i.e., dialogues resulting from receipt of an ITU TCAP Begin message) created on the MP server during the reporting interval. RxTCAPDialogues divided by the reporting interval yields the average rate of ingress dialogues for the MP server.

3.87.2 TxTCAPDialogues

Measurement ID

9211

Measurement Group

Server TCAP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of egress dialogues created on the MP server during the reporting interval.

Collection Interval

30 min

Peg Condition

Each time a TcapDialogue table record is successfully created as a result of a tcBeginReq call from the TC User.

Measurement Scope

Network, NE, Server

Recovery

- This measurement shows the number of egress dialogues (i.e. dialogues resulting from sending an ITU TCAP Begin message) created on the MP server during the reporting interval. TxTCAPDialogues divided by the reporting interval yields the average rate of egress dialogues for the MP server.

3.87.3 TxTCAPOperations

Measurement ID

9212

Measurement Group

Server TCAP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of egress operations created on the MP server during the reporting interval.

Collection Interval

30 min

Peg Condition

Each time a TcapComponent table record is successfully created as a result of a tcInvokeReq call from the TC User.

Measurement Scope

Network, NE, Server

Recovery

- The TxTCAPOperations measurement simply shows the number of egress operations (i.e. TCAP Invokes) created on the MP server during the reporting interval. TxTCAPOperations divided by the reporting interval yields the average rate of egress operations for the MP server.

3.87.4 TCAPStackQueueAvg

Measurement ID

9213

Measurement Group

Server TCAP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average percent utilization during the reporting interval of the MP server's TCAP internal queue used to receive messages from the SCCP layer. The number is expressed as a percentage of the maximum size.

Collection Interval

30 min

Peg Condition

This measurement is driven by the TCAPEventQueue SysMetric exactly as is done for other layers of the stack.

Measurement Scope

Recovery

- If the TCAP internal queue nears capacity, Alarm 19274 - TCAP stack event queue utilization will be raised with a severity corresponding to how near the queue utilization is to 100%. Refer to the *DSR Alarms and KPIs Reference* for details about this alarm.

3.87.5 TCAPStackQueuePeak

Measurement ID

9214

Measurement Group

Server TCAP Performance

Measurement Type

Minimum

Measurement Dimension

Single

Description

The peak percent utilization during the reporting interval of the MP server's TCAP internal queue used to receive messages from the SCCP layer. The number is expressed as a percentage of the maximum size.

Collection Interval

30 min

Peg Condition

This measurement is driven by the TCAPEventQueue SysMetric exactly as is done for other layers of the stack.

Measurement Scope

Recovery

- If the TCAP internal queue nears capacity, Alarm 19274 - TCAP stack event queue utilization will be raised with a severity corresponding to how near the queue utilization is to 100%. Refer to the *DSR Alarms and KPIs Reference* for details about this alarm.

3.87.6 TCAPDialogueTblAvg

Measurement ID

9215

Measurement Group

Server TCAP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average percent utilization during the reporting interval of the MP server's TCAP dialogue internal table used to maintain dialogue state. The number is expressed as a percentage of the maximum size.

Collection Interval

30 min

Peg Condition

This measurement is driven by the TCAPDialogueTable SysMetric exactly as is done for the event queues.

Measurement Scope

Network, NE, Server

Recovery

- If the TCAP dialogue internal table nears capacity, Alarm 19272 - TCAP active dialogue utilization will be raised with a severity corresponding to how near the queue utilization is to 100%. Refer to the *DSR Alarms and KPIs Reference* for details about this alarm.

3.87.7 TCAPDialogueTblPeak

Measurement ID

9216

Measurement Group

Server TCAP Performance

Measurement Type

Maximum

Measurement Dimension

Single

Description

The peak percent utilization during the reporting interval of the MP server's TCAP dialogue internal table used to maintain dialogue state. The number is expressed as a percentage of the maximum size.

Collection Interval

30 min

Peg Condition

This measurement is driven by the TCAPDialogueTable SysMetric exactly as is done for the event queues.

Measurement Scope

Network, NE, Server

Recovery

- If the TCAP dialogue internal table nears capacity, Alarm 19272 - TCAP active dialogue utilization will be raised with a severity corresponding to how near the queue utilization is to 100%. Refer to the *DSR Alarms and KPIs Reference* for details about this alarm.

3.87.8 TCAPComponentTblAvg

Measurement ID

9217

Measurement Group

Server TCAP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average percent utilization during the reporting interval of the MP server's TCAP component internal table used to maintain operation state. The number is expressed as a percentage of the maximum size.

Collection Interval

30 min

Peg Condition

This measurement is driven by the TCAP ComponentTable SysMetric exactly as is done for the event queues.

Measurement Scope

Network, NE, Server

Recovery

- If the TCAP component internal table nears capacity, Alarm 19273 - TCAP active operation utilization will be raised with a severity corresponding to how near the queue utilization is to 100%. Refer to the *DSR Alarms and KPIs Reference* for details about this alarm.

3.87.9 TCAPComponentTblPeak

Measurement ID

9218

Measurement Group

Server TCAP Performance

Measurement Type

Maximum

Measurement Dimension

Single

Description

The peak percent utilization during the reporting interval of the MP server's TCAP component internal table used to maintain operation state. The number is expressed as a percentage of the maximum size.

Collection Interval

30 min

Peg Condition

This measurement is driven by the TCAP ComponentTable SysMetric exactly as is done for the event queues.

Measurement Scope

Network, NE, Server

Recovery

- If the TCAP component internal table nears capacity, Alarm 19273 - TCAP active operation utilization will be raised with a severity corresponding to how near the queue utilization is to 100%. Refer to the *DSR Alarms and KPIs Reference* for details about this alarm.

3.88 SS7 Exception measurements

3.88.1 Ss7TxFailedCA

Measurement ID

9320

Measurement Group

SS7 Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of MAP response messages successfully transferred from SS7 TCAP layer to ComAgent layer

Collection Interval

30 min

Peg Condition

When TCAP layer successfully forwards message to Communication Agent

Measurement Scope

Network, NE, Server

Recovery

- Values in this measurement provide a measure of number of TCAP messages send failed to Communication Agent. Non-zero value for this measurement tag represents resource usage issues on the server. Check for any related additional Events or Alarms from the server.

3.88.2 Ss7TxMpUnkDiscard

Measurement ID

9321

Measurement Group

SS7 Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Unknown SS7 MP ID. Failed to transfer MAP response message. MP ID from origination transaction ID can not be mapped to any SS7 MP in topology.

Collection Interval

30 min

Peg Condition

When TCAP layer fails to find other XG SS7 MP information in database

Measurement Scope

Network, NE, Server

Recovery

- Values in this measurement provide a measure of number of TCAP messages discarded by TCAP layer when it is not able to find the XG SS7 MP information. Non-zero value for this measurement tag represents resource usage issues on the server. Check for any related additional Events or Alarms from the server.

3.89 SS7 Performance measurements

3.89.1 Ss7TxSuccCA

Measurement ID

9319

Measurement Group

SS7 Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of MAP response messages successfully transferred from SS7 TCAP layer to ComAgent layer

Collection Interval

30 min

Peg Condition

When TCAP layer successfully forwards message to Communication Agent

Measurement Scope

Network, NE, Server

Recovery

- Values in this measurement provides a measure of number of TCAP messages forwarded to Communication Agent for routing to other XG SS7 Stack.

3.90 Task Performance measurements

The Task Performance measurement report contains measurements that provide task level performance information related to ingress statistics.

3.90.1 TaskRxDrop

Measurement ID

18380

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message to a task which was not accepted by task due to its congestion.

Measurement Scope

Site

Recovery

- No action required.

3.90.2 TaskRxDropPOG

Measurement ID

18381

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 0 and color green discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message to a task which was not accepted by task due to congestion.

Measurement Scope

Site

Recovery

- No action required.

3.90.3 TaskRxDropPOY

Measurement ID

18397

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 0 and color yellow discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for the network element MPS for the time interval, based on request and answer messages.

Measurement Scope

Site

Recovery

- No action required.

3.90.4 TaskRxDropP1G

Measurement ID

18382

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 1 and color green discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message to a task which was not accepted by task due to congestion.

Measurement Scope

Site

Recovery

- No action required.

3.90.5 TaskRxDropP1Y

Measurement ID

18398

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 1 and color yellow discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for the network element MPS for the time interval, based on request and answer messages.

Measurement Scope

Site

Recovery

- No action required.

3.90.6 TaskRxDropP2G

Measurement ID

18383

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 2 and color green discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message to a task which was not accepted by task due to congestion.

Measurement Scope

Site

Recovery

- No action required.

3.90.7 TaskRxDropP2Y

Measurement ID

18399

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 2 and color yellow discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for the network element MPS for the time interval, based on request and answer messages.

Measurement Scope

Site

Recovery

- No action required.

3.90.8 TaskRxDropP3G

Measurement ID

18384

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 3 and color green discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message to a task which was not accepted by task due to congestion.

Measurement Scope

Site

Recovery

- No action required.

3.90.9 TaskRxDropP3Y

Measurement ID

18400

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 3 and color yellow discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for the network element MPS for the time interval, based on request and answer messages.

Measurement Scope

Site

Recovery

- No action required.

3.90.10 TaskRxDropP4G

Measurement ID

18385

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 4 and color green discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message to a task which was not accepted by task due to congestion.

Measurement Scope

Site

Recovery

- No action required.

3.90.11 TaskRxDropP4Y

Measurement ID

18401

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 4 and color yellow discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for the network element MPS for the time interval, based on request and answer messages.

Measurement Scope

Site

Recovery

- No action required.

3.90.12 TaskRxDropP5G

Measurement ID

18386

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 5 and color green discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message to a task which was not accepted by task due to congestion.

Measurement Scope

Site

Recovery

- No action required.

3.90.13 TaskRxDropP5Y

Measurement ID

18402

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 5 and color yellow discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for the network element MPS for the time interval, based on request and answer messages.

Measurement Scope

Site

Recovery

- No action required.

3.90.14 TaskRxDropP6G

Measurement ID

18387

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 6 and color green discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message to a task which was not accepted by task due to congestion.

Measurement Scope

Site

Recovery

- No action required.

3.90.15 TaskRxDropP6Y

Measurement ID

18403

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 6 and color yellow discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for the network element MPS for the time interval, based on request and answer messages.

Measurement Scope

Site

Recovery

- No action required.

3.90.16 TaskRxDropP7G

Measurement ID

18388

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 7 and color green discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message to a task which was not accepted by task due to congestion.

Measurement Scope

Site

Recovery

- No action required.

3.90.17 TaskRxDropP7Y

Measurement ID

18404

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 7 and color yellow discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for the network element MPS for the time interval, based on request and answer messages.

Measurement Scope

Site

Recovery

- No action required.

3.90.18 TaskRxDropP8G

Measurement ID

18389

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 8 and color green discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message to a task which was not accepted by task due to congestion.

Measurement Scope

Site

Recovery

- No action required.

3.90.19 TaskRxDropP8Y

Measurement ID

18405

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 8 and color yellow discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for the network element MPS for the time interval, based on request and answer messages.

Measurement Scope

Site

Recovery

- No action required.

3.90.20 TaskRxDropP9G

Measurement ID

18390

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 9 and color green discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message to a task which was not accepted by task due to congestion.

Measurement Scope

Site

Recovery

- No action required.

3.90.21 TaskRxDropP9Y

Measurement ID

18406

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 9 and color yellow discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for the network element MPS for the time interval, based on request and answer messages.

Measurement Scope

Site

Recovery

- No action required.

3.90.22 TaskRxDropP10G

Measurement ID

18391

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 10 and color green discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message to a task which was not accepted by task due to congestion.

Measurement Scope

Site

Recovery

- No action required.

3.90.23 TaskRxDropP10Y

Measurement ID

18407

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 10 and color yellow discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for the network element MPS for the time interval, based on request and answer messages.

Measurement Scope

Site

Recovery

- No action required.

3.90.24 TaskRxDropP11G

Measurement ID

18392

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 11 and color green discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message to a task which was not accepted by task due to congestion.

Measurement Scope

Site

Recovery

- No action required.

3.90.25 TaskRxDropP11Y

Measurement ID

18408

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 11 and color yellow discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for the network element MPS for the time interval, based on request and answer messages.

Measurement Scope

Site

Recovery

- No action required.

3.90.26 TaskRxDropP12G

Measurement ID

18393

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 12 and color green discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message to a task which was not accepted by task due to congestion.

Measurement Scope

Site

Recovery

- No action required.

3.90.27 TaskRxDropP12Y

Measurement ID

18409

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 12 and color yellow discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for the network element MPS for the time interval, based on request and answer messages.

Measurement Scope

Site

Recovery

- No action required.

3.90.28 TaskRxDropP13G

Measurement ID

18394

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 13 and color green discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message to a task which was not accepted by task due to congestion.

Measurement Scope

Site

Recovery

- No action required.

3.90.29 TaskRxDropP13Y

Measurement ID

18410

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 13 and color yellow discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for the network element MPS for the time interval, based on request and answer messages.

Measurement Scope

Site

Recovery

- No action required.

3.90.30 TaskRxDropP14G

Measurement ID

18395

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 14 and color green discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message to a task which was not accepted by task due to congestion.

Measurement Scope

Site

Recovery

- No action required.

3.90.31 TaskRxDropP14Y

Measurement ID

18411

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 14 and color yellow discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for the network element MPS for the time interval, based on request and answer messages.

Measurement Scope

Site

Recovery

- No action required.

3.90.32 TaskRxDropP15G

Measurement ID

18396

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 15 and color green discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for each ingress message to a task which was not accepted by task due to congestion.

Measurement Scope

Site

Recovery

- No action required.

3.90.33 TaskRxDropP15Y

Measurement ID

18412

Measurement Group

Task Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by <TaskName>

Description

The number of Task ingress messages of priority 15 and color yellow discarded or rejected due to congestion.

Collection Interval

5 min

Peg Condition

This measurement is pegged for the network element MPS for the time interval, based on request and answer messages.

Measurement Scope

Site

Recovery

- No action required.

3.91 Transport Exception measurements

The Transport Exception measurement group contains measurements that provide information about exceptions and unexpected events related to the Transport Manager.

3.91.1 RxTrFarEndClose

Measurement ID

9400

Measurement Group

Transport Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (per Transport)

Description

The number of times the far end closed the SCTP connection

Collection Interval

30 min

Peg Condition

Each time the far-end of the association closes the association by sending either SHUTDOWN or ABORT

Measurement Scope

NE, Server

Recovery

1. If the closing of the association was expected, no further action is necessary - the association will be recovered as soon as the far-end is ready to connect again.
2. If the closing of the association was not expected:
 - a. Transport status can be viewed at **Main Menu**, and then **Transport Manager**, and then **Maintenance**, and then **Transport**.
 - b. Look in the event history at **Main Menu**, and then **Alarms & Events**, and then **View History** Event 19404 - Far-end closed the Transport to determine exactly when the far-end closed the association.
 - c. Look for other events for the association or MP server in the event history.
 - d. Verify that IP connectivity still exists between the MP server and the SG.
 - e. Verify whether the far-end of the association is undergoing maintenance.

3.91.2 EvTrManClose

Measurement ID

9401

Measurement Group

Transport Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (per Transport)

Description

The number of times the Transport was manually closed. This includes manual changes of the transport administrative state that cause the transport to transition from APP-UP to Disabled.

Collection Interval

30 min

Peg Condition

Each time a manual change is made to the transport administrative state from Enabled to Blocked or from Enabled to Disabled, causing the transport to transition out of APP-UP protocol state.

**Note:**

This condition has a special meaning for SS7/M3UA where it is linked with ASP-UP.

Measurement Scope

NE, Server

Recovery

1. If the transport is known to be under maintenance, then no further action is necessary.
2. If the closing of the association was not expected:
 - a. Transport status can be viewed at **Main Menu**, and then **Transport Manager**, and then **Maintenance**, and then **Transport**.
 - b. Look in the event history at **Main Menu**, and then **Alarms & Events**, and then **View History** Event 19406 - Local Transport maintenance state change, which shows the manual transport state transitions and contains a time-stamp of when the change occurred.
 - c. The security logs at **Main Menu**, and then **Log Files**, and then **Security Logs History** can be searched using the time-stamp from the event history log to determine which login performed the manual state change on the association.
 - d. It is recommended to contact [#unique_131](#) for assistance if needed.

3.91.3 EvTrNoRespClose

Measurement ID

9402

Measurement Group

Transport Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (per Transport)

Description

The number of times the transport was closed due to lack of response from the far end, including lack of response to any signaling sent on the transport.

Collection Interval

30 min

Peg Condition

Each time an established Transport is closed by the MP server due to lack of response at the SCTP level from the far-end of the association.

Measurement Scope

NE, Server

Recovery

1. If all is well, this measurement should have a zero value. If non-zero, the association has been closed due to lack of response from the far-end. The MP server will begin periodic attempts to reconnect to the SG.
2. Otherwise:
 - a. Transport status can be viewed at **Main Menu**, and then **Transport Manager**, and then **Maintenance**, and then **Transport**.
 - b. Look in the event history at **Main Menu**, and then **Alarms & Events**, and then **View History** Event 19405 - Transport closed due to a lack of response (refer to the *DSR Alarms and KPIs Reference* for details about this event).
 - c. Verify IP connectivity between the MP server and the SG.
 - d. Determine if the far-end of the association is congested, possibly causing slow response times on the association.
 - e. Check the IP network between the MP server and the SG for excessive retransmissions.
 - f. It is recommended to contact [#unique_131](#) for assistance if needed.

3.91.4 EvTrCnxFail

Measurement ID

9404

Measurement Group

Transport Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (per Transport)

Description

- The number of times the SCTP connection attempt failed on the transport. This includes only unsuccessful attempts to connect/accept SCTP connections. It does not include failure of established connections.

- The number of times open attempt on UDP socket in Listen Mode failed on the Transport.

Collection Interval

30 min

Peg Condition

- Each time an SCTP connect attempt fails
- Each time an UDP open attempt in Listen mode fails
- Each time an SCTP open attempt in Listen mode fails

Measurement Scope

NE, Server

Recovery

1. If all is well, this measurement should have a zero value. A non-zero value indicates that the MP server has attempted to connect to the Peer IP Address at least once and failed to establish the SCTP connection.
2. Otherwise:
 - a. Transport status can be viewed at **Main Menu**, and then **Transport Manager**, and then **Maintenance**, and then **Transport**.
 - b. Look in the event history at **Main Menu**, and then **Alarms & Events**, and then **View History** Event 19402 - Failed to connect Transport, which provides more details as to the actual cause of the failure.
 - c. Verify that the Adjacent Node that represents the far-end of the association is configured with the correct IP address at **Main Menu**, and then **Transport Manager**, and then **Configuration**, and then **Adjacent Node**.
 - d. Verify that the remote port configured at **Main Menu**, and then **Transport Manager**, and then **Configuration**, and then **Transport** for the association correctly identifies the port that the Adjacent Node is listening on for SCTP connections.
 - e. Verify the IP network connectivity between the MP server and the Adjacent Node.
 - f. If the SG must be configured to connect to the MP server's IP address and port, verify that the SG configuration matches the association configuration at **Main Menu**, and then **Transport Manager**, and then **Configuration**, and then **Transport**.
 - g. It is recommended to contact [#unique_131](#) for assistance if needed.

3.91.5 TxTrSendFail

Measurement ID

9405

Measurement Group

Transport Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (per Transport)

Description

The number of times the SCTP/UDP send failed for signaling on the transport. This includes sending of any messages on an established transport or UDP socket.

Collection Interval

30 min

Peg Condition

Each time an attempt to send signaling DATA fails for any reason and the information being sent cannot be mapped to a specific transport

Measurement Scope

NE, Server

Recovery

1. If all is well, this measurement should have a zero value. A non-zero value indicates that an attempt to send a message to the far-end on this Transport has failed. Normally this happens if the far-end cannot keep up with the rate of messages being sent from all links on the association.
2. Otherwise:
 - a. Transport status can be viewed at **Main Menu**, and then **Transport Manager**, and then **Maintenance**, and then **Transport**.
 - b. Look in the event history at **Main Menu**, and then **Alarms & Events**, and then **View History** Event 19407 - Failed to send Transport DATA Message, which gives more information about exactly what caused the failure to send.
 - c. Verify that the IP network between the MP server and the Adjacent Node is functioning as expected.
 - d. It is recommended to contact [#unique_131](#) for assistance if needed.

3.91.6 RxTrRecvFailed

Measurement ID

9406

Measurement Group

Transport Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (per Transport)

Description

The number of times an SCTP/UDP receive attempt failed on the transport. Failure to receive message via SCTP may result in a message being discarded

Collection Interval

30 min

Peg Condition

Each time an SCTP receive fails when the far-end attempted to send data, but the data cannot be received due to an invalid message length

Measurement Scope

NE, Server

Recovery

1. If all is well, this measurement should have a zero value. A non-zero value indicates that the far-end is sending data that is malformed.
2. Otherwise:
 - a. Transport status can be viewed at **Main Menu**, and then **Transport Manager**, and then **Maintenance**, and then **Transport**.
 - b. Look in the event history at **Main Menu**, and then **Alarms & Events**, and then **View History** Event 19403 - received malformed SCTP message (invalid length), which gives more information about exactly what caused the failure.
 - c. Try to bring the sockets back into alignment by manually Disabling and Enabling the Transport.
 - d. It is recommended to contact [#unique_131](#) for assistance if needed.

3.91.7 EvTrSockInitFail

Measurement ID

9407

Measurement Group

Transport Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (per Transport)

Description

The number of times the socket initialization failed.

Collection Interval

30 min

Peg Condition

Each time one or more socket options cannot be set according to the settings in the transport's configuration set

Measurement Scope

NE, Server

Recovery

1. If all is well, this measurement should have a zero value. A non-zero value indicates some problem with association setup prior to attempting to connect the association.

2. If this issue occurs, look in **Main Menu**, and then **Alarms & Events**, and then **View History** for Event 19401 - Failed to configure Transport, which provides details about exactly what part of the configuration failed.
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.91.8 TmSingleTransQueueFull

Measurement ID

9415

Measurement Group

Transport Exception

Measurement Type

Simple

Measurement Dimension

Arrayed (per Transport)

Description

The number of egress messages that were discarded because the single Transport Writer Queue was full.

Collection Interval

30 min

Peg Condition

Check whether the single peers transmit data queue limit has reached its max limit (1000). If max limit is reached or exceeded then peg the measurement and discard the low priority events.

Measurement Scope

NE, Server

Recovery

1. This measurements indicates that the Transport is backed up and there could be messages that will get discarded. If it's above the defined critical threshold, it results in generating Alarm 19408 - Single Transport Egress-Queue Utilization (refer to the *DSR Alarms and KPIs Reference* for details about this alarm).
2. The percent utilization of the MP's Transport Writer Queue is approaching its maximum capacity. If this problem persists and the queue reaches 100% utilization, all new egress messages from the Transport will be discarded.

This alarm should not normally occur when no other congestion alarms are asserted. This may occur for a variety of reasons:

- a. An IP network or Adjacent node problem may exist preventing SCTP from transmitting messages into the network at the same pace that messages are being received from the network.
- b. The SCTP Association Writer process may be experiencing a problem preventing it from processing events from its event queue. The alarm log should be examined from **Main Menu**, and then **Alarms & Events**.
- c. If one or more MPs in a server site have failed, the traffic will be distributed amongst the remaining MPs in the server site. MP server status can be

monitored from **Main Menu**, and then **Status & Control**, and then **Server Status**.

- d. The mis-configuration of Adjacent Node IP routing may result in too much traffic being distributed to the MP. Each MP in the server site should be receiving approximately the same ingress transaction per second.
 - e. There may be an insufficient number of MPs configured to handle the network traffic load. The ingress traffic rate of each MP can be monitored from **Main Menu**, and then **Status & Control**, and then **KPI Display**. If all MPs are in a congestion state then the offered load to the server site is exceeding its capacity.
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.91.9 EvSctpAdjPToDwn

Measurement ID

9424

Measurement Group

Transport Exception

Measurement Type

Max

Measurement Dimension

Arrayed (per Transport)

Description

The number of times a configured IP Address of an Adjacent Node goes from Available to Unavailable.

Collection Interval

30 min

Peg Condition

Each time reachability to a configured IP address of an Adjacent Node is lost, indicating a fault in the path to that address was detected.

Measurement Scope

NE, Server

Recovery

1. If all is well, this measurement should have a zero value. A non-zero value indicates a path fault to that address was detected.
2. Otherwise:
 - a. Check the event history log at **Main Menu**, and then **Alarms & Events**, and then **View History**, looking for Event 19409 - Message Rejected by ACL Filtering which provide more details as to the actual cause of the failure.
 - b. Verify the Adjacent Node that represents the far-end of the association is configured with the correct address at **Main Menu**, and then **Transport Manager**, and then **Configuration**, and then **Adjacent Node**.
 - c. Verify the IP network connectivity between the MP server and the Adjacent Node's IP address using a ping or traceroute command
3. It is recommended to contact [#unique_131](#) for assistance if needed.

3.91.10 EvSctpTransRej

Measurement ID

9425

Measurement Group

Transport Exception

Measurement Type

Max

Measurement Dimension

Arrayed (per Transport)

Description

The number of times SCTP Transport has been rejected due to remote IP addresses validation failure based on SCTP Multihoming mode. This is valid only for SCTP Transports.

Collection Interval

30 min

Peg Condition

Each time the association has been rejected due to IP address validation failure in the SCTP INITs/INIT-ACKs transmitted by the Adjacent Node.

Measurement Scope

NE, Server

Recovery

- 1.
2. If all is well, this measurement should have a zero value. A non-zero value indicates that the Adjacent Node has attempted to connect to the Peer IP Address at least once and but the connection attempt was rejected because the IP addresses advertised by the Adjacent Node failed validation.
3. Otherwise:
 - a. Transport status can be viewed at **Main Menu**, and then **Transport Manager**, and then **Maintenance**, and then **Transport**.
 - b. Check the event history log at **Main Menu**, and then **Alarms & Events**, and then **View History**, looking for Events 19411 - SCTP Transport closed due to failure of multihoming validation or 19412 - SCTP Transport Transport Configuration Mismatch which provide more details as to the actual cause of the failure.
 - c. Verify that the SCTP validation mode is as desired.
 - d. Verify that the Adjacent Node that represents the far-end of the association is configured with the correct address at **Main Menu**, and then **Transport Manager**, and then **Configuration**, and then **Adjacent Node**.
 - e. Verify that the remote port configured at **Main Menu**, and then **Transport Manager**, and then **Configuration**, and then **Transport** for the association correctly identifies the port that the Adjacent node is listening on for SCTOP connections.

- f. It is recommended to contact [#unique_131](#) for assistance if needed.

3.92 Transport Usage measurements

The Transport Usage measurement group contains measurements that provide information about the usage of the Transport Manager.

3.92.1 EvTrCnxSuccess

Measurement ID

9403

Measurement Group

Transport Usage

Measurement Type

Simple

Measurement Dimension

Arrayed (per Transport)

Description

- The number of times the SCTP connection was successfully established on the transport.
- The number of times the UDP socket in Listen Mode was opened successfully on the transport.

Collection Interval

30 min

Peg Condition

- Each time the SCTP association reaches the APP-UP protocol state (i.e. the connection is successfully ESTABLISHED)
- Each time the UDP socket in Listen Mode was opened successfully

Measurement Scope

NE, Server

Recovery

1. If the association is expected to have connected during the measurement reporting interval, no action is necessary.
2. Otherwise:
 - a. Transport status can be viewed at **Main Menu**, and then **Transport Manager**, and then **Maintenance**, and then **Transport**.
 - b. Look in the event history at **Main Menu**, and then **Alarms & Events**, and then **View History** events related to the association or the MP server to determine what may have caused the Transport to fail.
 - c. It is recommended to contact [#unique_131](#) for assistance if needed.

3.92.2 TmTrEnaNotUp

Measurement ID

9410

Measurement Group

Transport Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (per Transport)

Description

The number of seconds during the reporting interval during which the transport was in the Enabled administrative state but was not in APP-UP protocol state. When the transport is Enabled, the desired protocol state is APP-UP. This measurement indicates the amount of time during the reporting interval for which the association was not in the desired protocol state.

Collection Interval

30 min

Peg Condition

Time shall be accumulated for this measurement during the collection interval when all of the following are true:

- the association is in the ENABLED administrative state
- the association is not in the ASP-UP protocol state for M3UA and APP-UP for other Plugins

Measurement Scope

NE, Server

Recovery

1. If all is well, this measurement should have a zero value. A non-zero value indicates that the MP server has attempted to connect to the Peer IP Address at least once and failed to establish the SCTP connection.
2. Otherwise:
 - a. Association status can be viewed at **Main Menu**, and then **Transport Manager**, and then **Maintenance**, and then **Transport**.
 - b. Verify that the Adjacent server that represents the far-end of the association is configured with the correct IP address at **Main Menu**, and then **Transport Manager**, and then **Configuration**, and then **Adjacent Node**.
 - c. Verify that the remote port configured at **Main Menu**, and then **Transport Manager**, and then **Configuration**, and then **Transport** for the association correctly identifies the port that the SG is listening on for SCTP connections.
 - d. Verify the IP network connectivity between the MP server and the SG.
 - e. If the Adjacent Node must be configured to connect to the MP server's IP address and port, verify that the Adjacent Node configuration matches the

association configuration at **Main Menu**, and then **Transport Manager**, and then **Maintenance**, and then **Transport**.

- f. It is recommended to contact [#unique_131](#) for assistance if needed.

3.92.3 RxTmSctpBufAvg

Measurement ID

9411

Measurement Group

Transport Usage

Measurement Type

Average

Measurement Dimension

Arrayed (per Transport)

Description

The Average Value of the number of bytes in SCTP RX Window

Collection Interval

5 min

Peg Condition

Every Second, retrieve the Rx socket buffer occupancy by using the "getsockopt" functions and then calculates and peg the Average buffer occupancy, during the last 5 min window. To calculate the current RX Buffer Occupancy, we subtract the number of unused bytes in the buffer from the initial default RX buffer size set during setsockopt at the time of socket creation.

Measurement Scope

NE, Server

Recovery

- No action required. This is debug statistical information retrieved from getsockopt (SO_RCVBUF) interface.

3.92.4 RxTmSctpBufPeak

Measurement ID

9412

Measurement Group

Transport Usage

Measurement Type

Max

Measurement Dimension

Arrayed (per Transport)

Description

The Peak Value of the number of bytes in SCTP RX Window

Collection Interval

5 min

Peg Condition

Every Second, retrieve the Rx socket buffer occupancy by using the "getsockopt" functions and then calculates and peg the Maximum buffer occupancy during the last 5 min window. To calculate the current RX Buffer Occupancy, we subtract the number of unused bytes in the buffer from the initial default RX buffer size set during setsockopt at the time of socket creation.

Measurement Scope

Recovery

- No action required. This is debug statistical information retrieved from getsockopt (SO_RCVBUF) interface.

3.93 Transport Performance measurements

The Transport Performance measurement group contains measurements that provide information about performance related measurements for the Transport Manager.

3.93.1 TxTrOctets

Measurement ID

9408

Measurement Group

Transport Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Transport)

Description

The number of octets sent on the SCTP/UDP Transport. It does not include SCTP, UDP, IP, or Ethernet headers

Collection Interval

30 min

Peg Condition

Each time a DATA/non-DATA message is successfully sent on the transport (incremented by the number of octets in the message)

Measurement Scope

NE, Server

Recovery

- No action required. This measurement indicates the level of signaling octets that have been sent over the association during the reporting interval.

3.93.2 RxTrOctets

Measurement ID

9409

Measurement Group

Transport Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Transport)

Description

The number of octets sent on the SCTP/UDP Transport. It does not include SCTP, UDP, IP, or Ethernet headers

Collection Interval

30 min

Peg Condition

Each time a DATA/non-DATA message is successfully received on the transport (incremented by the number of octets in the message)

Measurement Scope

NE, Server

Recovery

- No action required. This measurement indicates the level of signaling octets that have been sent over the association during the reporting interval.

3.93.3 TmSingleTransQueuePeak

Measurement ID

9413

Measurement Group

Transport Performance

Measurement Type

Max

Measurement Dimension

Arrayed (by Transport)

Description

The peak single Transport Writer Queue utilization (0-100%) measured during the collection interval (averaged over 2 sec)

Collection Interval

5 min

Peg Condition

Transport's Queue is registered as a Stack Resource, StackResourceManager thread monitors and updates the maximum Transport Queue utilization sample taken during the collection interval for affected Transport

Measurement Scope

NE, Server

Recovery

1. Transport single queue utilization depicts the SCTP or UDP Transport Writer Queues utilization. This is a measure of how fast the Transport queue is being processed. It indicates the maximum depth of queue over the monitored interval. It is primarily intended to assist in evaluating the needed for additional MP processing capacity at a Network Element.
2. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an MP over several collection intervals, then the number of MPs in the Network Element may need to be increased.
3. If the peak and average for an individual MP is significantly different than other MPs in the same Network Element then an MP-specific hardware, software, or configuration problem may exist.
4. The percent utilization of the MP's Transport Writer Queue is approaching its maximum capacity. If this problem persists and the queue reaches 100% utilization, all new egress messages from the Transport will be discarded.
 - a. An IP network or Adjacent node problem may exist preventing SCTP from transmitting messages into the network at the same pace that messages are being received from the network.
 - b. The SCTP Association Writer process may be experiencing a problem preventing it from processing events from its event queue. The alarm log should be examined from **Main Menu**, and then **Alarms & Events**.
 - c. If one or more MPs in a server site have failed, the traffic will be distributed amongst the remaining Mps in the server site. MP server status can be monitored from **Main Menu**, and then **Status & Control**, and then **Server Status**.
 - d. The mis-configuration of Adjacent Node IP routing may result in too much traffic being distributed to the MP. Each MP in the server site should be receiving approximately the same ingress transaction per second.
 - e. There may be an insufficient number of MPs configured to handle the network traffic load. The ingress traffic rate of each MP can be monitored from **Main Menu**, and then **Status & Control**, and then **KPI Display**. If all MPs are in a congestion state then the offered load to the server site is exceeding its capacity.
5. It is recommended to contact [#unique_131](#) for assistance if needed.

3.93.4 TmSingleTransQueueAvg

Measurement ID

9414

Measurement Group

Transport Performance

Measurement Type

Average

Measurement Dimension

Arrayed (by Transport)

Description

The average single Transport (SCTP/UDP) Writer Queue utilization (0-100%) measured during the collection interval (averaged over 2 sec)

Collection Interval

5 min

Peg Condition

Transport's Queue is registered as a Stack Resource, StackResourceManager thread monitors and updates the metric Average value for affected Transport

Measurement Scope

NE, Server

Recovery

1. This is a measure of how fast the Transport queue is being processed. It indicates the Average depth of queue over the monitored interval. It is primarily intended to assist in evaluating the need for additional MP processing capacity at a Network Element.
2. If both the peak and average measurement for multiple MPs within a Network Element are consistently near the recommended maximum engineered capacity of an MP over several collection intervals, then the number of MPs in the Network Element may need to be increased
3. If the peak and average for an individual MP are significantly different than other MPs in the same Network Element, then an MP-specific hardware, software, or configuration problem may exist
4. It is recommended to contact [#unique_131](#) for assistance if needed.

3.93.5 SctpTransPeerCWNDPeak

Measurement ID

9416

Measurement Group

Transport Performance

Measurement Type

Max

Measurement Dimension

Arrayed (per Transport)

Description

The peak value of congestion window size recorded for the peer of a SCTP transport during the collection interval

Collection Interval

30 min

Peg Condition

This Metric is registered as a Stack Resource, StackResourceManager thread monitors and updates the metric Peak value for affected Transport. SCTP status information will be retrieved from socket option "SCTP_STATUS" through sctp_opt_info API.

Measurement Scope

NE, Server

Recovery

- This is debug information, which is retrieved from sctp socket option (SCTP_STATUS), It indicates Peak of congestion window recorded for the peer address.

3.93.6 SctpTransPeerCWNDAvg

Measurement ID

9417

Measurement Group

Transport Exception

Measurement Type

Average

Measurement Dimension

Arrayed (per Transport)

Description

The average of congestion window size recorded for the peer of a SCTP transport during the collection interval.

Collection Interval

30 min

Peg Condition

This Metric is registered as a Stack Resource, StackResourceManager thread monitors and updates the metric Average value for affected Transport. SCTP status information will be retrieved from socket option "SCTP_STATUS" through sctp_opt_info API.

Measurement Scope

Recovery

- This is debug information, which is retrieved from sctp socket option (SCTP_STATUS); It indicates Average of congestion window recorded for the peer address.

3.93.7 SctpTransPeerSRTTPeak

Measurement ID

9418

Measurement Group

Transport Performance

Measurement Type

Max

Measurement Dimension

Arrayed (per Transport)

Description

The peak value of smoothed round trip time for the SCTP Transport address during the collection interval

Collection Interval

30 min

Peg Condition

This Metric is registered as a Stack Resource, StackResourceManager thread monitors and updates the metric Peak value for affected Transport. SCTP status information will be retrieved from socket option "SCTP_STATUS" through sctp_opt_info API.

Measurement Scope

NE, Server

Recovery

- This is debug information, which is retrieved from sctp socket option (SCTP_STATUS).

3.93.8 SctpTransPeerSRTTAvg

Measurement ID

9419

Measurement Group

Transport Performance

Measurement Type

Average

Measurement Dimension

Arrayed (per Transport)

Description

The average value of smoothed round trip time for the SCTP Transport address during the collection interval.

Collection Interval

30 min

Peg Condition

This Metric is registered as a Stack Resource, StackResourceManager thread monitors and updates the metric Peak value for affected Transport. Sctp status information will be retrieved from socket option "SCTP_STATUS" through sctp_opt_info API.

Measurement Scope

NE, Server

Recovery

- This is debug information, which is retrieved from sctp socket option (SCTP_STATUS).

3.93.9 SctpTransUnAckedDataPeak

Measurement ID

9420

Measurement Group

Transport Performance

Measurement Type

Max

Measurement Dimension

Arrayed (per Transport)

Description

The peak number of unacknowledged DATA chunks pending for the peer of a Sctp Transport address during the collection interval.

Collection Interval

30 min

Peg Condition

This Metric is registered as a Stack Resource, StackResourceManager thread monitors and updates the metric Peak value for affected Transport. Sctp status information will be retrieved from socket option "SCTP_STATUS" through sctp_opt_info API.

Measurement Scope

NE, Server

Recovery

- This is debug information, which is retrieved from sctp socket option (SCTP_STATUS).

3.93.10 SctpTransUnAckedDataAvg

Measurement ID

9421

Measurement Group

Transport Performance

Measurement Type

Average

Measurement Dimension

Arrayed (per Transport)

Description

The average number of unacknowledged DATA chunks pending for the peer of a SCTP Transport address during the collection interval

Collection Interval

30 min

Peg Condition

This Metric is registered as a Stack Resource, StackResourceManager thread monitors and updates the metric Average value for affected Transport. Sctp status information will be retrieved from socket option "SCTP_STATUS" through sctp_opt_info API

Measurement Scope

NE, Server

Recovery

- This is debug information, which is retrieved from sctp socket option (SCTP_STATUS).

3.93.11 SctpTransRTOPeak

Measurement ID

9422

Measurement Group

Transport Performance

Measurement Type

Average

Measurement Dimension

Arrayed (per Transport)

Description

The average value of retransmission timeout in use for the Sctp Transport address

Collection Interval

30

Peg Condition

This Metric is registered as a Stack Resource, StackResourceManager thread monitors and updates the metric Average value for affected Transport. Sctp status information will be retrieved from socket option "SCTP_STATUS" through sctp_opt_info API

Measurement Scope

NE, Server

Recovery

- This is debug information, which is retrieved from sctp socket option (SCTP_STATUS).

3.93.12 SctpTransRTOAvg

Measurement ID

9423

Measurement Group

Transport Performance

Measurement Type

Average

Measurement Dimension

Arrayed (per Transport)

Description

The average value of retransmission timeout in use for the Sctp Transport address

Collection Interval

30 min

Peg Condition

This Metric is registered as a Stack Resource, StackResourceManager thread monitors and updates the metric Average value for affected Transport. Sctp status information will be retrieved from socket option "SCTP_STATUS" through sctp_opt_info API

Measurement Scope

NE, Server

Recovery

- This is debug information, which is retrieved from sctp socket option (SCTP_STATUS).

3.94 Topology Hiding Performance measurements

The Topology Hiding Performance measurement report contains measurements providing information on the number of messages that the various topology hiding methods were applied.

3.94.1 TxPathTopology

Measurement ID

14020

Measurement Group

Topology Hiding Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

Number of messages given path topology hiding treatment on messages routed to an Untrusted Network

Collection Interval

5 min

Peg Condition

Each time Path TH treatment is applied to either a Request or Answer message at TH trigger points RTH and ATH respectively

Measurement Scope

Site

Recovery

- No action required.

3.94.2 RxPathTopology

Measurement ID

14021

Measurement Group

Topology Hiding Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

Number of messages given path topology hiding treatment on messages received from an Untrusted Network

Collection Interval

5 min

Peg Condition

Each time Path TH treatment is applied to either a Request or Answer message at TH trigger points RTR and ATR respectively

Measurement Scope

Site

Recovery

- No action required.

3.94.3 EvHssTopology

Measurement ID

14022

Measurement Group

Topology Hiding Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

Number of messages given S6a/S6d HSS topology hiding treatment

Collection Interval

5 min

Peg Condition

Each time S6a/S6d HSS TH treatment is applied to either a Request or Answer message at TH trigger points RTH, RTR, ATH, and ATR

 **Note:**

If S6a/S6d HSS TH treatment is applied to more than one AVP in a message, the counter is only incremented once

Measurement Scope

Site

Recovery

- No action required.

3.94.4 EvMmeTopology

Measurement ID

14023

Measurement Group

Topology Hiding Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

Number of messages given MME/SGSN topology hiding treatment

Collection Interval

5 min

Peg Condition

Each time MME/SGSN TH treatment is applied to either a Request or Answer message at TH trigger points RTH, RTR, ATH, and ATR



Note:

If MME/SGSN TH treatment is applied to more than one AVP in a message, the counter is only incremented once

Measurement Scope

Site

Recovery

- No action required.

3.94.5 EvMmeTopologyException

Measurement ID

14029

Measurement Group

Topology Hiding Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of messages given exception treatment while applying MME/SGSN topology hiding treatment

Collection Interval

5 min

Peg Condition

When MME/SGSN TH exception treatment is applied to either a Request or Answer message at TH trigger points RTH and ATH

Measurement Scope

Site

Recovery

- Ensure that all MME/SGSN hostnames to be hidden are present in the MME/SGSN Configuration Set

3.94.6 EvHssTopologyException

Measurement ID

14031

Measurement Group

Topology Hiding Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of messages given exception treatment while applying S6a/S6d HSS topology hiding treatment

Collection Interval

5 min

Peg Condition

When S6a/S6d HSS TH exception treatment is applied to a Request message at TH trigger point RTH

Measurement Scope

Site

Recovery

- Check the HSS Vendor and request the vendor to be RFC 6733 Compliant

3.94.7 EvPcrfTopology

Measurement ID

14034

Measurement Group

Topology Hiding Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of messages given S9 PCRF topology hiding treatment

Collection Interval

5 min

Peg Condition

When S9 PCRF TH treatment is applied to either a Request or Answer message TH trigger points RTH, RTR, ATH, and ATR

Measurement Scope

Site

Recovery

- No action required.

3.94.8 EvPcrfTopologyMp

Measurement ID

14035

Measurement Group

Topology Hiding Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of messages given S9 PCRF topology hiding treatment

Collection Interval

5 min

Peg Condition

When S9 PCRF TH treatment is applied to either a Request or Answer message TH trigger points RTH, RTR, ATH, and ATR

Measurement Scope

Site

Recovery

- No action required.

3.94.9 EvPcrfTopologyExceptionMp

Measurement ID

14036

Measurement Group

Topology Hiding Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of messages given exception treatment while applying S9 PCRF topology hiding treatment

Collection Interval

5 min

Peg Condition

When S9 PCRF TH treatment is applied to either a Request or Answer message at RTH, RTR, or ATH trigger points and "PCRF Actual Name Not Found" Action is invoked

Measurement Scope

Site

Recovery

1. Check with the PCRF Vendor and request them to be RFC 6733 Compliant if the format of the Session-ID AVP is not RFC 6733 compliant.
2. Check the configuration of TH Host Names and ensure that all PCRF host names to hidden are present in the S9 PCRF TH Configuration Set

3.94.10 EvPcrfTopologyException

Measurement ID

14037

Measurement Group

Topology Hiding Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of messages given exception treatment while applying S9 PCRF topology hiding treatment

Collection Interval

5 min

Peg Condition

When S9 PCRF TH treatment is applied to either a Request or Answer message at RTH, RTR, or ATH trigger points and "PCRF Actual Name Not Found" Action is invoked

Measurement Scope

Site

Recovery

1. Check with the PCRF Vendor and request them to be RFC 6733 Compliant if the format of the Session-ID AVP is not RFC 6733 compliant.
2. Check the configuration of TH Host Names and ensure that all PCRF host names to hidden are present in the S9 PCRF TH Configuration Set

3.94.11 EvAfTopology

Measurement ID

14038

Measurement Group

Topology Hiding Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Diameter Connection ID)

Description

The number of messages given S9 AF/pCSCF topology hiding treatment

Collection Interval

5 min

Peg Condition

When S9 AF/pCSCF TH treatment is applied to either a Request or Answer message at TH trigger points RTH, RTR, ATH, and ATR



Note:

If S9 AF/pCSCF TH treatment is applied to more than one AVP in a message, the counter is only incremented once

Measurement Scope

Site

Recovery

- No action required.

3.94.12 EvAfTopologyMp

Measurement ID

14039

Measurement Group

Topology Hiding Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of messages given S9 AF/pCSCF topology hiding treatment

Collection Interval

5 min

Peg Condition

When S9 AF/pCSCF TH treatment is applied to either a Request or Answer message at TH trigger points RTH, RTR, ATH, and ATR

**Note:**

If S9 AF/pCSCF TH treatment is applied to more than one AVP in a message, the counter is only incremented once

Measurement Scope

Site

Recovery

- No action required.

3.94.13 EvAfTopologyExceptionMp

Measurement ID

14040

Measurement Group

Topology Hiding Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of messages given exception treatment while applying S9 AF/pCSCF topology hiding treatment

Collection Interval

5 min

Peg Condition

When S9 AF/pCSCF TH treatment is applied to either a Request or Answer message at TH trigger points RTH, RTR, or ATH and "AF/pCSCF Actual Name Not Found" Action is invoked

Measurement Scope

Site

Recovery

- No action required.

3.94.14 EvAfTopologyException

Measurement ID

14041

Measurement Group

Topology Hiding Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of messages given exception treatment while applying S9 AF/pCSCF topology hiding treatment

Collection Interval

5 min

Peg Condition

When S9 AF/pCSCF TH treatment is applied to either a Request or Answer message at TH trigger points RTH, RTR, or ATH and "AF/pCSCF Actual Name Not Found" Action is invoked

Measurement Scope

Site

Recovery

- No action required.

3.94.15 TxPathTopologyMp

Measurement ID

14024

Measurement Group

Topology Hiding Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of messages given path topology hiding treatment on messages routed to an Untrusted Network

Collection Interval

5 min

Peg Condition

Each time Path TH treatment is applied to either a Request or Answer message at TH trigger points RTH and ATH respectively

Measurement Scope

Site

Recovery

- No action required.

3.94.16 RxPathTopologyMp

Measurement ID

14025

Measurement Group

Topology Hiding Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of messages given path topology hiding treatment on messages routed from an Untrusted Network

Collection Interval

5 min

Peg Condition

Each time Path TH treatment is applied to either a Request or Answer message at TH trigger points RTH and ATH respectively

Measurement Scope

Site

Recovery

- No action required.

3.94.17 EvHssTopologyMp

Measurement ID

14026

Measurement Group

Topology Hiding Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by Connection ID)

Description

The number of messages given S6a/S6d HSS topology hiding treatment

Collection Interval

5 min

Peg Condition

Each time S6a/S6d HSS TH treatment is applied to either a Request or Answer message a TH trigger points RTH, RTR, ATH, and ATR

**Note:**

If S6a/S6d HSS TH treatment is applied to more than one AVP in a message, the counter is only incremented once

Measurement Scope

Site

Recovery

- No action required.

3.94.18 EvMmeTopologyMp

Measurement ID

14027

Measurement Group

Topology Hiding Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of messages given MME/SGSN topology hiding treatment

Collection Interval

5 min

Peg Condition

Each time MME/SGSN TH treatment is applied to either a Request or Answer message a TH trigger points RTH, RTR, ATH, and ATR

**Note:**

If MME/SGSN TH treatment is applied to more than one AVP in a message, the counter is only incremented once

Measurement Scope

Site

Recovery

- No action required.

3.94.19 EvMmeTopologyExceptionMp

Measurement ID

14028

Measurement Group

Topology Hiding Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of messages given exception treatment while applying MME/SGSN topology hiding treatment

Collection Interval

5 min

Peg Condition

Each time MME/SGSN TH treatment is applied to either a Request or Answer message a TH trigger points RTH and ATH trigger points

Measurement Scope

Site

Recovery

- Ensure that all MME/SGSN hostnames to be hidden are present in the MME/SGSN Configuration Set

3.94.20 EvHssTopologyExceptionMp

Measurement ID

14030

Measurement Group

Topology Hiding Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of messages given exception treatment while applying S6a/S6d HSS topology hiding treatment

Collection Interval

5 min

Peg Condition

When S6a/S6d HSS TH exception treatment is applied to Request at RTH trigger point

Measurement Scope

Site

Recovery

- Check with the HSS Vendor and request the vendor to be RFC 6733 Compliant.

3.95 Traffic Throttle Group Performance measurements

The Traffic Throttle Group (TTG) performance measurement report contains measurements that provide performance information that is specific to each local TTG.

3.95.1 TtgMaxLossExceeded

Measurement ID

14349

Measurement Group

Traffic Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTG ID)

Description

The number of request messages that were not routed to the TTG because the maximum loss rate for the Route Group in the Route List was exceeded.

Collection Interval

5 min

Peg Condition

This measurement is updated when a Route Group is selected from a Route List and these criteria are met:

- TTG is assigned to the Route Group within the Route List
- TTG is owned by the local DSR Node
- Request message's Application-Id matches the Application-Id assigned to the local TTG
- TTG's Admin State = Enabled
- TTG's Current Loss Percent is greater than the TTG Max Loss Percent Threshold attribute value assigned to the Route Group within the Route List

Measurement Scope

Site

Recovery

- No action required.

3.95.2 TtgSelectedP0

Measurement ID

14344

Measurement Group

Traffic Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTG ID)

Description

The number of messages routed to the TTG with message priority 0.

Collection Interval

5 min

Peg Condition

This measurement is updated when a Route Group is selected from a Route List and these criteria are met:

- TTG is assigned to the Route Group within the Route List
- TTG is owned by the local DSR Node
- Request message's Application-Id matches the Application-Id assigned to the local TTG
- TTG's Admin State = Enabled

- TTG's Current Loss Percent is less than or equal to the TTG Max Loss Percent Threshold attribute value assigned to the Route Group within the Route List
- Message Priority = 0

Measurement Scope

Site

Recovery

- No action required.

3.95.3 TtgSelectedP1

Measurement ID

14345

Measurement Group

Traffic Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTG ID)

Description

The number of messages routed to the TTG with message priority 1.

Collection Interval

5 min

Peg Condition

This measurement is updated when a Route Group is selected from a Route List and these criteria are met:

- TTG is assigned to the Route Group within the Route List
- TTG is owned by the local DSR Node
- Request message's Application-Id matches the Application-Id assigned to the local TTG
- TTG's Admin State = Enabled
- TTG's Current Loss Percent is less than or equal to the TTG Max Loss Percent Threshold attribute value assigned to the Route Group within the Route List
- Message Priority = 1

Measurement Scope

Site

Recovery

- No action required.

3.95.4 TtgSelectedP2

Measurement ID

14346

Measurement Group

TTG Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTG ID)

Description

The number of messages routed to the TTG with message priority 2.

Collection Interval

5 min

Peg Condition

This measurement is updated when a Route Group is selected from a Route List and these criteria are met:

- TTG is assigned to the Route Group within the Route List
- TTG is owned by the local DSR Node
- Request message's Application-Id matches the Application-Id assigned to the local TTG
- TTG's Admin State = Enabled
- TTG's Current Loss Percent is less than or equal to the TTG Max Loss Percent Threshold attribute value assigned to the Route Group within the Route List
- Message Priority = 2

Measurement Scope

Site

Recovery

- No action required.

3.95.5 TtgSelectedP3

Measurement ID

14451

Measurement Group

Traffic Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTG with message priority 3

Collection Interval

5 min

Peg Condition

Each time a Route Group is selected from a Route List and these criteria are met:

- TTG is assigned to the Route Group within the Route List
- TTG is owned by the local DSR Node
- Request message's Application ID matches the Application ID is assigned to the local TTG
- TTG's Admin State - Enabled
- TTG's Current Loss Percent is less than or equal to the TTG Max Loss Percent Threshold attribute value assigned to the Route Group within the Route List
- Message Priority = 3

Measurement Scope

Site

Recovery

- No action necessary.

3.95.6 TtgSelectedP4

Measurement ID

14450

Measurement Group

Traffic Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTG with message priority 4

Collection Interval

5 min

Peg Condition

Each time a Route Group is selected from a Route List and these criteria are met:

- TTG is assigned to the Route Group within the Route List

- TTG is owned by the local DSR Node
- Request message's Application ID matches the Application ID is assigned to the local TTG
- TTG's Admin State - Enabled
- TTG's Current Loss Percent is less than or equal to the TTG Max Loss Percent Threshold attribute value assigned to the Route Group within the Route List
- Message Priority = 4

Measurement Scope

Site

Recovery

- No action necessary.

3.95.7 TtgSelectedP5

Measurement ID

14452

Measurement Group

Traffic Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTG with message priority 5

Collection Interval

5 min

Peg Condition

Each time a Route Group is selected from a Route List and these criteria are met:

- TTG is assigned to the Route Group within the Route List
- TTG is owned by the local DSR Node
- Request message's Application ID matches the Application ID is assigned to the local TTG
- TTG's Admin State - Enabled
- TTG's Current Loss Percent is less than or equal to the TTG Max Loss Percent Threshold attribute value assigned to the Route Group within the Route List
- Message Priority = 5

Measurement Scope

Site

Recovery

- No action necessary.

3.95.8 TtgSelectedP6

Measurement ID

14453

Measurement Group

Traffic Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTG with message priority 6

Collection Interval

5 min

Peg Condition

Each time a Route Group is selected from a Route List and these criteria are met:

- TTG is assigned to the Route Group within the Route List
- TTG is owned by the local DSR Node
- Request message's Application ID matches the Application ID is assigned to the local TTG
- TTG's Admin State - Enabled
- TTG's Current Loss Percent is less than or equal to the TTG Max Loss Percent Threshold attribute value assigned to the Route Group within the Route List
- Message Priority = 6

Measurement Scope

Site

Recovery

- No action necessary.

3.95.9 TtgSelectedP7

Measurement ID

14454

Measurement Group

Traffic Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTG with message priority 7

Collection Interval

5 min

Peg Condition

Each time a Route Group is selected from a Route List and these criteria are met:

- TTG is assigned to the Route Group within the Route List
- TTG is owned by the local DSR Node
- Request message's Application ID matches the Application ID is assigned to the local TTG
- TTG's Admin State - Enabled
- TTG's Current Loss Percent is less than or equal to the TTG Max Loss Percent Threshold attribute value assigned to the Route Group within the Route List
- Message Priority = 7

Measurement Scope

Site

Recovery

- No action necessary.

3.95.10 TtgSelectedP8

Measurement ID

14455

Measurement Group

Traffic Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTG with message priority 8

Collection Interval

5 min

Peg Condition

Each time a Route Group is selected from a Route List and these criteria are met:

- TTG is assigned to the Route Group within the Route List

- TTG is owned by the local DSR Node
- Request message's Application ID matches the Application ID is assigned to the local TTG
- TTG's Admin State - Enabled
- TTG's Current Loss Percent is less than or equal to the TTG Max Loss Percent Threshold attribute value assigned to the Route Group within the Route List
- Message Priority = 8

Measurement Scope

Site

Recovery

- No action necessary.

3.95.11 TtgSelectedP9

Measurement ID

14456

Measurement Group

Traffic Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTG with message priority 9

Collection Interval

5 min

Peg Condition

Each time a Route Group is selected from a Route List and these criteria are met:

- TTG is assigned to the Route Group within the Route List
- TTG is owned by the local DSR Node
- Request message's Application ID matches the Application ID is assigned to the local TTG
- TTG's Admin State - Enabled
- TTG's Current Loss Percent is less than or equal to the TTG Max Loss Percent Threshold attribute value assigned to the Route Group within the Route List
- Message Priority = 9

Measurement Scope

Site

Recovery

- No action necessary.

3.95.12 TtgSelectedP10

Measurement ID

14457

Measurement Group

Traffic Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTG with message priority 10

Collection Interval

5 min

Peg Condition

Each time a Route Group is selected from a Route List and these criteria are met:

- TTG is assigned to the Route Group within the Route List
- TTG is owned by the local DSR Node
- Request message's Application ID matches the Application ID is assigned to the local TTG
- TTG's Admin State - Enabled
- TTG's Current Loss Percent is less than or equal to the TTG Max Loss Percent Threshold attribute value assigned to the Route Group within the Route List
- Message Priority = 10

Measurement Scope

Site

Recovery

- No action necessary.

3.95.13 TtgSelectedP11

Measurement ID

14458

Measurement Group

Traffic Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTG with message priority 11

Collection Interval

5 min

Peg Condition

Each time a Route Group is selected from a Route List and these criteria are met:

- TTG is assigned to the Route Group within the Route List
- TTG is owned by the local DSR Node
- Request message's Application ID matches the Application ID is assigned to the local TTG
- TTG's Admin State - Enabled
- TTG's Current Loss Percent is less than or equal to the TTG Max Loss Percent Threshold attribute value assigned to the Route Group within the Route List
- Message Priority = 11

Measurement Scope

Site

Recovery

- No action necessary.

3.95.14 TtgSelectedP12

Measurement ID

14459

Measurement Group

Traffic Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTG with message priority 12

Collection Interval

5 min

Peg Condition

Each time a Route Group is selected from a Route List and these criteria are met:

- TTG is assigned to the Route Group within the Route List

- TTG is owned by the local DSR Node
- Request message's Application ID matches the Application ID is assigned to the local TTG
- TTG's Admin State - Enabled
- TTG's Current Loss Percent is less than or equal to the TTG Max Loss Percent Threshold attribute value assigned to the Route Group within the Route List
- Message Priority = 12

Measurement Scope

Site

Recovery

- No action necessary.

3.95.15 TtgSelectedP13

Measurement ID

14460

Measurement Group

Traffic Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTG with message priority 13

Collection Interval

5 min

Peg Condition

Each time a Route Group is selected from a Route List and these criteria are met:

- TTG is assigned to the Route Group within the Route List
- TTG is owned by the local DSR Node
- Request message's Application ID matches the Application ID is assigned to the local TTG
- TTG's Admin State - Enabled
- TTG's Current Loss Percent is less than or equal to the TTG Max Loss Percent Threshold attribute value assigned to the Route Group within the Route List
- Message Priority = 13

Measurement Scope

Site

Recovery

- No action necessary.

3.95.16 TtgSelectedP14

Measurement ID

14461

Measurement Group

Traffic Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTG with message priority 14

Collection Interval

5 min

Peg Condition

Each time a Route Group is selected from a Route List and these criteria are met:

- TTG is assigned to the Route Group within the Route List
- TTG is owned by the local DSR Node
- Request message's Application ID matches the Application ID is assigned to the local TTG
- TTG's Admin State - Enabled
- TTG's Current Loss Percent is less than or equal to the TTG Max Loss Percent Threshold attribute value assigned to the Route Group within the Route List
- Message Priority = 14

Measurement Scope

Site

Recovery

- No action necessary.

3.95.17 TtgSelectedP15

Measurement ID

14466

Measurement Group

Traffic Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTG with message priority 15

Collection Interval

5 min

Peg Condition

Each time a Route Group is selected from a Route List and these criteria are met:

- TTG is assigned to the Route Group within the Route List
- TTG is owned by the local DSR Node
- Request message's Application ID matches the Application ID is assigned to the local TTG
- TTG's Admin State - Enabled
- TTG's Current Loss Percent is less than or equal to the TTG Max Loss Percent Threshold attribute value assigned to the Route Group within the Route List
- Message Priority = 15

Measurement Scope

Site

Recovery

- No action necessary.

3.95.18 TtgSelectedPrimaryTtg

Measurement ID

14347

Measurement Group

Traffic Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTG ID)

Description

The number of request messages routed to the TTG where the TTG is associated with the primary Route Group in the Route List.

Collection Interval

5 min

Peg Condition

This measurement is updated when a Route Group is selected from a Route List and these criteria are met:

- TTG is assigned to the Route Group within the Route List
- TTG is owned by the local DSR Node
- Request message's Application-Id matches the Application-Id assigned to the local TTG
- TTG's Admin State = Enabled
- TTG's Current Loss Percent is less than or equal to the TTG Max Loss Percent Threshold attribute value assigned to the Route Group within the Route List
- Route Group within Route List is the current Active Route Group for the Route List

Measurement Scope

Site

Recovery

- No action required.

3.95.19 TtgSelectedSecondaryTtg

Measurement ID

14348

Measurement Group

Traffic Throttle Group Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTG ID)

Description

The number of request messages routed to the TTG where the TTG is associated with a secondary Route Group in the Route List.

Collection Interval

5 min

Peg Condition

This measurement is updated when a Route Group is selected from a Route List and these criteria are met:

- TTG is assigned to the Route Group within the Route List
- TTG is owned by the local DSR Node
- Request message's Application-Id matches the Application-Id assigned to the local TTG
- TTG's Admin State = Enabled
- TTG's Current Loss Percent is less than or equal to the TTG Max Loss Percent Threshold attribute value assigned to the Route Group within the Route List
- Route Group within Route List is not the current Active Route Group for the Route List

Measurement Scope

Site

Recovery

- No action required.

3.95.20 TtgTmLossRateRange1

Measurement ID

14340

Measurement Group

Traffic Throttle Group Performance

Measurement Type

Duration

Measurement Dimension

Arrayed (by TTG ID)

Description

Duration of TTG Loss Percent Range1

Collection Interval

5 min

Peg Condition

When the DRL changes a local TTG's Current Loss Percent value, it shall:

- Save the time of the event in the TTG's RT-DB record called "Loss Start Time"
- Save the new Current Loss Percent value in the TTG's RT-DB record
- If the TTG's old Current Loss Percent value is not equal to 0, then:
 - Calculate the duration of the time that the TTG's Current Loss Percent was set to the previous value based upon "Loss Start Time" and the current time
 - Determine which TtgTmLossRateRange-X measurement to update based upon the previous TTG Current Loss Percent value and the system-wide LossRateMax1, LossRateMax2, and LossRateMax3 values
 - Update the selected TtgTmLossRateRange-X measurement with the calculated duration of time

Measurement Scope

Site

Recovery

- No action required.

3.95.21 TtgTmLossRateRange2

Measurement ID

14341

Measurement Group

Traffic Throttle Group Performance

Measurement Type

Duration

Measurement Dimension

Arrayed (by TTG ID)

Description

Duration of TTG Loss Percent Range2

Collection Interval

5 min

Peg Condition

When the DRL changes a local TTG's Current Loss Percent value, it shall:

- Save the time of the event in the TTG's RT-DB record called "Loss Start Time"
- Save the new Current Loss Percent value in the TTG's RT-DB record
- If the TTG's old Current Loss Percent value is not equal to 0, then:
 - Calculate the duration of the time that the TTG's Current Loss Percent was set to the previous value based upon "Loss Start Time" and the current time
 - Determine which TtgTmLossRateRange-X measurement to update based upon the previous TTG Current Loss Percent value and the system-wide LossRateMax1, LossRateMax2, and LossRateMax3 values
 - Update the selected TtgTmLossRateRange-X measurement with the calculated duration of time

Measurement Scope

Site

Recovery

- No action required.

3.95.22 TtgTmLossRateRange3

Measurement ID

14342

Measurement Group

Traffic Throttle Group Performance

Measurement Type

Duration

Measurement Dimension

Arrayed (by TTG ID)

Description

Duration of TTG Loss Percent Range3

Collection Interval

5 min

Peg Condition

When the DRL changes a local TTG's Current Loss Percent value, it shall:

- Save the time of the event in the TTG's RT-DB record called "Loss Start Time"
- Save the new Current Loss Percent value in the TTG's RT-DB record
- If the TTG's old Current Loss Percent value is not equal to 0, then:
 - Calculate the duration of the time that the TTG's Current Loss Percent was set to the previous value based upon "Loss Start Time" and the current time
 - Determine which TtgTmLossRateRange-X measurement to update based upon the previous TTG Current Loss Percent value and the system-wide LossRateMax1, LossRateMax2, and LossRateMax3 values
 - Update the selected TtgTmLossRateRange-X measurement with the calculated duration of time

Measurement Scope

Site

Recovery

- No action required.

3.95.23 TtgTmLossRateRange4

Measurement ID

14343

Measurement Group

Traffic Throttle Group Performance

Measurement Type

Duration

Measurement Dimension

Arrayed (by TTG ID)

Description

Duration of TTG Loss Percent Range4

Collection Interval

5 min

Peg Condition

When the DRL changes a local TTG's Current Loss Percent value, it shall:

- Save the time of the event in the TTG's RT-DB record called "Loss Start Time"
- Save the new Current Loss Percent value in the TTG's RT-DB record
- If the TTG's old Current Loss Percent value is not equal to 0, then:
 - Calculate the duration of the time that the TTG's Current Loss Percent was set to the previous value based upon "Loss Start Time" and the current time

- Determine which TtgTmLossRateRange-X measurement to update based upon the previous TTG Current Loss Percent value and the system-wide LossRateMax1, LossRateMax2, and LossRateMax3 values
- Update the selected TtgTmLossRateRange-X measurement with the calculated duration of time

Measurement Scope

Site

Recovery

- No action required.

3.96 Traffic Throttle Point Performance Measurements

The Traffic Throttle Point (TTP) performance measurement report contains measurements that provide performance information that is specific to each TTP.

3.96.1 TtpDivertedInPOG

Measurement ID

14328

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTP ID)

Description

The number of request messages routed to TTP which were diverted from another TTP, with message priority 0 and color green.

Collection Interval

5 min

Peg Condition

The TTP was selected as defined by the peg condition criteria defined for [TtpSelected](#) and all of these criteria are met:

- Transaction is marked as "TTP Diverted" in its PTR
- Message Priority = 0
- Message Color = Green

Measurement Scope

Site

Recovery

- No action required.

3.96.2 TtpDivertedInP0Y

Measurement ID

14331

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTP ID)

Description

The number of request messages routed to TTP which were diverted from another TTP, with message priority 0 and color yellow.

Collection Interval

5 min

Peg Condition

The TTP was selected as defined by the peg condition criteria defined for [TtpSelected](#) and all of these criteria are met:

- Transaction is marked as "TTP Diverted" in its PTR
- Message Priority = 0
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action required.

3.96.3 TtpDivertedInP1G

Measurement ID

14329

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTP ID)

Description

The number of request messages routed to TTP which were diverted from another TTP, with message priority 1 and color green.

Collection Interval

5 min

Peg Condition

The TTP was selected as defined by the peg condition criteria defined for [TtpSelected](#) and all of these criteria are met:

- Transaction is marked as "TTP Diverted" in its PTR
- Message Priority = 1
- Message Color = Green

Measurement Scope

Site

Recovery

- No action required.

3.96.4 TtpDivertedInP1Y

Measurement ID

14332

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTP ID)

Description

The number of request messages routed to TTP which were diverted from another TTP, with message priority 1 and color yellow.

Collection Interval

5 min

Peg Condition

The TTP was selected as defined by the peg condition criteria defined for [TtpSelected](#) and all of these criteria are met:

- Transaction is marked as "TTP Diverted" in its PTR
- Message Priority = 1
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action required.

3.96.5 TtpDivertedInP2G

Measurement ID

14330

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTP ID)

Description

The number of request messages routed to TTP which were diverted from another TTP, with message priority 2 and color green.

Collection Interval

5 min

Peg Condition

The TTP was selected as defined by the peg condition criteria defined for [TtpSelected](#) and all of these criteria are met:

- Transaction is marked as "TTP Diverted" in its PTR
- Message Priority = 2
- Message Color = Green

Measurement Scope

Site

Recovery

- No action required.

3.96.6 TtpDivertedInP2Y

Measurement ID

14333

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTP ID)

Description

The number of request messages routed to TTP which were diverted from another TTP, with message priority 2 and color yellow.

Collection Interval

5 min

Peg Condition

The TTP was selected as defined by the peg condition criteria defined for [TtpSelected](#) and all of these criteria are met:

- Transaction is marked as "TTP Diverted" in its PTR
- Message Priority = 2
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action required.

3.96.7 TtpDivertedinP3G

Measurement ID

14426

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTP which were diverted from another TTP with message priority 3 and color green

Collection Interval

5 min

Peg Condition

Each time the TTP is selected based on when a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which has an active TTP associated with the transaction meeting and these criteria are met:

- Transaction is mark as TTP Diverted in its PTR
- Message Priority = 3
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.96.8 TtpDivertedinP3Y

Measurement ID

14439

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTP which were diverted from another TTP with message priority 3 and color yellow

Collection Interval

5 min

Peg Condition

Each time the TTP is selected based on when a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which has an active TTP associated with the transaction meeting and these criteria are met:

- Transaction is mark as TTP Diverted in its PTR
- Message Priority = 3
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.96.9 TtpDivertedinP4G

Measurement ID

14427

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTP which were diverted from another TTP with message priority 4 and color green

Collection Interval

5 min

Peg Condition

Each time the TTP is selected based on when a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which has an active TTP associated with the transaction meeting and these criteria are met:

- Transaction is mark as TTP Diverted in its PTR
- Message Priority = 4
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.96.10 TtpDivertedinP4Y

Measurement ID

14440

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTP which were diverted from another TTP with message priority 4 and color yellow

Collection Interval

5 min

Peg Condition

Each time the TTP is selected based on when a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which has an active TTP associated with the transaction meeting and these criteria are met:

- Transaction is mark as TTP Diverted in its PTR
- Message Priority = 4
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.96.11 TtpDivertedinP5G

Measurement ID

14428

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTP which were diverted from another TTP with message priority 5 and color green

Collection Interval

5 min

Peg Condition

Each time the TTP is selected based on when a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which has an active TTP associated with the transaction meeting and these criteria are met:

- Transaction is mark as TTP Diverted in its PTR
- Message Priority = 5
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.96.12 TtpDivertedinP5Y

Measurement ID

14441

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTP which were diverted from another TTP with message priority 5 and color yellow

Collection Interval

5 min

Peg Condition

Each time the TTP is selected based on when a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which has an active TTP associated with the transaction meeting and these criteria are met:

- Transaction is mark as TTP Diverted in its PTR
- Message Priority = 5
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.96.13 TtpDivertedinP6G

Measurement ID

14429

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTP which were diverted from another TTP with message priority 6 and color green

Collection Interval

5 min

Peg Condition

Each time the TTP is selected based on when a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which has an active TTP associated with the transaction meeting and these criteria are met:

- Transaction is mark as TTP Diverted in its PTR
- Message Priority = 6
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.96.14 TtpDivertedinP6Y

Measurement ID

14442

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTP which were diverted from another TTP with message priority 6 and color yellow

Collection Interval

5 min

Peg Condition

Each time the TTP is selected based on when a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which has an active TTP associated with the transaction meeting and these criteria are met:

- Transaction is mark as TTP Diverted in its PTR
- Message Priority = 6
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.96.15 TtpDivertedinP7G

Measurement ID

14430

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTP which were diverted from another TTP with message priority 7 and color green

Collection Interval

5 min

Peg Condition

Each time the TTP is selected based on when a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which has an active TTP associated with the transaction meeting and these criteria are met:

- Transaction is mark as TTP Diverted in its PTR
- Message Priority = 7
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.96.16 TtpDivertedinP7Y

Measurement ID

14443

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTP which were diverted from another TTP with message priority 7 and color yellow

Collection Interval

5 min

Peg Condition

Each time the TTP is selected based on when a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which has an active TTP associated with the transaction meeting and these criteria are met:

- Transaction is mark as TTP Diverted in its PTR
- Message Priority = 7
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.96.17 TtpDivertedinP8G

Measurement ID

14431

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTP which were diverted from another TTP with message priority 8 and color green

Collection Interval

5 min

Peg Condition

Each time the TTP is selected based on when a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which has an active TTP associated with the transaction meeting and these criteria are met:

- Transaction is mark as TTP Diverted in its PTR
- Message Priority = 8
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.96.18 TtpDivertedinP8Y

Measurement ID

14444

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTP which were diverted from another TTP with message priority 8 and color yellow

Collection Interval

5 min

Peg Condition

Each time the TTP is selected based on when a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which has an active TTP associated with the transaction meeting and these criteria are met:

- Transaction is mark as TTP Diverted in its PTR
- Message Priority = 8
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.96.19 TtpDivertedinP9G

Measurement ID

14432

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTP which were diverted from another TTP with message priority 9 and color green

Collection Interval

5 min

Peg Condition

Each time the TTP is selected based on when a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which has an active TTP associated with the transaction meeting and these criteria are met:

- Transaction is mark as TTP Diverted in its PTR
- Message Priority = 9
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.96.20 TtpDivertedinP9Y

Measurement ID

14445

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTP which were diverted from another TTP with message priority 9 and color yellow

Collection Interval

5 min

Peg Condition

Each time the TTP is selected based on when a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which has an active TTP associated with the transaction meeting and these criteria are met:

- Transaction is mark as TTP Diverted in its PTR
- Message Priority = 9

- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.96.21 TtpDivertedinP10G

Measurement ID

14433

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTP which were diverted from another TTP with message priority 10 and color green

Collection Interval

5 min

Peg Condition

Each time the TTP is selected based on when a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which has an active TTP associated with the transaction meeting and these criteria are met:

- Transaction is mark as TTP Diverted in its PTR
- Message Priority = 10
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.96.22 TtpDivertedinP10Y

Measurement ID

14446

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTP which were diverted from another TTP with message priority 10 and color yellow

Collection Interval

5 min

Peg Condition

Each time the TTP is selected based on when a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which has an active TTP associated with the transaction meeting and these criteria are met:

- Transaction is mark as TTP Diverted in its PTR
- Message Priority = 10
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.96.23 TtpDivertedinP11G

Measurement ID

14434

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTP which were diverted from another TTP with message priority 11 and color green

Collection Interval

5 min

Peg Condition

Each time the TTP is selected based on when a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing)

which has an active TTP associated with the transaction meeting and these criteria are met:

- Transaction is mark as TTP Diverted in its PTR
- Message Priority = 11
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.96.24 TtpDivertedinP11Y

Measurement ID

14447

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTP which were diverted from another TTP with message priority 11 and color yellow

Collection Interval

5 min

Peg Condition

Each time the TTP is selected based on when a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which has an active TTP associated with the transaction meeting and these criteria are met:

- Transaction is mark as TTP Diverted in its PTR
- Message Priority = 11
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.96.25 TtpDivertedinP12G

Measurement ID

14435

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTP which were diverted from another TTP with message priority 12 and color green

Collection Interval

5 min

Peg Condition

Each time the TTP is selected based on when a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which has an active TTP associated with the transaction meeting and these criteria are met:

- Transaction is mark as TTP Diverted in its PTR
- Message Priority = 12
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.96.26 TtpDivertedinP12Y

Measurement ID

14448

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTP which were diverted from another TTP with message priority 12 and color yellow

Collection Interval

5 min

Peg Condition

Each time the TTP is selected based on when a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which has an active TTP associated with the transaction meeting and these criteria are met:

- Transaction is mark as TTP Diverted in its PTR
- Message Priority = 12
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.96.27 TtpDivertedinP13G

Measurement ID

14436

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTP which were diverted from another TTP with message priority 13 and color green

Collection Interval

5 min

Peg Condition

Each time the TTP is selected based on when a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which has an active TTP associated with the transaction meeting and these criteria are met:

- Transaction is mark as TTP Diverted in its PTR
- Message Priority = 13
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.96.28 TtpDivertedinP13Y

Measurement ID

14449

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTP which were diverted from another TTP with message priority 13 and color yellow

Collection Interval

5 min

Peg Condition

Each time the TTP is selected based on when a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which has an active TTP associated with the transaction meeting and these criteria are met:

- Transaction is mark as TTP Diverted in its PTR
- Message Priority = 13
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.96.29 TtpDivertedinP14G

Measurement ID

14437

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTP which were diverted from another TTP with message priority 14 and color green

Collection Interval

5 min

Peg Condition

Each time the TTP is selected based on when a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which has an active TTP associated with the transaction meeting and these criteria are met:

- Transaction is mark as TTP Diverted in its PTR
- Message Priority = 14
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.96.30 TtpDivertedinP14Y

Measurement ID

14450

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTP which were diverted from another TTP with message priority 14 and color yellow

Collection Interval

5 min

Peg Condition

Each time the TTP is selected based on when a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which has an active TTP associated with the transaction meeting and these criteria are met:

- Transaction is mark as TTP Diverted in its PTR
- Message Priority = 14
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.96.31 TtpDivertedinP15G

Measurement ID

14438

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTP which were diverted from another TTP with message priority 15 and color green

Collection Interval

5 min

Peg Condition

Each time the TTP is selected based on when a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which has an active TTP associated with the transaction meeting and these criteria are met:

- Transaction is mark as TTP Diverted in its PTR
- Message Priority = 15
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.96.32 TtpDivertedinP15Y

Measurement ID

14451

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages routed to TTP which were diverted from another TTP with message priority 15 and color yellow

Collection Interval

5 min

Peg Condition

Each time the TTP is selected based on when a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected for Destination-Host Implicit Routing) which has an active TTP associated with the transaction meeting and these criteria are met:

- Transaction is mark as TTP Diverted in its PTR
- Message Priority = 15
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.96.33 TtpDivertedOutPOG

Measurement ID

14316

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTP ID)

Description

The number of request messages routed to TTP which were throttled/diverted, with message priority 0 and color green.

Collection Interval

5 min

Peg Condition

The TTP was selected as defined by the peg condition criteria defined for [TtpSelected](#) and all of these criteria are met:

- Transaction was diverted
- Message Priority = 0
- Message Color = Green

Measurement Scope

Site

Recovery

- No action required.

3.96.34 TtpDivertedOutPOY

Measurement ID

14319

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTP ID)

Description

The number of request messages routed to TTP which were throttled/diverted, with message priority 0 and color yellow.

Collection Interval

5 min

Peg Condition

The TTP was selected as defined by the peg condition criteria defined for [TtpSelected](#) and all of these criteria are met:

- Transaction was diverted
- Message Priority = 0
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action required.

3.96.35 TtpDivertedOutP1G

Measurement ID

14317

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTP ID)

Description

The number of request messages routed to TTP which were throttled/diverted, with message priority 1 and color green.

Collection Interval

5 min

Peg Condition

The TTP was selected as defined by the peg condition criteria defined for [TtpSelected](#) and all of these criteria are met:

- Transaction was diverted
- Message Priority = 1
- Message Color = Green

Measurement Scope

Site

Recovery

- No action required.

3.96.36 TtpDivertedOutP1Y

Measurement ID

14320

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTP ID)

Description

The number of request messages routed to TTP which were throttled/diverted, with message priority 1 and color yellow.

Collection Interval

5 min

Peg Condition

The TTP was selected as defined by the peg condition criteria defined for [TtpSelected](#) and all of these criteria are met:

- Transaction was diverted
- Message Priority = 1
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action required.

3.96.37 TtpDivertedOutP2G

Measurement ID

14318

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTP ID)

Description

The number of request messages routed to TTP which were throttled/diverted, with message priority 2 and color green.

Collection Interval

5 min

Peg Condition

The TTP was selected as defined by the peg condition criteria defined for [TtpSelected](#) and all of these criteria are met:

- Transaction was diverted
- Message Priority = 2
- Message Color = Green

Measurement Scope

Site

Recovery

- No action required.

3.96.38 TtpDivertedOutP2Y

Measurement ID

14321

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTP ID)

Description

The number of request messages routed to TTP which were throttled/diverted, with message priority 2 and color yellow.

Collection Interval

5 min

Peg Condition

The TTP was selected as defined by the peg condition criteria defined for [TtpSelected](#) and all of these criteria are met:

- Transaction was diverted
- Message Priority = 2
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action required.

3.96.39 TtpDivertedOutP3G

Measurement ID

14374

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 3 and color green routed to TTP which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was diverted
- Message Priority = 3
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.96.40 TtpDivertedOutP3Y

Measurement ID

14387

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 3 and color yellow routed to TTP which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was diverted
- Message Priority = 3
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.96.41 TtpDivertedOutP4G

Measurement ID

14375

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 4 and color green routed to TTP which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was diverted
- Message Priority = 4
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.96.42 TtpDivertedOutP4Y

Measurement ID

14388

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 4 and color yellow routed to TTP which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was diverted
- Message Priority = 4
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.96.43 TtpDivertedOutP5G

Measurement ID

14376

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 5 and color green routed to TTP which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was diverted
- Message Priority = 5
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.96.44 TtpDivertedOutP5Y

Measurement ID

14389

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 5 and color yellow routed to TTP which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was diverted
- Message Priority = 5
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.96.45 TtpDivertedOutP6G

Measurement ID

14377

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 6 and color green routed to TTP which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was diverted
- Message Priority = 6
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.96.46 TtpDivertedOutP6Y

Measurement ID

14390

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 6 and color yellow routed to TTP which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was diverted
- Message Priority = 6
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.96.47 TtpDivertedOutP7G

Measurement ID

14378

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 7 and color green routed to TTP which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was diverted
- Message Priority = 7
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.96.48 TtpDivertedOutP7Y

Measurement ID

14391

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 7 and color yellow routed to TTP which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was diverted
- Message Priority = 7
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.96.49 TtpDivertedOutP8G

Measurement ID

14379

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 8 and color green routed to TTP which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was diverted
- Message Priority = 8
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.96.50 TtpDivertedOutP8Y

Measurement ID

14392

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 8 and color yellow routed to TTP which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was diverted
- Message Priority = 8
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.96.51 TtpDivertedOutP9G

Measurement ID

14380

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 9 and color green routed to TTP which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was diverted
- Message Priority = 9
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.96.52 TtpDivertedOutP9Y

Measurement ID

14393

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 9 and color yellow routed to TTP which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was diverted
- Message Priority = 9
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.96.53 TtpDivertedOutP10G

Measurement ID

14381

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 10 and color green routed to TTP which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was diverted
- Message Priority = 10
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.96.54 TtpDivertedOutP10Y

Measurement ID

14394

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 10 and color yellow routed to TTP which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was diverted
- Message Priority = 10
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.96.55 TtpDivertedOutP11G

Measurement ID

14382

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 11 and color green routed to TTP which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was diverted
- Message Priority = 11
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.96.56 TtpDivertedOutP11Y

Measurement ID

14395

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 11 and color yellow routed to TTP which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was diverted
- Message Priority = 11
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.96.57 TtpDivertedOutP12G

Measurement ID

14383

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 12 and color green routed to TTP which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was diverted
- Message Priority = 12
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.96.58 TtpDivertedOutP12Y

Measurement ID

14396

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 12 and color yellow routed to TTP which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was diverted
- Message Priority = 12
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.96.59 TtpDivertedOutP13G

Measurement ID

14384

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 13 and color green routed to TTP which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was diverted
- Message Priority = 13
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.96.60 TtpDivertedOutP13Y

Measurement ID

14397

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 13 and color yellow routed to TTP which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was diverted
- Message Priority = 13
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.96.61 TtpDivertedOutP14G

Measurement ID

14385

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 14 and color green routed to TTP which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was diverted
- Message Priority = 14
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.96.62 TtpDivertedOutP14Y

Measurement ID

14398

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 14 and color yellow routed to TTP which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was diverted
- Message Priority = 14
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.96.63 TtpDivertedOutP15G

Measurement ID

14386

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 15 and color green routed to TTP which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was diverted
- Message Priority = 15
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.96.64 TtpDivertedOutP15Y

Measurement ID

14399

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 15 and color yellow routed to TTP which were throttled/diverted

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was diverted
- Message Priority = 15
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.96.65 TtpDoicException

Measurement ID

14300

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTP ID)

Description

The number of DOIC Protocol Errors.

Collection Interval

5 min

Peg Condition

This measurement is incremented whenever event TtpEvDoicException is generated.

Measurement Scope

Site

Recovery

- No action required.

3.96.66 TtpDropPOG

Measurement ID

14322

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTP ID)

Description

The number of transactions abandoned due to TTP throttling/diversion, with message priority 0 and color green.

Collection Interval

5 min

Peg Condition

The DRL abandoned routing of a transaction and all of these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 0
- Message Color = Green

Measurement Scope

Site

Recovery

- No action required.

3.96.67 TtpDropPOY

Measurement ID

14325

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTP ID)

Description

The number of transactions abandoned due to TTP throttling/diversion, with message priority 0 and color yellow.

Collection Interval

5 min

Peg Condition

The DRL abandoned routing of a transaction and all of these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 0
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action required.

3.96.68 TtpDropP1G

Measurement ID

14323

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTP ID)

Description

The number of transactions abandoned due to TTP throttling/diversion, with message priority 1 and color green.

Collection Interval

5 min

Peg Condition

The DRL abandoned routing of a transaction and all of these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 1
- Message Color = Green

Measurement Scope

Site

Recovery

- No action required.

3.96.69 TtpDropP1Y

Measurement ID

14326

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTP ID)

Description

The number of transactions abandoned due to TTP throttling/diversion, with message priority 1 and color yellow.

Collection Interval

5 min

Peg Condition

The DRL abandoned routing of a transaction and all of these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 1

- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action required.

3.96.70 TtpDropP2G

Measurement ID

14324

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTP ID)

Description

The number of transactions abandoned due to TTP throttling/diversion, with message priority 2 and color green.

Collection Interval

5 min

Peg Condition

The DRL abandoned routing of a transaction and all of these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 2
- Message Color = Green

Measurement Scope

Site

Recovery

- No action required.

3.96.71 TtpDropP2Y

Measurement ID

14327

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTP ID)

Description

The number of transactions abandoned due to TTP throttling/diversion, with message priority 2 and color yellow.

Collection Interval

5 min

Peg Condition

The DRL abandoned routing of a transaction and all of these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 2
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action required.

3.96.72 TtpDropP3G

Measurement ID

14400

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of transactions abandoned due to TTP throttling/diversion with message priority 3 and color green

Collection Interval

5 min

Peg Condition

Each time DRL abandoned routing of a transaction and these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 3
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.96.73 TtpDropP3Y

Measurement ID

14413

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of transactions abandoned due to TTP throttling/diversion with message priority 3 and color yellow

Collection Interval

5 min

Peg Condition

Each time DRL abandoned routing of a transaction and these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 3
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.96.74 TtpDropP4G

Measurement ID

14401

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of transactions abandoned due to TTP throttling/diversion with message priority 4 and color green

Collection Interval

5 min

Peg Condition

Each time DRL abandoned routing of a transaction and these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 4
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.96.75 TtpDropP4Y

Measurement ID

14414

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of transactions abandoned due to TTP throttling/diversion with message priority 4 and color yellow

Collection Interval

5 min

Peg Condition

Each time DRL abandoned routing of a transaction and these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 4
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.96.76 TtpDropP5G

Measurement ID

14402

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of transactions abandoned due to TTP throttling/diversion with message priority 5 and color green

Collection Interval

5 min

Peg Condition

Each time DRL abandoned routing of a transaction and these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 5
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.96.77 TtpDropP5Y

Measurement ID

14415

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of transactions abandoned due to TTP throttling/diversion with message priority 5 and color yellow

Collection Interval

5 min

Peg Condition

Each time DRL abandoned routing of a transaction and these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 5
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.96.78 TtpDropP6G

Measurement ID

14403

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of transactions abandoned due to TTP throttling/diversion with message priority 6 and color green

Collection Interval

5 min

Peg Condition

Each time DRL abandoned routing of a transaction and these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 6
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.96.79 TtpDropP6Y

Measurement ID

14416

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of transactions abandoned due to TTP throttling/diversion with message priority 6 and color yellow

Collection Interval

5 min

Peg Condition

Each time DRL abandoned routing of a transaction and these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 6
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.96.80 TtpDropP7G

Measurement ID

14404

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of transactions abandoned due to TTP throttling/diversion with message priority 7 and color green

Collection Interval

5 min

Peg Condition

Each time DRL abandoned routing of a transaction and these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 7
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.96.81 TtpDropP7Y

Measurement ID

14417

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of transactions abandoned due to TTP throttling/diversion with message priority 7 and color yellow

Collection Interval

5 min

Peg Condition

Each time DRL abandoned routing of a transaction and these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 7
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.96.82 TtpDropP8G

Measurement ID

14405

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of transactions abandoned due to TTP throttling/diversion with message priority 8 and color green

Collection Interval

5 min

Peg Condition

Each time DRL abandoned routing of a transaction and these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 8
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.96.83 TtpDropP8Y

Measurement ID

14418

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of transactions abandoned due to TTP throttling/diversion with message priority 8 and color yellow

Collection Interval

5 min

Peg Condition

Each time DRL abandoned routing of a transaction and these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 8
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.96.84 TtpDropP9G

Measurement ID

14406

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of transactions abandoned due to TTP throttling/diversion with message priority 9 and color green

Collection Interval

5 min

Peg Condition

Each time DRL abandoned routing of a transaction and these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 9
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.96.85 TtpDropP9Y

Measurement ID

14419

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of transactions abandoned due to TTP throttling/diversion with message priority 9 and color yellow

Collection Interval

5 min

Peg Condition

Each time DRL abandoned routing of a transaction and these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 9
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.96.86 TtpDropP10G

Measurement ID

14407

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of transactions abandoned due to TTP throttling/diversion with message priority 10 and color green

Collection Interval

5 min

Peg Condition

Each time DRL abandoned routing of a transaction and these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 10
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.96.87 TtpDropP10Y

Measurement ID

14420

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of transactions abandoned due to TTP throttling/diversion with message priority 10 and color yellow

Collection Interval

5 min

Peg Condition

Each time DRL abandoned routing of a transaction and these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 10
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.96.88 TtpDropP11G

Measurement ID

14408

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of transactions abandoned due to TTP throttling/diversion with message priority 11 and color green

Collection Interval

5 min

Peg Condition

Each time DRL abandoned routing of a transaction and these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 11
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.96.89 TtpDropP11Y

Measurement ID

14421

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of transactions abandoned due to TTP throttling/diversion with message priority 11 and color yellow

Collection Interval

5 min

Peg Condition

Each time DRL abandoned routing of a transaction and these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 11
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.96.90 TtpDropP12G

Measurement ID

14409

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of transactions abandoned due to TTP throttling/diversion with message priority 12 and color green

Collection Interval

5 min

Peg Condition

Each time DRL abandoned routing of a transaction and these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 12
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.96.91 TtpDropP12Y

Measurement ID

14422

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of transactions abandoned due to TTP throttling/diversion with message priority 12 and color yellow

Collection Interval

5 min

Peg Condition

Each time DRL abandoned routing of a transaction and these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 12
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.96.92 TtpDropP13G

Measurement ID

14410

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of transactions abandoned due to TTP throttling/diversion with message priority 13 and color green

Collection Interval

5 min

Peg Condition

Each time DRL abandoned routing of a transaction and these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 13
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.96.93 TtpDropP13Y

Measurement ID

14423

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of transactions abandoned due to TTP throttling/diversion with message priority 13 and color yellow

Collection Interval

5 min

Peg Condition

Each time DRL abandoned routing of a transaction and these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 13
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.96.94 TtpDropP14G

Measurement ID

14411

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of transactions abandoned due to TTP throttling/diversion with message priority 14 and color green

Collection Interval

5 min

Peg Condition

Each time DRL abandoned routing of a transaction and these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 14
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.96.95 TtpDropP14Y

Measurement ID

14424

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of transactions abandoned due to TTP throttling/diversion with message priority 14 and color yellow

Collection Interval

5 min

Peg Condition

Each time DRL abandoned routing of a transaction and these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 14
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.96.96 TtpDropP15G

Measurement ID

14412

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of transactions abandoned due to TTP throttling/diversion with message priority 15 and color green

Collection Interval

5 min

Peg Condition

Each time DRL abandoned routing of a transaction and these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 15
- Message Color = Green

Measurement Scope

Site

Recovery

- No action necessary.

3.96.97 TtpDropP15Y

Measurement ID

14425

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of transactions abandoned due to TTP throttling/diversion with message priority 15 and color yellow

Collection Interval

5 min

Peg Condition

Each time DRL abandoned routing of a transaction and these criteria are met:

- Last routing failure encountered was due to TTP diversion
- Message Priority = 15
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action necessary.

3.96.98 TtpHandledDoicOverrideFlag

Measurement ID

14309

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTP ID)

Description

The number of request messages routed to TTP which were not diverted due to priority override.

Collection Interval

5 min

Peg Condition

The TTP was selected as defined by the peg condition criteria defined for [TtpSelected](#) and the transaction was not diverted because the Request message priority is greater than or equal to the TTP's Override Message Priority Threshold attribute value.

Measurement Scope

Site

Recovery

- No action required.

3.96.99 TtpHandledPOG

Measurement ID

14310

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTP ID)

Description

The number of request messages routed to TTP which were not throttled, with message priority 0 and color green.

Collection Interval

5 min

Peg Condition

The TTP was selected as defined by the peg condition criteria defined for [TtpSelected](#) and all of these criteria are met:

- Transaction was not diverted
- Message Priority = 0
- Message Color = Green

Measurement Scope

Site

Recovery

- No action required.

3.96.100 TtpHandledPOY

Measurement ID

14313

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTP ID)

Description

The number of request messages routed to TTP which were not throttled, with message priority 0 and color yellow.

Collection Interval

5 min

Peg Condition

The TTP was selected as defined by the peg condition criteria defined for [TtpSelected](#) and all of these criteria are met:

- Transaction was not diverted
- Message Priority = 0
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action required.

3.96.101 TtpHandledP1G

Measurement ID

14314

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTP ID)

Description

The number of request messages routed to TTP which were not throttled, with message priority 1 and color green.

Collection Interval

5 min

Peg Condition

The TTP was selected as defined by the peg condition criteria defined for [TtpSelected](#) and all of these criteria are met:

- Transaction was not diverted
- Message Priority = 1
- Message Color = Green

Measurement Scope

Site

Recovery

- No action required.

3.96.102 TtpHandledP1Y

Measurement ID

14314

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTP ID)

Description

The number of request messages routed to TTP which were not throttled, with message priority 1 and color yellow.

Collection Interval

5 min

Peg Condition

The TTP was selected as defined by the peg condition criteria defined for [TtpSelected](#) and all of these criteria are met:

- Transaction was not diverted
- Message Priority = 1
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action required.

3.96.103 TtpHandledP2G

Measurement ID

14312

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTP ID)

Description

The number of request messages routed to TTP which were not throttled, with message priority 2 and color green.

Collection Interval

5 min

Peg Condition

The TTP was selected as defined by the peg condition criteria defined for [TtpSelected](#) and all of these criteria are met:

- Transaction was not diverted
- Message Priority = 2
- Message Color = Green

Measurement Scope

Site

Recovery

- No action required.

3.96.104 TtpHandledP2Y

Measurement ID

14315

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTP ID)

Description

The number of request messages routed to TTP which were not throttled, with message priority 2 and color yellow.

Collection Interval

5 min

Peg Condition

The TTP was selected as defined by the peg condition criteria defined for [TtpSelected](#) and all of these criteria are met:

- Transaction was not diverted
- Message Priority = 2
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action required.

3.96.105 TtpHandledP3G

Measurement ID

14337

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 3 and color green routed to TTP which were not throttled

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was not diverted
- Message Priority = 3
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.96.106 TtpHandledP3Y

Measurement ID

14338

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 3 and color yellow routed to TTP which were not throttled

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was not diverted
- Message Priority = 3
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.96.107 TtpHandledP4G

Measurement ID

14335

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTP ID)

Description

The number of request messages routed to TTP which were not throttled, with message priority 4 and color green.

Collection Interval

5 min

Peg Condition

The TTP was selected as defined by the peg condition criteria defined for [TtpSelected](#) and all of these criteria are met:

- Transaction was not diverted
- Message Priority = 4
- Message Color = Green

Measurement Scope

Site

Recovery

- No action required.

3.96.108 TtpHandledP4Y

Measurement ID

14336

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTP ID)

Description

The number of request messages routed to TTP which were not throttled, with message priority 4 and color yellow.

Collection Interval

5 min

Peg Condition

The TTP was selected as defined by the peg condition criteria defined for [TtpSelected](#) and all of these criteria are met:

- Transaction was not diverted
- Message Priority = 4
- Message Color = Yellow

Measurement Scope

Site

Recovery

- No action required.

3.96.109 TtpHandledP5G

Measurement ID

14352

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 5 and color green routed to TTP which were not throttled

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was not diverted
- Message Priority = 5
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.96.110 TtpHandledP5Y

Measurement ID

14363

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 5 and color yellow routed to TTP which were not throttled

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was not diverted
- Message Priority = 5
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.96.111 TtpHandledP6G

Measurement ID

14353

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 6 and color green routed to TTP which were not throttled

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was not diverted
- Message Priority = 6
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.96.112 TtpHandledP6Y

Measurement ID

14364

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 6 and color yellow routed to TTP which were not throttled

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was not diverted
- Message Priority = 6
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.96.113 TtpHandledP7G

Measurement ID

14354

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 7 and color green routed to TTP which were not throttled

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was not diverted
- Message Priority = 7
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.96.114 TtpHandledP7Y

Measurement ID

14365

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 7 and color yellow routed to TTP which were not throttled

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was not diverted
- Message Priority = 7
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.96.115 TtpHandledP8G

Measurement ID

14355

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 8 and color green routed to TTP which were not throttled

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was not diverted
- Message Priority = 8
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.96.116 TtpHandledP8Y

Measurement ID

14366

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 8 and color yellow routed to TTP which were not throttled

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was not diverted
- Message Priority = 8
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.96.117 TtpHandledP9G

Measurement ID

14356

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 9 and color green routed to TTP which were not throttled

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was not diverted
- Message Priority = 9
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.96.118 TtpHandledP9Y

Measurement ID

14367

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 9 and color yellow routed to TTP which were not throttled

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was not diverted
- Message Priority = 9
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.96.119 TtpHandledP10G

Measurement ID

14357

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 10 and color green routed to TTP which were not throttled

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was not diverted
- Message Priority = 10
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.96.120 TtpHandledP10Y

Measurement ID

14368

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 10 and color yellow routed to TTP which were not throttled

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was not diverted
- Message Priority = 10
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.96.121 TtpHandledP11G

Measurement ID

14358

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 11 and color green routed to TTP which were not throttled

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was not diverted
- Message Priority = 11
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.96.122 TtpHandledP11Y

Measurement ID

14369

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 11 and color yellow routed to TTP which were not throttled

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was not diverted
- Message Priority = 11
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.96.123 TtpHandledP12G

Measurement ID

14359

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 12 and color green routed to TTP which were not throttled

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was not diverted
- Message Priority = 12
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.96.124 TtpHandledP12Y

Measurement ID

14370

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 12 and color yellow routed to TTP which were not throttled

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was not diverted
- Message Priority = 12
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.96.125 TtpHandledP13G

Measurement ID

14360

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 13 and color green routed to TTP which were not throttled

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was not diverted
- Message Priority = 13
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.96.126 TtpHandledP13Y

Measurement ID

14371

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 13 and color yellow routed to TTP which were not throttled

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was not diverted
- Message Priority = 13
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.96.127 TtpHandledP14G

Measurement ID

14361

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 14 and color green routed to TTP which were not throttled

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was not diverted
- Message Priority = 14
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.96.128 TtpHandledP14Y

Measurement ID

14372

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 14 and color yellow routed to TTP which were not throttled

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was not diverted
- Message Priority = 14
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.96.129 TtpHandledP15G

Measurement ID

14362

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 15 and color green routed to TTP which were not throttled

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was not diverted
- Message Priority = 15
- Message Color = Green

Measurement Scope

Site

Recovery

- None

3.96.130 TtpHandledP15Y

Measurement ID

14373

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of request messages with message priority 15 and color yellow routed to TTP which were not throttled

Collection Interval

5 min

Peg Condition

Each time a Peer Node or Connection is selected from a Route Group (or a Peer node is selected for Destination-Host Implicit Routing) which is associated with a TTP. Additionally:

- Transaction was not diverted
- Message Priority = 15
- Message Color = Yellow

Measurement Scope

Site

Recovery

- None

3.96.131 TtpHandledRateAvg

Measurement ID

14307

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Average

Measurement Dimension

Arrayed (by TTP ID)

Description

Average TTP request message routing rate (messages per second).

Collection Interval

5 min

Peg Condition

The TTP was selected as defined by the peg condition criteria defined for [TtpSelected](#) and the transaction was not diverted.

Measurement Scope

Site

Recovery

- No action required.

3.96.132 TtpHandledRatePeak

Measurement ID

14306

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Max

Measurement Dimension

Arrayed (by TTP ID)

Description

Peak TTP request message routing rate (messages per second).

Collection Interval

5 min

Peg Condition

The TTP was selected as defined by the peg condition criteria defined for [TtpSelected](#) and the transaction was not diverted.

Measurement Scope

Site

Recovery

- No action required.

3.96.133 TtpSelected

Measurement ID

14305

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTP ID)

Description

The number of request messages routed to TTP.

Collection Interval

5 min

Peg Condition

This measurement is updated when a Peer Node or Connection is selected from a Route Group (or a Peer Node is selected or Destination-Host Implicit Routing) which has an active TTP associated with the transaction meeting the following criteria:

- Request message's Application-Id matches the Application-Id assigned to the TTP
- FQDN assigned to the selected Peer Node/Connection matches the FQDN of the Peer Node assigned to the TTP
- TTP's Throttling Admin State = Enabled

Measurement Scope

Site

Recovery

- No action required.

3.96.134 TtpTmLossRateRange1

Measurement ID

14301

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Duration

Measurement Dimension

Arrayed (by TTP ID)

Description

The duration of TTP Loss Percent Range1.

Collection Interval

5 min

Peg Condition

When the DRL changes a local TTP's Current Loss Percent value, it shall:

- Save the time of the event in the TTP's RT-DB record called "Loss Start Time"

- Save the new Current Loss Percent value in the TTG's RT-DB record
- If the TTG's old Current Loss Percent value is not equal to 0, then:
 - Calculate the duration of time that the TTG's Current Loss Percent was set to the previous value based upon "Loss Start Time" and the current time
 - Determine which TtgTmLossRateRange-X measurement to update based upon the previous TTG Current Loss Percent value and the system-wide LossRateMax1, LossRateMax2, and LossRateMax3 values
 - Update the selected TtgTmLossRateRange-X measurement with the calculated duration of time

Measurement Scope

Site

Recovery

- No action required.

3.96.135 TtpTmLossRateRange2

Measurement ID

14302

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Duration

Measurement Dimension

Arrayed (by TTP ID)

Description

The duration of TTP Loss Percent Range2.

Collection Interval

5 min

Peg Condition

When the DRL changes a local TTG's Current Loss Percent value, it shall:

- Save the time of the event in the TTG's RT-DB record called "Loss Start Time"
- Save the new Current Loss Percent value in the TTG's RT-DB record
- If the TTG's old Current Loss Percent value is not equal to 0, then:
 - Calculate the duration of time that the TTG's Current Loss Percent was set to the previous value based upon "Loss Start Time" and the current time
 - Determine which TtgTmLossRateRange-X measurement to update based upon the previous TTG Current Loss Percent value and the system-wide LossRateMax1, LossRateMax2, and LossRateMax3 values

- Update the selected TtgTmLossRateRange-X measurement with the calculated duration of time

Measurement Scope

Site

Recovery

- No action required.

3.96.136 TtpTmLossRateRange3

Measurement ID

14303

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Duration

Measurement Dimension

Arrayed (by TTP ID)

Description

The duration of TTP Loss Percent Range3.

Collection Interval

5 min

Peg Condition

When the DRL changes a local TTG's Current Loss Percent value, it shall:

- Save the time of the event in the TTG's RT-DB record called "Loss Start Time"
- Save the new Current Loss Percent value in the TTG's RT-DB record
- If the TTG's old Current Loss Percent value is not equal to 0, then:
 - Calculate the duration of time that the TTG's Current Loss Percent was set to the previous value based upon "Loss Start Time" and the current time
 - Determine which TtgTmLossRateRange-X measurement to update based upon the previous TTG Current Loss Percent value and the system-wide LossRateMax1, LossRateMax2, and LossRateMax3 values
 - Update the selected TtgTmLossRateRange-X measurement with the calculated duration of time

Measurement Scope

Site

Recovery

- No action required.

3.96.137 TtpTmLossRateRange4

Measurement ID

14304

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Duration

Measurement Dimension

Arrayed (by TTP ID)

Description

The duration of TTP Loss Percent Range4.

Collection Interval

5 min

Peg Condition

When the DRL changes a local TTG's Current Loss Percent value, it shall:

- Save the time of the event in the TTG's RT-DB record called "Loss Start Time"
- Save the new Current Loss Percent value in the TTG's RT-DB record
- If the TTG's old Current Loss Percent value is not equal to 0, then:
 - Calculate the duration of time that the TTG's Current Loss Percent was set to the previous value based upon "Loss Start Time" and the current time
 - Determine which TtgTmLossRateRange-X measurement to update based upon the previous TTG Current Loss Percent value and the system-wide LossRateMax1, LossRateMax2, and LossRateMax3 values
 - Update the selected TtgTmLossRateRange-X measurement with the calculated duration of time

Measurement Scope

Site

Recovery

- No action required.

3.96.138 TtpTmStaticThrottling

Measurement ID

14334

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Duration

Measurement Dimension

Arrayed (by TTP ID)

Description

The duration of time (in seconds) that TTP Static Throttling was being applied.

Collection Interval

5 min

Peg Condition

The time duration interval starts when any of these events occur:

- The TTP's Operational Reason is changed to "Static Rate Limit Exceeded"
- A new measurement collection interval begins and the TTP's Operational Reason is "Static Rate Limit Exceeded"

The time duration interval stops when any of these events occur:

- The TTP's Operational Reason is changed from "Static Rate Limit Exceeded" to any other value
- The current measurement collection interval ends

When a time duration interval completes, the time measured is added to the total measurement value.

Measurement Scope

Site

Recovery

- No action required.

3.96.139 TtpUniqueOLRs

Measurement ID

14308

Measurement Group

Traffic Throttle Point Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by TTP ID)

Description

The number of unique **DOIC OLRs** successfully processed.

Collection Interval

5 min

Peg Condition

This measurement is updated when a DOIC OLR is accepted, applied to the associated TTP and the OLR's Sequence Number is greater than the TTP's Sequence Number.

Measurement Scope

Site

Recovery

- No action required.

3.97 U-SBR Performance measurements

The U-SBR Performance measurement report contains measurements that provide performance information that is specific to the U-SBR.

3.97.1 GenericConcurrentUpdateStateMeas

Measurement ID

19854

Measurement Group

U-SBR Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by short name of the owner application)

Description

The total number of GenericConcurrentUpdateState events processed by the U-SBR server.

Collection Interval

5 min

Peg Condition

This measurement is incremented at the U-SBR server for each received GenericConcurrentUpdateState stack event.

Measurement Scope

Server Group

Recovery

- No action required.

3.97.2 GenericCreateOrReadStateMeas

Measurement ID

19851

Measurement Group

U-SBR Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by short name of the owner application)

Description

The total number of GenericCreateOrReadState events processed by the U-SBR server.

Collection Interval

5 min

Peg Condition

This measurement is incremented at the U-SBR server for each received GenericCreateOrReadState stack event.

Measurement Scope

Server Group

Recovery

- No action required.

3.97.3 GenericCreateStateMeas

Measurement ID

19850

Measurement Group

U-SBR Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by short name of the owner application)

Description

The total number of GenericCreateState events processed by the U-SBR server.

Collection Interval

5 min

Peg Condition

This measurement is incremented at the U-SBR server for each received GenericCreateState stack event.

Measurement Scope

Server Group

Recovery

- No action required.

3.97.4 GenericDeleteStateMeas

Measurement ID

19855

Measurement Group

U-SBR Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by short name of the owner application)

Description

The total number of GenericDeleteState events processed by the U-SBR server.

Collection Interval

5 min

Peg Condition

This measurement is incremented at the U-SBR server for each received GenericDeleteState stack event.

Measurement Scope

Server Group

Recovery

- No action required.

3.97.5 GenericErrMalformedRequestMeas

Measurement ID

19856

Measurement Group

U-SBR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The total number of Generic State events that could not be decoded by the U-SBR server.

Collection Interval

5 min

Peg Condition

This measurement is incremented at the U-SBR server for each stack event result that included the GenericErrMalformedRequest code.

Measurement Scope

Server Group

Recovery

- No action required.

3.97.6 GenericErrMeas

Measurement ID

19857

Measurement Group

U-SBR Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by short name of the owner application)

Description

The total number of GenericState events that could not be processed by the U-SBR Server and were replied to with a GenericErr code.

Collection Interval

5 min

Peg Condition

This measurement is incremented at the U-SBR server for each stack event result that included the GenericErr code.

Measurement Scope

Server Group

Recovery

- No action required.

3.97.7 GenericErrRecObsoletedMeas

Measurement ID

19858

Measurement Group

U-SBR Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by short name of the owner application)

Description

The total number of GenericConcurrentUpdateState events that did not lead to updating the record.

Collection Interval

5 min

Peg Condition

This measurement is incremented at the U-SBR server for each stack event result that included the GenericErrRecObsoletedMeas code.

Measurement Scope

Server Group

Recovery

- No action required.

3.97.8 GenericReadStateMeas

Measurement ID

19852

Measurement Group

U-SBR Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by short name of the owner application)

Description

The total number of GenericReadState events processed by the U-SBR server.

Collection Interval

5 min

Peg Condition

This measurement is incremented at the U-SBR server for each received GenericReadState stack event.

Measurement Scope

Server Group

Recovery

- No action required.

3.97.9 GenericTotalRequests

Measurement ID

19859

Measurement Group

U-SBR Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by short name of the owner application)

Description

The total number of Generic state request events that were received by the U-SBR.

Collection Interval

5 min

Peg Condition

This measurement is incremented at the U-SBR server for each stack event request received.

Measurement Scope

Server Group

Recovery

- No action required.

3.97.10 GenericUpdateStateMeas

Measurement ID

19853

Measurement Group

U-SBR Performance

Measurement Type

Simple

Measurement Dimension

Arrayed (by short name of the owner application)

Description

The total number of GenericUpdateState events processed by the U-SBR server.

Collection Interval

5 min

Peg Condition

This measurement is incremented at the U-SBR server for each received GenericUpdateState stack event.

Measurement Scope

Server Group

Recovery

- No action required.

3.98 vSTP Measurements

The vSTP measurement reports contain measurements that provide information specific to vSTP.

3.98.1 vENUM Performance Measurements

3.98.1.1 EnumQueryRxPeak

Measurement ID

22289

Measurement Group

vENUM Performance

Measurement Type

Max

Measurement Dimension

Single

Description

Maximum number of ENUM queries received.

Collection Interval

5 min

Peg Condition

When an ENUM query is received.

Measurement Scope

Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.1.2 EnumQueryRxAvg

Measurement ID

22290

Measurement Group

vENUM Performance

Measurement Type

Average

Measurement Dimension

Single

Description

Average number of ENUM queries received.

Collection Interval

5 min

Peg Condition

When an ENUM query is received.

Measurement Scope

Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.1.3 SuccessfulEnumTxPeak

Measurement ID

22391

Measurement Group

vENUM Performance

Measurement Type

Max

Measurement Dimension

Single

Description

Maximum number of ENUM queries sent.

Collection Interval

5 min

Peg Condition

When a successful ENUM response is sent.

Measurement Scope

Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.2 vSTP Association Exception measurements

3.98.2.1 VstpEvAsnFarEndClose

Measurement ID

21090

Measurement Group

vSTP Association Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The number of times a far end closed the association.

Collection Interval

30 min

Peg Condition

Each time the far end of the association closes the association by sending either SHUTDOWN or ABORT.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.2.2 VstpEvAsnMaintClose

Measurement ID

21091

Measurement Group

vSTP Association Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The number of times an association closed due to maintenance at the vSTP server.

Collection Interval

30 min

Peg Condition

Each time a manual change is made to the association administrative state from Enabled to Blocked or from Enabled to Disabled, causing the association to transition out of the ASP-UP protocol state.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.2.3 VstpEvAsnNoRespClose

Measurement ID

21092

Measurement Group

vSTP Association Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The number of times an association closed due to the lack of response from the far end.

Collection Interval

30 min

Peg Condition

Each time there is a lack of response from a peer node (such as far end).

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.2.4 VstpEvAsnCnxSuccess

Measurement ID

21093

Measurement Group

vSTP Association Usages

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The number of times an association is created successfully.

Collection Interval

30 min

Peg Condition

Each time an association comes up successfully.

Measurement Scope

NE, Server

Recovery

- No action required

3.98.2.5 VstpEvAsnCnxFail

Measurement ID

21094

Measurement Group

vSTP Association Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The number of times an association failed.

Collection Interval

30 min

Peg Condition

Each time an association failed.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.2.6 VstpTxAsnSendFail

Measurement ID

21095

Measurement Group

vSTP Association Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The number of times SCTP send failed for an association.

Collection Interval

30 min

Peg Condition

Each time a message fails to send on an association.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.2.7 VstpRxAasnRecvFail

Measurement ID

21096

Measurement Group

vSTP Association Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The number of times an association received failed for an association.

Collection Interval

30 min

Peg Condition

Each time a message receive failed for an association.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.2.8 VstpEvAsnSockOptionFail

Measurement ID

21097

Measurement Group

vSTP Association Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The number of times a socket option set failed for an association.

Collection Interval

30 min

Peg Condition

Each time a setting of the socket option failed for an association.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.2.9 VstpTmAsnBlkNotDown

Measurement ID

21100

Measurement Group

vSTP Association Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The number of seconds during the reporting interval during which the association was in the Blocked administrative state, but was not in ASP-DOWN state.

Collection Interval

30 min

Peg Condition

Each time an association is in blocked state, but not in ASP-DOWN state.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.2.10 VstpRxAAsnErrorMsg

Measurement ID

21101

Measurement Group

vSTP Association Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The number of M3UA Error messages received on an association.

Collection Interval

30 min

Peg Condition

Each time an M3UA Error message received on an association.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.2.11 VstpTxAsnErrorMsg

Measurement ID

21102

Measurement Group

vSTP Association Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The number of M3UA Error messages sent on an association.

Collection Interval

30 min

Peg Condition

Each time an M3UA Error message is sent on an association.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.2.12 VstpRxAInInvalidM3ua

Measurement ID

21103

Measurement Group

vSTP Association Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The number of invalid m3UA messages received on this association. An invalid M3UA message is a message that violates the M3UA protocol.

Collection Interval

30 min

Peg Condition

Each time an invalid M3UA message is received on the association.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.2.13 VstpSctpAdjIPToDwn

Measurement ID

21167

Measurement Group

vSTP Association Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The number of times configured IP address of an Adjacent Node goes from Available to Unavailable.

Collection Interval

30 min

Peg Condition

Each time the IP address of an Adjacent Node goes from Available to Unavailable.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.2.14 VstpRxAsnUnexpectedM3uaMsg

Measurement ID

21450

Measurement Group

vSTP Association Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The number of all (excluding SSNM and ASP Status) unexpected messages received on an association by the vSTP server.

Collection Interval

5 min

Peg Condition

This measurement is incremented when:

- M3UA receives a data message while the Association is not up.
- M3UA receives a data message while the link is not available.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.3 vSTP Association Usages measurements

3.98.3.1 VstpTxAsnOctets

Measurement ID

21098

Measurement Group

vSTP Association Usage

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The number of octets sent on an association.

Collection Interval

30 min

Peg Condition

Each time a number of octets are sent on an association.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.3.2 VstpRxAsnOctets

Measurement ID

21099

Measurement Group

vSTP Association Usage

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The number of octets received on an association.

Collection Interval

30 min

Peg Condition

Each time a number of octets are received on an association.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.4 vSTP CDPA TT measurements

3.98.4.1 VstpCdpaDiscardGTTAction

Measurement ID

21452

Measurement Group

vSTP CDPA TT

Measurement Type

Simple

Measurement Dimension

Arrayed per TT

Description

The total number of messages discarded by the DISCARD CdPA GTT action.

Collection Interval

30 min

Peg Condition

This measurement is incremented when the DISCARD GTT action is performed on CdPA translation.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.4.2 VstpCdpaUdtsGTTAction

Measurement ID

21451

Measurement Group

vSTP CDPA TT

Measurement Type

Simple

Measurement Dimension

Arrayed per TT

Description

The total number of messages discarded by the UDTS CdPA GTT action.

Collection Interval

30 min

Peg Condition

This measurement is incremented when the UDTS GTT action is performed on CdPA translation.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.4.3 VstpCdpaTcapErrGTTAction

Measurement ID

21455

Measurement Group

vSTP CDPA TT

Measurement Type

Simple

Measurement Dimension

Arrayed per TT

Description

The total number of messages discarded by the TCAP Error CdPA GTT action.

Collection Interval

30 min

Peg Condition

This measurement is incremented when the TCAP Error GTT action is performed on CdPA translation.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.4.4 VstpCdpaForwardGTTAction

Measurement ID

21458

Measurement Group

vSTP CDPA TT

Measurement Type

Simple

Measurement Dimension

Arrayed per TT

Description

The total number of messages forwarded by the Forward CdPA GTT action.

Collection Interval

30 min

Peg Condition

This measurement is incremented when the Forward GTT action is performed on CgPA translation.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.4.5 VstpCdpaDuplicateGTTAction

Measurement ID

21459

Measurement Group

vSTP CDPA TT

Measurement Type

Simple

Measurement Dimension

Arrayed per TT

Description

The total number of messages duplicated by the Duplicate CdPA GTT action.

Collection Interval

30 min

Peg Condition

This measurement is incremented when the Duplicate GTT action is performed on CdPA translation.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.4.6 VstpCdpaGTTActionSet

Measurement ID

21462

Measurement Group

vSTP CDPA TT

Measurement Type

Simple

Measurement Dimension

Arrayed per TT

Description

The total number of messages receiving any CdPA GTT action.

Collection Interval

30 min

Peg Condition

This measurement is incremented when any GTT action is performed on CdPA translation.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.4.7 VstpMSUCdpaGTTSuccessful

Measurement ID

21464

Measurement Group

vSTP CDPA TT

Measurement Type

Simple

Measurement Dimension

Arrayed per TT

Description

The number of CdPA GTTs successfully translated.

Collection Interval

30 min

Peg Condition

This measurement is incremented when a CdPA GTT is successfully translated.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.4.8 VstpMSUCdpaFlexiGTT

Measurement ID

21466

Measurement Group

vSTP CDPA TT

Measurement Type

Simple

Measurement Dimension

Arrayed per TT

Description

The total number of MSUs that successfully completed Flexible CdPA GTT.

Collection Interval

30 min

Peg Condition

This measurement is incremented when a Flexible CdPA GTT successfully completes.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.4.9 VstpCdpaGTTNoSelectorMatch

Measurement ID

21468

Measurement Group

vSTP CDPA TT

Measurement Type

Simple

Measurement Dimension

Arrayed per TT

Description

The number of MSUs for which CdPA selectors were not found.

Collection Interval

30 min

Peg Condition

This measurement is incremented when a CdPA GTT failed due a selector not being found.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.4.10 VstpCdpaGTTFail

Measurement ID

21470

Measurement Group

vSTP CDPA TT

Measurement Type

Simple

Measurement Dimension

Arrayed per TT

Description

The number of MSUs for which the CdPA GTT was unable to perform.

Collection Interval

30 min

Peg Condition

This measurement is incremented when a CdPA GTT failed due a valid translation not being found.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.5 vSTP CGPA TT measurements

3.98.5.1 VstpCgpaDiscardGTTAction

Measurement ID

21451

Measurement Group

vSTP CGPA TT

Measurement Type

Simple

Measurement Dimension

Arrayed per TT

Description

The total number of messages discarded by the DISCARD CgPA GTT action.

Collection Interval

30 min

Peg Condition

This measurement is incremented when the DISCARD GTT action is performed on CgPA translation.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.5.2 VstpCgpaUdtsGTTAction

Measurement ID

214513

Measurement Group

vSTP CGPA TT

Measurement Type

Simple

Measurement Dimension

Arrayed per TT

Description

The total number of messages discarded by the UDTs CgPA GTT action.

Collection Interval

30 min

Peg Condition

This measurement is incremented when the UDTs GTT action is performed on CgPA translation.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.5.3 VstpCgpaTcapErrGTTAction

Measurement ID

21455

Measurement Group

vSTP CGPA TT

Measurement Type

Simple

Measurement Dimension

Arrayed per TT

Description

The total number of messages discarded by the TCAP Error CgPA GTT action.

Collection Interval

30 min

Peg Condition

This measurement is incremented when the TCAP Error GTT action is performed on CgPA translation.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.5.4 VstpCgpaForwardGTTAction

Measurement ID

21457

Measurement Group

vSTP CGPA TT

Measurement Type

Simple

Measurement Dimension

Arrayed per TT

Description

The total number of messages forwarded by the Forward CgPA GTT action.

Collection Interval

30 min

Peg Condition

This measurement is incremented when the Forward GTT action is performed on CgPA translation.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.5.5 VstpCgpaDuplicateGTTAction

Measurement ID

21459

Measurement Group

vSTP CGPA TT

Measurement Type

Simple

Measurement Dimension

Arrayed per TT

Description

The total number of messages duplicated by the Duplicate CgPA GTT action.

Collection Interval

30 min

Peg Condition

This measurement is incremented when the Duplicate GTT action is performed on CgPA translation.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.5.6 VstpCgpaGTTActionSet

Measurement ID

21461

Measurement Group

vSTP CGPA TT

Measurement Type

Simple

Measurement Dimension

Arrayed per TT

Description

The total number of messages receiving any CgPA GTT action.

Collection Interval

30 min

Peg Condition

This measurement is incremented when any GTT action is performed on CgPA translation.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.5.7 VstpMSUCgpaGTTSuccessful

Measurement ID

21463

Measurement Group

vSTP CGPA TT

Measurement Type

Simple

Measurement Dimension

Arrayed per TT

Description

The number of CgPA GTTs successfully translated.

Collection Interval

30 min

Peg Condition

This measurement is incremented when a CgPA GTT is successfully translated.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.5.8 VstpMSUCgpaFlexiGTT

Measurement ID

21465

Measurement Group

vSTP CGPA TT

Measurement Type

Simple

Measurement Dimension

Arrayed per TT

Description

The total number of MSUs that successfully completed Flexible CgPA GTT.

Collection Interval

30 min

Peg Condition

This measurement is incremented when a Flexible CgPA GTT successfully completes.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.5.9 VstpCgpaGTTNoSelectorMatch

Measurement ID

21467

Measurement Group

vSTP CGPA TT

Measurement Type

Simple

Measurement Dimension

Arrayed per TT

Description

The number of MSUs for which CgPA selectors were not found.

Collection Interval

30 min

Peg Condition

This measurement is incremented when a CgPA GTT failed due a selector not being found.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.5.10 VstpCgpaGTTFail

Measurement ID

21469

Measurement Group

vSTP CGPA TT

Measurement Type

Simple

Measurement Dimension

Arrayed per TT

Description

The number of MSUs for which the CgPA GTT was unable to perform.

Collection Interval

30 min

Peg Condition

This measurement is incremented when a CgPA GTT failed due a valid translation not being found.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.6 vSTP Connection measurements

3.98.6.1 VstpRxOccupanyAvg

Measurement ID

21176

Measurement Group

vSTP Connection

Measurement Type

Average

Measurement Dimension

Arrayed by Connection ID

Description

The connection ingress buffer utilization average.

Collection Interval

5 min

Peg Condition

SCTP input connection queue utilization average.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.6.2 VstpRxOccupanyPeak

Measurement ID

21177

Measurement Group

vSTP Connection

Measurement Type

Max

Measurement Dimension

Arrayed by Connection ID

Description

The connection ingress buffer utilization peak.

Collection Interval

5 min

Peg Condition

The SCTP input connection queue utilization peak.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.6.3 VstpRxSctpDupTsn

Measurement ID

21178

Measurement Group

vSTP Connection

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

Duplicate TSNs on ingress.

Collection Interval

5 min

Peg Condition

The output from Linux networking stack.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.6.4 VstpRxSctpGapAck

Measurement ID

21179

Measurement Group

vSTP Connection

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

Gap acknowledgement on ingress.

Collection Interval

5 min

Peg Condition

The output from the Linux networking stack.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.6.5 VstpRxSctpChunk

Measurement ID

21180

Measurement Group

vSTP Connection

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

Number of SCTP chunks received over a connection.

Collection Interval

5 min

Peg Condition

The output from the Linux networking stack.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.6.6 VstpTxBufAvg

Measurement ID

21181

Measurement Group

vSTP Connection

Measurement Type

Average

Measurement Dimension

Arrayed by Connection ID

Description

Connection egress buffer utilization average.

Collection Interval

5 min

Peg Condition

The output from Linux networking stack.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.6.7 VstpTxBufPeak

Measurement ID

21182

Measurement Group

vSTP Connection

Measurement Type

Max

Measurement Dimension

Arrayed by Connection ID

Description

Connection egress buffer utilization peak.

Collection Interval

5 min

Peg Condition

The output from Linux networking stack.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.6.8 VstpTxSctpChunk

Measurement ID

21183

Measurement Group

vSTP Connection

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

SCTP total chunks on ingress.

Collection Interval

5 min

Peg Condition

The output from the Linux networking stack.

Measurement Scope

NE, Server

Recovery

- No action required

3.98.6.9 VstpTxSctpRtxChunk

Measurement ID

21184

Measurement Group

vSTP Connection

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

SCTP total chunks on ingress.

Collection Interval

5 min

Peg Condition

The output from the Linux networking stack.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.7 vSTP Connection Exception measurements

3.98.7.1 VstpTransportTxQueueFull

Measurement ID

21433

Measurement Group

vSTP Connection Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of egress messages that were discarded because the maximum number of messages queued in Transport Single Association Writer Queues exceeded a maximum capacity.

Collection Interval

30 min

Peg Condition

Check whether the single peers transmit data queue limit has reached its max limit. If the max limit is reached, then peg the measurement and discard the low priority events.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.8 vSTP Connection Performance measurements

3.98.8.1 VstpTxConnQueuePeak

Measurement ID

21156

Measurement Group

vSTP Connection Performance

Measurement Type

Max

Measurement Dimension

Arrayed by Connection ID

Description

Egress connection message queue utilization peak.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.8.2 VstpTxConnQueueAvg

Measurement ID

21157

Measurement Group

vSTP Connection Performance

Measurement Type

Average

Measurement Dimension

Arrayed by Connection ID

Description

Egress connection message queue utilization average.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.8.3 VstpSctpTransPeerCWNDPeak

Measurement ID

21168

Measurement Group

vSTP Connection Performance

Measurement Type

Max

Measurement Dimension

Arrayed by Connection ID

Description

The peak value of congestion window size recorded for the peer of an SCTP transport during the collection interval.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.8.4 VstpSctpTransPeerCWNDAvg

Measurement ID

21169

Measurement Group

vSTP Connection Performance

Measurement Type

Average

Measurement Dimension

Arrayed by Connection ID

Description

The average of congestion window size recorded for the peer of an SCTP transport during the collection interval.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.8.5 VstpSctpTransPeerSRTTPeak

Measurement ID

21170

Measurement Group

vSTP Connection Performance

Measurement Type

Max

Measurement Dimension

Arrayed by Connection ID

Description

The peak value of smoothed round trip time for the SCTP Transport address during the collection interval.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.8.6 VstpSctpTransPeerSRTTAvg

Measurement ID

21171

Measurement Group

vSTP Connection Performance

Measurement Type

Average

Measurement Dimension

Arrayed by Connection ID

Description

The average value of smoothed round trip time for the SCTP Transport address during the collection interval.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.8.7 VstpSctpTransUnAckedDataPeak

Measurement ID

21172

Measurement Group

vSTP Connection Performance

Measurement Type

Max

Measurement Dimension

Arrayed by Connection ID

Description

The peak number of unacknowledged DATA chunks pending for the peer of an SCTP Transport address during the collection interval.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.8.8 VstpSctpTransUnAckedDataAvg

Measurement ID

21173

Measurement Group

vSTP Connection Performance

Measurement Type

Average

Measurement Dimension

Arrayed by Connection ID

Description

The average number of unacknowledged DATA chunks pending for the peer of an SCTP Transport address during the collection interval.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.8.9 VstpSctpTransRTOPeak

Measurement ID

21174

Measurement Group

vSTP Connection Performance

Measurement Type

Max

Measurement Dimension

Arrayed by Connection ID

Description

The peak value of retransmission timeout in use for the SCTP Transport address.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.8.10 VstpSctpTransRTOAvg

Measurement ID

21175

Measurement Group
vSTP Connection Performance

Measurement Type
Average

Measurement Dimension
Arrayed by Connection ID

Description
The average value of retransmission timeout in use for the SCTP Transport address.

Collection Interval
5 min

Peg Condition
None

Measurement Scope
NE, Server

Recovery

- No action required.

3.98.9 vSTP Exception measurements

3.98.9.1 VstpGportNonCallRelay

Measurement ID
21659

Measurement Group
vSTP Exception

Measurement Type
Simple

Measurement Dimension
Single

Description
Number of non-call related messages relayed by G-Port.

Collection Interval
5 min

Peg Condition
None

Measurement Scope
Server Group

Recovery

- No action necessary.

3.98.9.2 VstpMnpDiscLssFul

Measurement ID

21661

Measurement Group

vSTP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of messages discarded due to the LSS stack queue being full.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.9.3 VstpMnpDiscSccpTxFail

Measurement ID

21662

Measurement Group

vSTP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of messages discarded by the LSS because of a send failure to the SCCP layer.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.9.4 VstpUdrDbDiscCATxFail

Measurement ID

21663

Measurement Group

vSTP MNP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of messages discarded by the LSS because of a send failure to the CA layer.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.9.5 VstpUdrDbDiscCADcdFail

Measurement ID

21668

Measurement Group

vSTP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of messages for which the CA query to UDR timed out.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.9.6 VstpUdrDbDiscPduFul

Measurement ID

21669

Measurement Group

vSTP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of messages discarded by LSS due to decode failure of CA response message.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.9.7 VstpUdrDbDiscIntErr

Measurement ID

21670

Measurement Group

vSTP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of messages discarded due to internal processing error.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.9.8 VstpMnpDiscIntErr

Measurement ID

21671

Measurement Group

vSTP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of messages discarded due to internal processing error.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.9.9 VstpMnpDbLookupFail

Measurement ID

21676

Measurement Group

vSTP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of MSISDN not found in UDR NPDB.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.9.10 VstpMnpDbQueryFailUDRConnDown

Measurement ID

21677

Measurement Group

vSTP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of MNP DB Queries not initiated due to UDR connectivity down.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.10 vSTP IDPR Performance measurements

3.98.10.1 VstpSccpIdprCdprn

Measurement ID
21739

Measurement Group
VSTP IDPR Performance

Measurement Type
Simple

Measurement Dimension
Single

Description
Total no of IDP messages handled by IDPRCDPN NPP service instance.

Collection Interval
30 min

Peg Condition
Messages handled by IDPRCDPN NPP service.

Measurement Scope
NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.2 VstpSccpIdprCdprn2

Measurement ID
21740

Measurement Group
VSTP IDPR Performance

Measurement Type
Simple

Measurement Dimension
Single

Description
Total no of IDP messages handled by IDPRCDPN2 NPP service instance.

Collection Interval
30 min

Peg Condition

Messages handled by IDPRCDPN2 NPP service.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.3 VstpSccpIdprCdpn3

Measurement ID

21741

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total no of IDP messages handled by IDPRCDPN3 NPP service instance.

Collection Interval

30 min

Peg Condition

Messages handled by IDPRCDPN3 NPP service.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.4 VstpSccpIdprCdpn4

Measurement ID

21742

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total no of IDP messages handled by IDPRCDPN4 NPP service instance.

Collection Interval

30 min

Peg Condition

Messages handled by IDPRCDPN4 NPP service.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.5 VstpSccpIdprMsrcv

Measurement ID

21743

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total MSUs targeted for IDP relay service.

Collection Interval

30 min

Peg Condition

Messages received by IDP relay service.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.6 VstpSccpIdprMsErr

Measurement ID

21744

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

MSUs processed by IDPR which had an encoding, decoding, or other error.

Collection Interval

5 min

Peg Condition

Peg the Error Count for MSUs received for IDPR Processing.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.7 VstpSccpIdpSkgstart

Measurement ID

21745

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total no of IDP messages that used SKGTARTG per IDPRCDPN1 Service instance.

Collection Interval

30 min

Peg Condition

IDP messages routed by SKGTARTG SA from IDPRCDPN1.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.8 VstpSccpIdprMsFail

Measurement ID

21771

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

MSUs processed by IDPR for which RTDB lookup failed or no SP/RN was found.

Collection Interval

30 min

Peg Condition

IDPR fail scenario.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.9 VstpSccpIdprMsSucc

Measurement ID

21770

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

MSUs processed by IDPR whose outgoing CDPN was modified.

Collection Interval

30 min

Peg Condition

IDPR success.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.10 VstpSccpMsGwsAGt

Measurement ID

21769

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

MSUs failing GW screening after global title.

Collection Interval

30 min

Peg Condition

MSUs failing GW screening after global title.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.11 VstpSccpIdpInpRtg4

Measurement ID

21768

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total no of IDP messages that used INPRTG per IDPRCDPN4 Service instance.

Collection Interval

30 min

Peg Condition

Message processed by INPRTG SA from IDPRCDPN4.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.12 VstpSccpIdpInpRtg3

Measurement ID

21767

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total no of IDP messages that used INPRTG per IDPRCDPN3 Service instance.

Collection Interval

30 min

Peg Condition

Message processed by INPRTG SA from IDPRCDPN3.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.13 VstpSccpIdpInpRtg2

Measurement ID

21766

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total no of IDP messages that used INPRTG per IDPRCDPN2 Service instance.

Collection Interval

30 min

Peg Condition

Message processed by INPRTG SA from IDPRCDPN2.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.14 VstpSccpIdpInpRtg

Measurement ID

21765

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total no of IDP messages that used INPRTG per IDPRCDPN Service instance.

Collection Interval

30 min

Peg Condition

Message processed by INPRTG SA from IDPRCDPN.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.15 VstpSccpIdpInpRlc4

Measurement ID

21764

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total no of Release responses sent by INPRTG per IDPRCDPN4 Service instance.

Collection Interval

30 min

Peg Condition

Release response sent by INPRTG from IDPRCDPN4.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.16 VstpSccpIdpInpRlc3

Measurement ID

21763

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total no of Release responses sent by INPRTG per IDPRCDPN3 Service instance.

Collection Interval

30 min

Peg Condition

Release response sent by INPRTG from IDPRCDPN3.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.17 VstpSccpIdpInpRlc2

Measurement ID

21762

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total no of Release responses sent by INPRTG per IDPRCDPN2 Service instance.

Collection Interval

30 min

Peg Condition

Release response sent by INPRTG from IDPRCDPN2.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.18 VstpSccpIdpInpRlc

Measurement ID

21761

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total no of Release responses sent by INPRTG per IDPRCDPN Service instance.

Collection Interval

30 min

Peg Condition

Release response sent by INPRTG from IDPRCDPN.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.19 VstpSccpIdpAPtySkr

Measurement ID

21760

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total IDP A-Party rqst attempts that fell through to Service Key (RTDB PT assigned SK/BCSM).

Collection Interval

30 min

Peg Condition

If executing SK routing with A-Party.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.20 VstpSccpIdpSkrtD

Measurement ID

21759

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total IDP rqst that fell through to and were Svc Key routed (RTDB PT in SK/BCSM) w/o A-party rtg.

Collection Interval

30 min

Peg Condition

If executing SK routing without A-Party checks then peg IDPSKRTD peg.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.21 VstpSccpIdpAPtyGtt

Measurement ID

21758

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total IDP A-Party rqst attempts that fell through GTT .

Collection Interval

30 min

Peg Condition

This peg is for APTY GTT fall-thru (with or without SK Routing).

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.22 VstpSccpIdpAPtyRtd

Measurement ID

21757

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total IDP rqsts A-Party routed based on PPSOPTS .

Collection Interval

30 min

Peg Condition

A-party routing success.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.23 VstpSccpIdpInpCont4

Measurement ID

21756

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total no of Continue responses sent by INPRTG per IDPRCDPN4 Service instanceCollection Interval .

Collection Interval

30 min

Peg Condition

Continue success sent by INPRTG per IDPRCDPN4 Service instance.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.24 VstpSccpIdpInpCont3

Measurement ID

21755

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total no of Continue responses sent by INPRTG per IDPRCDPN3 Service instanceCollection Interval .

Collection Interval

30 min

Peg Condition

Continue success sent by INPRTG per IDPRCDPN3 Service instance.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.25 VstpSccpIdpInpCont2

Measurement ID

21754

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total no of Continue responses sent by INPRTG per IDPRCDPN2 Service instanceCollection Interval .

Collection Interval

30 min

Peg Condition

Continue success sent by INPRTG per IDPRCDPN2 Service instance.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.26 VstpSccpIdpInpCont

Measurement ID

21753

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total no of Continue responses sent by INPRTG per IDPRCDPN Service instanceCollection Interval .

Collection Interval

30 min

Peg Condition

Continue success sent by INPRTG per IDPRCDPN Service instance.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.27 VstpSccpIdpInpConn4

Measurement ID

21752

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total no of Connect responses sent by INPRTG per IDPRCDPN4 Service instance.

Collection Interval

30 min

Peg Condition

Connect success sent by INPRTG per IDPRCDPN4 Service instance.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.28 VstpSccpIdpInpConn3

Measurement ID

21751

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total no of Connect responses sent by INPRTG per IDPRCDPN3 Service instance.

Collection Interval

30 min

Peg Condition

Connect success sent by INPRTG per IDPRCDPN3 Service instance.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.29 VstpSccpIdpInpConn2

Measurement ID

21750

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total no of Connect responses sent by INPRTG per IDPRCDPN2 Service instance.

Collection Interval

30 min

Peg Condition

Connect success sent by INPRTG per IDPRCDPN2 Service instance.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.30 VstpSccpIdpSkgart2

Measurement ID

21746

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total no of IDP messages that used SKGTARTG per IDPRCDPN2 Service instance.

Collection Interval

30 min

Peg Condition

IDP messages routed by SKGTARTG SA from IDPRCDPN2.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.31 VstpSccpIdpSkgart3

Measurement ID

21747

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total no of IDP messages that used SKGTARTG per IDPRCDPN3 Service instance.

Collection Interval

30 min

Peg Condition

IDP messages routed by SKGTARTG SA from IDPRCDPN3.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.32 VstpSccpIdpSkgtart4

Measurement ID

21748

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total no of IDP messages that used SKGTARTG per IDPRCDPN4 Service instance.

Collection Interval

30 min

Peg Condition

IDP messages routed by SKGTARTG SA from IDPRCDPN4.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.33 VstpSccpIdpInpConn

Measurement ID

21749

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total no of Connect responses sent by INPRTG per IDPRCDPN Service instance.

Collection Interval

30 min

Peg Condition

Connect success sent by INPRTG per IDPRCDPN Service instance.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.34 VstpSccpIdpBlkConn

Measurement ID

21788

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total number of IDP messages that matched the blacklist and generated a CONNECT response.

Collection Interval

30 min

Peg Condition

IDP messages that matched the blacklist and generated a CONNECT response.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.10.35 VstpSccpIdpBlkCont

Measurement ID

21789

Measurement Group

VSTP IDPR Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total number of IDP messages that did not match the blacklist and generated a CONTINUE response.

Collection Interval

30 min

Peg Condition

IDP messages that did not match the blacklist and generated a CONTINUE response.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.11 vSTP Licensing Measurements

The vSTP Licensing measurement report contains measurements providing information about Network Mps for vSTP.

3.98.11.1 VstpLicRxTPS

Measurement ID

21130

Measurement Group

VSTP LICENSING

Measurement Type

Simple

Measurement Dimension

Single

Description

Network wide Ingress Message Rate for vSTP.

Collection Interval

5 mins

Report Accumulation Interval(s)

5 min, Daily

Peg Condition

Network messages per second received on vSTP-MP

Measurement Scope

Network

Recovery

Contact [My Oracle Support](#) for any assistance.

3.98.11.2 VstpLicRxTPSPeak

Measurement ID

21131

Measurement Group

VSTP LICENSING

Measurement Type

Max

Measurement Dimension

Single

Description

Network wide Peak Ingress Message Rate for vSTP.

Collection Interval

5 mins

Report Accumulation Interval(s)

5 mins, Daily

Peg Condition

Network Peak messages per second received on vSTP-MP

Measurement Scope

Network

Recovery

Contact [My Oracle Support](#) for any assistance.

3.98.11.3 VstpLicTxTPS

Measurement ID

21132

Measurement Group

VSTP LICENSING

Measurement Type

Simple

Measurement Dimension

Single

Description

Network wide Egress Message Rate for vSTP.

Collection Interval

5 mins

Report Accumulation Interval(s)

5 mins, Daily

Peg Condition

Network messages per second sent by vSTP-MP

Measurement Scope

Network

Recovery

Contact [My Oracle Support](#) for any assistance.

3.98.11.4 VstpLicTxTPSPeak

Measurement ID

21133

Measurement Group

VSTP LICENSING

Measurement Dimension

Single

Measurement Type

Simple

Description

Network wide Peak Egress Message Rate for vSTP.

Collection Interval

5 mins

Report Accumulation Interval(s)

5 mins, Daily

Peg Condition

Network Peak messages per second sent by vSTP-MP

Measurement Scope

Network

Recovery

Contact [My Oracle Support](#) for any assistance.

3.98.11.5 VstpLicNERxMSU

Measurement ID

21134

Measurement Group

VSTP LICENSING

Measurement Dimension

Arrayed

Measurement Type

Simple

Description

Per Network Element Ingress Message Rate for vSTP

Collection Interval

5 mins

Report Accumulation Interval(s)

5 mins, Daily

Peg Condition

Network element MPS for the time interval ingress messages received on the vSTP-MP

Measurement Scope

Network

Recovery

Contact [My Oracle Support](#) for any assistance.

3.98.11.6 VstpLicNETxMSU

Measurement ID

21135

Measurement Group

VSTP LICENSING

Measurement Dimension

Arrayed

Measurement Type

Simple

Description

Per Network Element Egress Message Rate for vSTP

Collection Interval

5 mins

Report Accumulation Interval(s)

5 mins, Daily

Peg Condition

Network element MPS for the time interval ingress messages sent by the vSTP-MP

Measurement Scope

Network

Recovery

Contact [My Oracle Support](#) for any assistance.

3.98.12 vSTP Link Exception measurements

3.98.12.1 VstpRxlkErrorMsg

Measurement ID

21190

Measurement Group

vSTP Link Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Link ID

Description

The number of times an M3UA ERROR message was received for the link. M3UA ERROR messages are sent to indicate invalid m3UA signaling.

Collection Interval

30 min

Peg Condition

Each time an M3UA ERROR message is received and that ERROR message can be attributed to a specific link (such as the ERROR message contains a valid routing context or no routing context is needed).

Measurement Scope

Site

Recovery

1. If all is well, this value has a value of zero. A non-zero value indicates a problem with M3UA signaling sent by the MP server.
2. Look for event 19235 in **Alarms & Events**, and then **View History**. Event 19235 provides more information as to the exact reason for receipt of the ERROR message.
3. If the ERROR reason in event 19235 indicates a problem with routing context (such as error code 0x19), verify that the MP server link set and the SG are configured such that they agree on the routing context values that are used by each M3UA signaling link.
4. It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.12.2 VstpRxnkInvalidMsg

Measurement ID

21195

Measurement Group

vSTP Link Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Link ID

Description

The number of invalid M3UA messages received on the link. Invalid M3UA messages are messages that violate the M3UA protocol, but which can be attributed to a specific link.

Collection Interval

30 min

Peg Condition

Each time an invalid M3UA message is received for the link.

Measurement Scope

Site

Recovery

1. If all is well, this value has a value of zero. A non-zero value indicates a problem with M3UA signaling received by the MP server.
2. Look for event 19231 in **Alarms & Events**, and then **View History**. Event 19231 provides more information as to the exact reason for rejection of the ERROR message.
3. If the ERROR reason in event 19231 indicates a problem with routing context (such as error code 0x19), verify that the MP server link set and the SG are configured such that they agree on the routing context values that are used by each M3UA signaling link.
4. It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.12.3 VstpRxlNkMaxTpsExceeded

Measurement ID

21268

Measurement Group

vSTP Link Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Link ID

Description

The number of ingress messages M3RL discarded because of an internal link TPS overflow.

Collection Interval

30 min

Peg Condition

Each time an ingress data message is discarded due to the link TPS being exceeded.

Measurement Scope

Site

Recovery

- It is recommended to contact [My Oracle Support](#) for assistance if needed.

3.98.12.4 VstpTxLkMaxTpsExceeded

Measurement ID

21269

Measurement Group

vSTP Link Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Link ID

Description

The number of egress messages M3RL discarded because of an internal link TPS overflow.

Collection Interval

30 min

Peg Condition

Each time an egress data message is discarded due to the link TPS is exceeded.

Measurement Scope

Site

Recovery

- It is recommended to contact [My Oracle Support](#) for assistance if needed.

3.98.12.5 VstpRxnkMgmtTpsExceeded

Measurement ID

21270

Measurement Group

vSTP Link Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Link ID

Description

The number of ingress management messages M3RL discarded because of an internal link TPS overflow.

Collection Interval

30 min

Peg Condition

Each time an ingress network management message is discarded due to the link TPS being exceeded.

Measurement Scope

Site

Recovery

- It is recommended to contact [My Oracle Support](#) for assistance if needed.

3.98.12.6 VstpLnkFailed

Measurement ID

21449

Measurement Group

vSTP Link Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Link ID

Description

The number of times a link failed.

Collection Interval

5 min

Peg Condition

This measurement is incremented when:

- A Link Out Of Service Status message is received while the link is in Alignment state.
- A Link Out Of Service Status message is received while the link is in Proving State.
- A Link Out Of Service Status message is received while the link is in Ready State.
- A Link Out Of Service Status message is received while the link is in InService State.
- A Link Out Of Service Status message is received while the link is in Local Busy State.
- A Link Out Of Service Status message is received while the link is in Remote Busy State.
- A Link Out Of Service Status message is received while the link is in Remote Processor Outage State.
- Association is Down.
- The M2PA link stop request is received while connection is Up.
- A link is in Alignment State and the Alignment Timer expires.
- A link is in InService State and the Delayed Ack Timer T7 expires.
- A link is in Ready State and the Ready Timer expires.
- A link is in RemoteBusy State and the Congestion Timer is expired.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.12.7 VstpM2paMsgDscrdUnSupLen

Measurement ID

21471

Measurement Group

vSTP Link Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Link ID

Description

The number of M2PA User Data Messages discarded due to an Unsupported Message length received on the link.

Collection Interval

5 min

Peg Condition

This measurement is incremented when M2PA messages are discarded due to an unsupported message length received on a link.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.12.8 VstpM3uaMsgDscrdUnSupLen

Measurement ID

21472

Measurement Group

vSTP Link Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Link ID

Description

The number of M3UA User Data Messages discarded due to an Unsupported Message length received on the link.

Collection Interval

5 min

Peg Condition

This measurement is incremented when M3UA messages are discarded due to an unsupported message length received on a link.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.12.9 VstpM3rlLnkCongestionCount

Measurement ID

21953

Measurement Group

VSTP Link Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Link ID

Description

Number of times a signalling link enters congestion state.

Collection Interval

5 min

Peg Condition

Pegging octets of GT Routed Messages arrayed on Linkset.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.12.10 VstpM3rlnkFailureDueCongestion

Measurement ID

21955

Measurement Group

VSTP Link Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Link ID

Description

Number of signalling link declared failures due to excessive duration of congestion.

Collection Interval

5 min

Peg Condition

Pegging when a Link fails (i.e. Link state becomes OOS) due to congestion. Arrayed on Link.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.12.11 VstpM3rlnkCongestionTime

Measurement ID

21954

Measurement Group

VSTP Link Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Link ID

Description

Total duration of congestion state.

Collection Interval

5 min

Peg Condition

Pegging duration (in secs) for which link is in congestion state (i.e. congestion state can be any of CL1, CL2, CL3). Arrayed on Link.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.13 vSTP Link Performance measurements

3.98.13.1 VstpRxlknMSU

Measurement ID

21158

Measurement Group

vSTP Link Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of MSUs received on the link. It includes only DATA messages.

Collection Interval

30 min

Peg Condition

Each time an M3UA or M2PA message is received on the link.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.13.2 VstpTxLnkMSU

Measurement ID

21159

Measurement Group

vSTP Link Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of MSUs sent on the link. It includes only DATA messages.

Collection Interval

30 min

Peg Condition

Each time an M3UA or M2PA message is sent on the link.

Measurement Scope

NE, Server

Recovery

- No action required

3.98.13.3 VstpRxMgmtLnkMsg

Measurement ID

21160

Measurement Group

vSTP Link Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of SSNM messages received on the link.

Collection Interval

30 min

Peg Condition

Each time an M3UA or M2PA Link Management message is received on the link.

Measurement Scope

NE, Server

Recovery

- No action required

3.98.13.4 VstpTxLnkMSUOctets

Measurement ID

21185

Measurement Group

vSTP Link Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of MSU octets sent on the link. MSU octets includes a M3UA or M2PA DATA message.

Collection Interval

30 min

Peg Condition

Each time an M3UA or M2PA message is sent on the link.

Measurement Scope

NE, Server

Recovery

- No action required

3.98.13.5 VstpRxlLnkMSUOctets

Measurement ID

21186

Measurement Group

vSTP Link Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of MSU octets received on the link. MSU octets include an M3UA or M2PA DATA message.

Collection Interval

30 min

Peg Condition

Each time an M3UA or M2PA message is received on the link.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.13.6 VstpRxLnkSetMSU

Measurement ID

21192

Measurement Group

vSTP Linkset Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of MSUs received on the linkset. MSUs include all M3UA or M2PA DATA messages received on all links in the link set.

Collection Interval

30 min

Peg Condition

Each time an M3UA or M2PA DATA message is received on a link in the linkset.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.13.7 VstpTxMgmtLnkMsg

Measurement ID

21265

Measurement Group

vSTP Link Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of SSNM messages sent on the link.

Collection Interval

30 min

Peg Condition

Each time M3UA/M2PA transmits any Network management message on the link.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.13.8 VstpRxMgmtLnkMSUOctets

Measurement ID

21266

Measurement Group

vSTP Link Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of MSU octets received on the link. MSU octets include all M3UA non-DATA SSNM messages.

Collection Interval

30 min

Peg Condition

Each time M3UA/M2PA receives any non-DATA message octets on the link.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.13.9 VstpTxMgmtLnkMSUOctets

Measurement ID

21267

Measurement Group

vSTP Link Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of MSU octets sent on the link. MSU octets includes all M3UA non-DATA SSNM messages.

Collection Interval

30 min

Peg Condition

Each time M3UA/M2PA transmits any non-DATA message octets on the link,

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.13.10 VstpCOOPerformed

Measurement ID

21473

Measurement Group

vSTP Link Performance

Measurement Type

Simple

Measurement Dimension

Arrayed per link

Description

Number of times a Change Over Order is performed on the link.

Collection Interval

5 min

Peg Condition

This measurement is incremented when a Change Over Order is performed on the link.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.13.11 VstpECOPerformed

Measurement ID

21474

Measurement Group

vSTP Link Performance

Measurement Type

Simple

Measurement Dimension

Arrayed per link

Description

Number of times an Emergency Change Order is performed on the link.

Collection Interval

5 min

Peg Condition

This measurement is incremented when an Emergency Change Order is performed on the link.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.13.12 VstpTxLnkMSUSuccess

Measurement ID

21477

Measurement Group

vSTP Link Performance

Measurement Type

Simple

Measurement Dimension

Arrayed per link

Description

Number of M2PA Data messages successfully transmitted on the link.

Collection Interval

5 min

Peg Condition

This measurement is incremented when M2PA transmits the data messages successfully on a link.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.14 vSTP Link Usage measurements

3.98.14.1 VstpRxLinkTPSPeak

Measurement ID

21161

Measurement Group

vSTP Link Usage

Measurement Type

Max

Measurement Dimension

Arrayed by Link ID

Description

The peak ingress MSU received on a link.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.14.2 VstpRxLinkTPSAvg

Measurement ID

21162

Measurement Group

vSTP Link Usage

Measurement Type

Average

Measurement Dimension

Arrayed by Link ID

Description

The average ingress MSU received on a link.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.14.3 VstpTxLinkTPSPeak

Measurement ID

21163

Measurement Group

vSTP Link Usage

Measurement Type

Max

Measurement Dimension

Arrayed by Link ID

Description

The peak egress MSU sent on a link.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.14.4 VstpTxLinkTPSAvg

Measurement ID

21164

Measurement Group

vSTP Link Usage

Measurement Type

Average

Measurement Dimension

Arrayed by Link ID

Description

The average egress MSU sent on a link.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.14.5 VstpRxMgmtLinkTPSPeak

Measurement ID

21165

Measurement Group

vSTP Link Usage

Measurement Type

Max

Measurement Dimension

Arrayed by Link ID

Description

The peak ingress network management messages received on a link.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.14.6 VstpRxMgmtLinkTPSAvg

Measurement ID

21166

Measurement Group

vSTP Link Usage

Measurement Type

Average

Measurement Dimension

Arrayed by Link ID

Description

The average ingress network management messages received on a link.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.14.7 VstpTmLnkMOOS

Measurement ID

21187

Measurement Group

vSTP Link Usage

Measurement Type

Simple

Measurement Dimension

Arrayed by Link ID

Description

The number of seconds the link is manual out of service during the reporting period. A link is manual out of service when the link is in the Disabled administrative state.

Collection Interval

30 min

Peg Condition

Each time the link administrative state is set to Disabled.

Measurement Scope

NE, Server

Recovery

1. If a non-zero value in this field is unexpected (such as no link maintenance is known to have occurred), the link status can be viewed from **SS7/Sigtran**, and then **Maintenance**, and then **Links**.
2. Look in the event history using **Alarms & Events**, and then **View History** for event 19234, which records each change in the link's administrative state.
3. If the link was known to be under maintenance, this value represents the number of seconds during the reporting period that the link was in the Disable administrative state.

3.98.14.8 VstpTmLnkOOS

Measurement ID

21188

Measurement Group

vSTP Link Usage

Measurement Type

Simple

Measurement Dimension

Arrayed by Link ID

Description

The number of seconds the link is out of service during the reporting period.

Collection Interval

30 min

Peg Condition

Each time the link status reason is not Normal.

Measurement Scope

NE, Server

Recovery

1. If all is well, this measurement has a value of zero. This measurement represents the number of seconds during the reporting period that the link was out of service for any reason.
2. If the link of the link's association is known to be under maintenance, then a non-zero value in this measurement is expected.
3. Otherwise, the link status can be viewed from **SS7/Sigtran**, and then **Maintenance**, and then **Links**. Also, look in the event history using **Alarms & Events**, and then **View History** for events related to this link or the link's association.
4. It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.14.9 VstpTmLnkAvailable

Measurement ID

21189

Measurement Group

vSTP Link Usage

Measurement Type

Simple

Measurement Dimension

Arrayed by Link ID

Description

The number of seconds the link is in service during the reporting period. The link is considered to be in service if the link's status reason is Normal. An in-service is available for M3UA.

Collection Interval

30 min

Peg Condition

Each time the link status reason is Normal.

Measurement Scope

NE, Server

Recovery

1. If all is well, this value generally equals the length of the reporting period, meaning that the link was active for the entire reporting period.
2. If the link available time is not equal to the reporting period, it is due to:
 - link maintenance - measurements TmLnkMOOS and TmLnkOOS have non-zero values. Refer to the recovery steps for [VstpTmLnkMOOS](#).
 - link failure - measurement TmLnkOOS has a non-zero value. Refer to the recovery steps for [VstpTmLnkOOS](#).
 - link added during the reporting period - the report indicates that the data is incomplete for the reporting.
3. It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.14.10 VstpEvLnkMainCloseByPeer

Measurement ID

21196

Measurement Group

vSTP Link Usage

Measurement Type

Simple

Measurement Dimension

Arrayed by Link ID

Description

The number of times a link was closed due to an Asp-Inactive action. This count indicates the number of times a link transitioned from ASP-ACTIVE to ASP-INACTIVE.

Collection Interval

30 min

Peg Condition

Each time the link administrative state is changed from Enabled to Disabled, causing a protocol state transition from ASP-ACTIVE to ASP-INACTIVE.

Measurement Scope

NE, Server

Recovery

1. If the link is known to be under maintenance, no further action is necessary.
2. Link status is viewed at **Main Menu**, and then **SS7/Sigtran**, and then **Maintenance**, and then **Links**
3. View the event history at **Main Menu**, and then **Alarms & Events**, and then **View History** looking for event 19234. Event 19234 shows the manual link state transitions and contains a time stamp of when the change occurred.
4. The security logs at **Main Menu**, and then **Security Log**, and then **View History** can be searched using the time stamp from the event history log to determine which login performed the manual state change on the link.
5. It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.14.11 VstpRXPOMsg

Measurement ID

21447

Measurement Group

vSTP Link Usage

Measurement Type

Simple

Measurement Dimension

Arrayed by Link ID

Description

The number of Remote Processor Outage messages received on the link.

Collection Interval

5 min

Peg Condition

This measurement is incremented when Remote Processor Outage messages are received on a link.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.14.12 VstpRxRPRMsg

Measurement ID

21448

Measurement Group

vSTP Link Usage

Measurement Type

Simple

Measurement Dimension

Arrayed by Link ID

Description

The number of Remote Processor Recovered messages received on the link.

Collection Interval

5 min

Peg Condition

This measurement is incremented when Remote Processor Recovered messages are received on a link while the link was in a Remote Processor Outage state.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.15 vSTP Linkset Performance measurements

3.98.15.1 VstpTxLnkSetMSU

Measurement ID

21191

Measurement Group

vSTP Linkset Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of MSUs sent on the linkset. MSUs includes all M3UA or M2PA DATA messages sent on all links in the linkset.

Collection Interval

30 min

Peg Condition

Each time an M3UA or M2PA DATA message is sent on a link in the linkset.

Measurement Scope

Site

Recovery

- No action required.

3.98.15.2 VstpTxLnkSetMSUOctets

Measurement ID

21193

Measurement Group

vSTP Linkset Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of MSU octets sent on the linkset. MSU octets includes all M3UA or M2PA DATA octets sent on all links in the linkset. Octers for SCTP, IP, and Ethernet headers are not included.

Collection Interval

30 min

Peg Condition

Each time an M3UA or M2PA DATA message is sent on a link in the linkset.

Measurement Scope

Site

Recovery

- No action required.

3.98.15.3 VstpRxLnkSetMSUOctets

Measurement ID

21194

Measurement Group

vSTP Linkset Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of MSU octets received on the linkset. MSU octets includes all M3UA or M2PA DATA octets received on all links in the linkset. Octets for SCTP, IP, and Ethernet headers are not included.

Collection Interval

30 min

Peg Condition

Each time an M3UA or M2PA DATA message is received on a link in the linkset.

Measurement Scope

Site

Recovery

- No action required.

3.98.15.4 VstpRxnLksetScrPerformed

Measurement ID

21301

Measurement Group

vSTP Linkset Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of MSU on which MTP screening is performed.

Collection Interval

5 min

Peg Condition

When the number of MSUs on which MTP screening is performed.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.15.5 VstpRxM3rlnkSetDataOctetsRequireGTT

Measurement ID

21952

Measurement Group

VSTP Linkset Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of MTP3 message octets associated with MTP3 messages received that require GTT.

Collection Interval

5 min

Peg Condition

Pegging octets of GT Routed Messages arrayed on Linkset.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.16 vSTP M2PA Exception measurements

3.98.16.1 VstpTxM2paDataMsgDiscard

Measurement ID

21403

Measurement Group

VSTP M2PA Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

All Egress User Data messages dropped by the MP server at M2PA.

Collection Interval

30 min

Peg Condition

Each time an egress data message is dropped.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.16.2 VstpRxM2paDataMsgDiscard

Measurement ID

21404

Measurement Group

VSTP M2PA Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

All Ingress User Data messages dropped by the MP server at M2PA.

Collection Interval

30 min

Peg Condition

Each time an ingress data message is dropped.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.16.3 VstpM2paStackQueueFull

Measurement ID

21434

Measurement Group

VSTP M2PA Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of messages that were discarded because the vSTP M2PA Stack Event Queue was full.

Collection Interval

30 min

Peg Condition

The number of messages that were discarded because the M2PA Stack Event Queue was full.

Measurement Scope

NE, Server

Recovery

1. This measurement is primarily intended to assist in evaluating the need for additional vSTP processing capacity at a Network Element.
2. If both the peak and average measurement for multiple vSTPs within a Network Element are consistently near the recommended maximum engineered capacity of a vSTP over several collection intervals, then the number of vSTPs in the Network Element may need to be increased.
3. If the peak and average for an individual vSTP is significantly different than other vSTPs in the same Network Element, then a vSTP-specific hardware, software, or configuration problem may exist.
4. It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.17 vSTP M2PA Link Exception measurements

3.98.17.1 VstpTxM2paLinkBusy

Measurement ID

21405

Measurement Group

VSTP M2PA Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of link busy messages sent by M2PA..

Collection Interval

30 min

Peg Condition

Each time a link busy message is sent on the link.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.17.2 VstpRxM2paLinkBusy

Measurement ID

21406

Measurement Group

VSTP M2PA Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of link busy messages received by M2PA.

Collection Interval

30 min

Peg Condition

Each time a link busy message received on the link.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.17.3 VstpTxM2paLinkOOS

Measurement ID

21407

Measurement Group

VSTP M2PA Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of link OOS messages sent by M2PA.

Collection Interval

30 min

Peg Condition

Each time a link OOS message is sent on the link

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.17.4 VstpRxM2paLinkOOS

Measurement ID

21408

Measurement Group

VSTP M2PA Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of link OOS messages received by M2PA.

Collection Interval

30 min

Peg Condition

Each time a link OOS message is received on the link.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.17.5 VstpRxM2paInvalidFsn

Measurement ID

21409

Measurement Group

VSTP M2PA Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of times an invalid FSN is received on the M2PA link.

Collection Interval

30 min

Peg Condition

Each time an invalid value of FSN is received in an M2PA Data message.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.17.6 VstpRxM2paInvalidBsn

Measurement ID

21410

Measurement Group

VSTP M2PA Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of times invalid BSN received on the M2PA link.

Collection Interval

30 min

Peg Condition

Each time an invalid value of BSN is received in an M2PA Data message.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.17.7 VstpM2paT1TimerExpired

Measurement ID

21411

Measurement Group

VSTP M2PA Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of M2PA alignment failures due to T1 (ready) expiry.

Collection Interval

30 min

Peg Condition

Each time M2PA alignment failed due to T1 (ready) timer expiry.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.17.8 VstpM2paT2TimerExpired

Measurement ID

21412

Measurement Group

VSTP M2PA Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of M2PA alignment failures due to T2 (alignment) expiry.

Collection Interval

30 min

Peg Condition

Each time M2PA alignment failed due to T2 (alignment) timer expiry.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.17.9 VstpM2paT3TimerExpired

Measurement ID

21413

Measurement Group

VSTP M2PA Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of M2PA alignment failures due to T3 (proving) expiry.

Collection Interval

30 min

Peg Condition

Each time M2PA alignment failed due to T3 (proving) timer expiry.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.17.10 VstpM2paT6TimerExpired

Measurement ID

21414

Measurement Group

VSTP M2PA Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of outages caused by T6 (remote congestion) expiry.

Collection Interval

30 min

Peg Condition

Each time there are outages caused by T6 (remote congestion) timer expiry.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.17.11 VstpM2paT7TimerExpired

Measurement ID

21415

Measurement Group

VSTP M2PA Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of outages caused by T7 (excessive acknowledgement delay) expiry at M2PA.

Collection Interval

30 min

Peg Condition

Each time there are outages caused by T7 (excessive acknowledgement delay) timer expiry.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.17.12 VstpM2paAlignFailDueToAssocFail

Measurement ID

21416

Measurement Group

VSTP M2PA Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of M2PA alignment failures due to association failure.

Collection Interval

30 min

Peg Condition

Each time link alignment failed due to Association Failure.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.17.13 VstpM2paAlignFailDueToProtoError

Measurement ID

21417

Measurement Group

VSTP M2PA Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of M2PA alignment failures due to protocol error (all causes).

Collection Interval

30 min

Peg Condition

Each time link alignment failed due to protocol error.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.17.14 VstpM2paAlignFailDueToOOSReceived

Measurement ID

21418

Measurement Group

VSTP M2PA Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of M2PA alignment failures due to the peer sending a Link Status Out of Service.

Collection Interval

30 min

Peg Condition

Each time link alignment failed due to OOS received.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.17.15 VstpM2paLinkOutageDueToOOS

Measurement ID

21420

Measurement Group

VSTP M2PA Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of outages caused by receipt of a Link Status Out of Service at M2PA.

Collection Interval

30 min

Peg Condition

Each time there is a received Link Status Out of Service message at M2PA.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.18 vSTP M2PA Link Performance measurements

3.98.18.1 VstpTxM2paNonDataMsg

Measurement ID

21439

Measurement Group

VSTP M2PA Performance

Measurement Type

Simple

Measurement Dimension

Simple

Description

All M2PA non-data messages (such as M2PA Link Status) sent by the MP server.

Collection Interval

30 min

Peg Condition

Each time an M2PA non-data message (such as Link Status Message) is sent by the MP server

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.18.2 VstpRxM2paNonDataMsg

Measurement ID

21440

Measurement Group

VSTP M2PA Performance

Measurement Type

Simple

Measurement Dimension

Simple

Description

All M2PA non-Data messages (such as M2PA Link Status) received by the MP server.

Collection Interval

30 min

Peg Condition

Each time an M2PA non-Data message (such as Link Status Message) is received by the MP server.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.18.3 VstpTxM2paDataAckMsg

Measurement ID

21441

Measurement Group

VSTP M2PA Performance

Measurement Type

Simple

Measurement Dimension

Simple

Description

All M2PA Data Acknowledgement messages sent by the MP server on M2PA.

Collection Interval

30 min

Peg Condition

Each time a Data Acknowledgement messages is sent by MP server on M2PA.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.18.4 VstpRxM2paDataAckMsg

Measurement ID

21442

Measurement Group

VSTP M2PA Performance

Measurement Type

Simple

Measurement Dimension

Simple

Description

All M2PA Data Acknowledgement messages received by the MP server on the M2PA.

Collection Interval

30 min

Peg Condition

Each time a Data Acknowledgement message is received by the MP server on the M2PA.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.18.5 VstpTxNetworkTestLnkMsg

Measurement ID

21443

Measurement Group

VSTP M2PA Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of Regular/Special network Test and Maintenance messages sent on the link.

Collection Interval

30 min

Peg Condition

Each time a Regular/Special network Test and Maintenance message sent by the MP server on the M2PA.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.18.6 VstpRxNetworkTestLnkMsg

Measurement ID

21444

Measurement Group

VSTP M2PA Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of Regular/Special network Test and Maintenance messages received on the link.

Collection Interval

30 min

Peg Condition

Each time a Regular/Special network Test and Maintenance message received by the MP server on the M2PA.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.19 vSTP M2PA Performance measurements

3.98.19.1 VstpTxM2paDataMsg

Measurement ID

21401

Measurement Group

VSTP M2PA Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

All M2PA User Data messages sent by the MP server, including MTP3 network management messages.

Collection Interval

30 min

Peg Condition

Each time a data message is sent.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.19.2 VstpRxM2paDataMsg

Measurement ID

21402

Measurement Group

VSTP M2PA Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

All M2PA User Data messages received by the MP server, including MTP3 network management messages.

Collection Interval

30 min

Peg Condition

Each time a data message is received.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.19.3 VstpM2paStackQueuePeak

Measurement ID

21435

Measurement Group

VSTP M2PA Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak vSTP M2PA Network Management Event Queue utilization (0-100%) measured during the collection interval.

Collection Interval

30 min

Peg Condition

The maximum vSTP M2PA Stack Event Queue utilization sample taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. This measurement is primarily intended to assist in evaluating the need for additional vSTP processing capacity at a Network Element.
2. If both the peak and average measurement for multiple vSTPs within a Network Element are consistently near the recommended maximum engineered capacity of

a vSTP over several collection intervals, then the number of vSTPs in the Network Element may need to be increased.

3. If the peak and average for an individual vSTP is significantly different than other vSTPs in the same Network Element, then a vSTP-specific hardware, software, or configuration problem may exist.
4. It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.19.4 VstpM2paStackQueueAvg

Measurement ID

21436

Measurement Group

VSTP M2PA Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average vSTP M2PA Network Management Event Queue utilization (0-100%) measured during the collection interval.

Collection Interval

30 min

Peg Condition

The average of all vSTP M2PA Stack Event Queue utilization samples taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. This measurement is primarily intended to assist in evaluating the need for additional vSTP processing capacity at a Network Element.
2. If both the peak and average measurement for multiple vSTPs within a Network Element are consistently near the recommended maximum engineered capacity of a vSTP over several collection intervals, then the number of vSTPs in the Network Element may need to be increased.
3. If the peak and average for an individual vSTP is significantly different than other vSTPs in the same Network Element, then a vSTP-specific hardware, software, or configuration problem may exist.
4. It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.19.5 VstpTxM2paDataMsgSuccess

Measurement ID

21476

Measurement Group

VSTP M2PA Performance

Measurement Type

Simple

Measurement Dimension

Arrayed per link

Description

Number of M2PA Data message successfully transmitted.

Collection Interval

5 min

Peg Condition

This measurement is incremented when M2PA transmits the data messages successfully.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.20 vSTP M3UA Exception measurements

3.98.20.1 VstpRxInvalidM3uaMsg

Measurement ID

21027

Measurement Group

VSTP M3UA Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of invalid M3UA messages received on this link. An invalid M3UA message is a message that violates the M3UA protocol.

Collection Interval

30 min

Peg Condition

Each time an invalid M3UA message is received on the association.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.20.2 VstpConnRejectedUnknownPeer

Measurement ID

21028

Measurement Group

VSTP M3UA Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of times a connection is rejected from the unknown peer on the vSTP server.

Collection Interval

30 min

Peg Condition

Each time the association has been rejected due to an IP address validation failure in the SCTP INITs/INIT-ACKs transmitted by the Adjacent Node.

Measurement Scope

NE, Server

Recovery

1. If all is well, this measurement will have a zero value. A non-zero value indicates that the Adjacent Node has attempted to connect to the Peer IP Address at least once, but the connection attempt was rejected because the IP addresses advertised by the Adjacent Node failed verification.
2. Look for event 70051 in the event history log at **Main Menu**, and then **Alarms & Events**, and then **View History**. Event 70051 provides more details about the cause of the failure.
3. Verify the SCTP validation mode is as desired.
4. It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.20.3 VstpRxM3uaDataMsgDiscarded

Measurement ID

21271

Measurement Group

VSTP M3UA Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of M3UA DATA messages received by the server that are discarded due to the link being in an Inactive or Down state.

Collection Interval

30 min

Peg Condition

Each time a link is in an Inactive or Down state.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.20.4 VstpTxM3uaDataMsgDiscarded

Measurement ID

21272

Measurement Group

VSTP M3UA Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of egress data messages discarded by M3UA due to link being in inactive or down state.

Collection Interval

30 min

Peg Condition

This measurement is incremented when M3UA discards egress data messages due to the link being in an inactive or down state.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.20.5 VstpRxM3uaNonDataMsgDiscarded

Measurement ID

21283

Measurement Group

VSTP M3UA Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of ingress management messages discarded by M3UA due to link being in inactive or down state.

Collection Interval

30 min

Peg Condition

This measurement is incremented when M3UA discards ingress data messages due to the link being in an inactive or down state.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.20.6 VstpTxM3uaDataMsgDiscarded

Measurement ID

21284

Measurement Group

VSTP M3UA Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of egress messages discarded by M3UA due to a link being in inactive or down state.

Collection Interval

30 min

Peg Condition

This measurement is incremented when M3UA discards egress data messages due to the link being in an inactive or down state.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.21 vSTP M3UA Performance measurements

3.98.21.1 VstpM3UAShieldQueuePeak

Measurement ID

21430

Measurement Group

vSTP MTP3 Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak vSTP M3UA Network Management Event Queue utilization (0-100%) measured during the collection interval.

Collection Interval

30 min

Peg Condition

The maximum vSTP M3UA Stack Event Queue utilization sample taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. This measurement is primarily intended to assist in evaluating the need for additional vSTP processing capacity at a Network Element.
2. If both the peak and average measurement for multiple vSTPs within a Network Element are consistently near the recommended maximum engineered capacity of a vSTP over several collection intervals, then the number of vSTPs in the Network Element may need to be increased.
3. If the peak and average for an individual vSTP is significantly different than other vSTPs in the same Network Element, then a vSTP-specific hardware, software, or configuration problem may exist.
4. It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.21.2 VstpM3UAShieldQueueAvg

Measurement ID

21431

Measurement Group

vSTP M3UA Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average vSTP M3UA Network Management Event Queue utilization (0-100%) measured during the collection interval.

Collection Interval

30 min

Peg Condition

The average of all vSTP M3UA Stack Event Queue utilization samples taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. This measurement is primarily intended to assist in evaluating the need for additional vSTP processing capacity at a Network Element.
2. If both the peak and average measurement for multiple vSTPs within a Network Element are consistently near the recommended maximum engineered capacity of a vSTP over several collection intervals, then the number of vSTPs in the Network Element may need to be increased.
3. If the peak and average for an individual vSTP is significantly different than other vSTPs in the same Network Element, then a vSTP-specific hardware, software, or configuration problem may exist.
4. It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.21.3 VstpM3uaTxTaskPeak

Measurement ID

21437

Measurement Group

vSTP M3UA Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The peak vSTP M3UA Tx Event Queue utilization (0-100%) measured during the collection interval.

Collection Interval

30 min

Peg Condition

The peak vSTP M2PA Stack Event Queue utilization measured during the collection interval.

Measurement Scope

Site

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.21.4 VstpM3uaTxTaskAvg

Measurement ID

21438

Measurement Group

vSTP M3UA Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The average vSTP M3UA Tx Event Queue utilization (0-100%) measured during the collection interval.

Collection Interval

30 min

Peg Condition

The average vSTP M2PA Stack Event Queue utilization measured during the collection interval.

Measurement Scope

Site

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.22 vSTP M3UA Usage measurements

3.98.22.1 VstpTxM3uaDataMsg

Measurement ID

21000

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of M3UA user DATA messages sent by vSTP.

Collection Interval

30 min

Peg Condition

Each time a User DATA message is sent.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.22.2 VstpRxM3uaDataMsg

Measurement ID

21001

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of M3UA user DATA messages received by the vSTP.

Collection Interval

30 min

Peg Condition

Each time a User DATA message is received.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.22.3 VstpTxM3uaDataOctets

Measurement ID

21002

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of M3UA DATA sent by the vSTP server. SCTP, IP, and Ethernet headers are not included in the octet counts.

Collection Interval

30 min

Peg Condition

Each time a User DATA message is sent.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.22.4 VstpRxM3uaDataOctets

Measurement ID

21003

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of M3UA DATA received by the vSTP server. SCTP, IP, and Ethernet headers are not included in the octet counts.

Collection Interval

30 min

Peg Condition

Each time a User DATA message is received.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.22.5 VstpTxM3uaNonDataMsg

Measurement ID

21004

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of non-DATA messages sent by the vSTP server, including all non-DATA M3UA messages (such as ASPSM, ASPTM, RROR, SSNM, MGMT)

Collection Interval

30 min

Peg Condition

Each time:

- An ASP-UP-ACK message is sent
- An ASP-DOWN-ACK message is sent
- An ASP-ACTIVE-ACK message is sent
- An ASP-INACTIVE-ACK message is sent
- An ERROR message is sent
- A SSNM message is sent
- A BEAT-ACK message is sent

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.22.6 VstpRxM3uaNonDataMsg

Measurement ID

21005

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of non-DATA messages received by the vSTP server, including all non-DATA M3UA messages (such as ASPSM, ASPTM, RROR, SSNM, MGMT).

Collection Interval

30 min

Peg Condition

Each time:

- An ASP-UP-ACK message is received
- An ASP-DOWN-ACK message is received
- An ASP-ACTIVE-ACK message is received
- An ASP-INACTIVE-ACK message is received
- An ERROR message is received
- A SSNM message is received
- A BEAT-ACK message is received

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.22.7 VstpTxM3uaNonDataOctets

Measurement ID

21006

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of non-DATA octets received by the vSTP server, including all non-DATA M3UA messages (such as ASPSM, ASPTM, RROR, SSNM, MGMT). SCTP, IP, and Ethernet headers are not included in the octet counts.

Collection Interval

30 min

Peg Condition

Each time:

- An ASP-UP-ACK message is sent
- An ASP-DOWN-ACK message is sent
- An ASP-ACTIVE-ACK message is sent
- An ASP-INACTIVE-ACK message is sent
- An ERROR message is sent
- A SSNM message is sent
- A BEAT-ACK message is sent
- A NOTIFY message is sent

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.22.8 VstpRxM3uaNonDataOctets

Measurement ID

21007

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of non-DATA octets received by the vSTP server, including all non-DATA M3UA messages (such as ASPSM, ASPTM, RROR, SSNM, MGMT). SCTP, IP, and Ethernet headers are not included in the octet counts.

Collection Interval

30 min

Peg Condition

Each time:

- An ASP-UP-ACK message is received
- An ASP-DOWN-ACK message is received
- An ASP-ACTIVE-ACK message is received
- An ASP-INACTIVE-ACK message is received
- An ERROR message is received
- A SSNM message is received
- A BEAT-ACK message is received
- A NOTIFY message is received

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.22.9 VstpTxASPUpAck

Measurement ID

21008

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ASP-UP-ACK messages sent by the vSTP server.

Collection Interval

30 min

Peg Condition

Each time an ASP-UP-ACK message is sent.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.22.10 VstpTxASPDownAck

Measurement ID

21009

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ASP-DOWN-ACK messages sent by the vSTP server.

Collection Interval

30 min

Peg Condition

Each time an ASP-DOWN-ACK message is sent.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.22.11 VstpRxASPUp

Measurement ID

21010

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ASP-UP messages received by the vSTP server.

Collection Interval

30 min

Peg Condition

Each time an ASP-UP message is received.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.22.12 VstpRxASPDown

Measurement ID

21011

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ASP-DOWN messages received by the vSTP server.

Collection Interval

30 min

Peg Condition

Each time an ASP-DOWN message is received.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.22.13 VstpRxHeartbeat

Measurement ID

21012

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of beat messages received by the vSTP server.

Collection Interval

30 min

Peg Condition

Each time a beat message is received.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.22.14 VstpTxASPInactiveAck

Measurement ID

21013

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ASP-INACTIVE-ACK messages sent by the vSTP server.

Collection Interval

30 min

Peg Condition

Each time an ASP-INACTIVE-ACK message is sent.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.22.15 VstpTxASPActiveAck

Measurement ID

21014

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ASP-ACTIVE-ACK messages sent by the vSTP server.

Collection Interval

30 min

Peg Condition

Each time an ASP-ACTIVE-ACK message is sent.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.22.16 VstpRxASPActive

Measurement ID

21015

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ASP-ACTIVE messages received by the vSTP server.

Collection Interval

30 min

Peg Condition

Each time an ASP-ACTIVE message is received.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.22.17 VstpRxASPInactive

Measurement ID

21016

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ASP-INACTIVE messages received by the vSTP server.

Collection Interval

30 min

Peg Condition

Each time an ASP-INACTIVE message is received.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.22.18 VstpTxDUNA

Measurement ID

21017

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DUNA messages sent by the vSTP server.

Collection Interval

30 min

Peg Condition

Each time a DUNA message is sent.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.22.19 VstpTxDAVA

Measurement ID

21018

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DAVA messages sent by the vSTP server.

Collection Interval

30 min

Peg Condition

Each time a DAVA message is sent.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.22.20 VstpTxSCON

Measurement ID

21019

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of SCON messages sent by the vSTP server.

Collection Interval

30 min

Peg Condition

Each time a SCON message is sent.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.22.21 VstpTxDUPU

Measurement ID

21020

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DUPU messages sent by the vSTP server.

Collection Interval

30 min

Peg Condition

Each time a DUPU message is sent.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.22.22 VstpTxDRST

Measurement ID

21021

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DRST messages sent by the vSTP server.

Collection Interval

30 min

Peg Condition

Each time a DRST message is sent.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.22.23 VstpRxSCON

Measurement ID

21022

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of SCON messages received by the vSTP server.

Collection Interval

30 min

Peg Condition

Each time a SCON message is received.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.22.24 VstpRxDAUD

Measurement ID

21023

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DAUD messages received by the vSTP server.

Collection Interval

30 min

Peg Condition

Each time a DAUD message is received.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.22.25 VstpTxM3uaError

Measurement ID

21024

Measurement Group

VSTP M3UA Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of M3UA ERROR messages sent by the vSTP server. M3UA ERROR messages are sent to inform the originator of an M3UA message that the message cannot be processed due to some problem with the message syntax or semantics.

Collection Interval

30 min

Peg Condition

Each time a ERROR message is sent.

Measurement Scope

NE, Server

Recovery

1. If all is well, this measurement will have a zero value. In case of a non-zero value, look for event 70057 using **Alarms & Events**, and then **View History**. Event 70057 provides details about the reason for sending the M3UA ERROR message. If the error reason indicates a problem with routing context, verify that the routing context used for the link specified in event 70057 is configured to match between the ASP and the SG.
2. It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.22.26 VstpRxM3uaError

Measurement ID

21025

Measurement Group

VSTP M3UA Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of M3UA ERROR messages received by the vSTP server. M3UA ERROR messages are sent to inform the originator of an M3UA message that the message cannot be processed due to some problem with the message syntax or semantics.

Collection Interval

30 min

Peg Condition

Each time a ERROR message is received.

Measurement Scope

NE, Server

Recovery

1. If all is well, this measurement will have a zero value. In case of a non-zero value, look for event 70058 using **Alarms & Events**, and then **View History**. Event 70058 provides details about the reason for receiving the M3UA ERROR message. If the error reason indicates a problem with routing context, verify that the routing context used for the link specified in event 70058 is configured to match between the ASP and the SG.
2. It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.22.27 VstpTxM3uaNotify

Measurement ID

21026

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of M3UA NOTIFY messages sent by the vSTP server. M3UA NOTIFY messages are sent by the SG to indicate its view of the M3UA AS state.

Collection Interval

30 min

Peg Condition

Each time a NOTIFY message is sent.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.22.28 VstpIngressMsgCount

Measurement ID

21029

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress messages received on the vSTP server.

Collection Interval

30 min

Peg Condition

Each time a number of messages is received on the M3UA.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.22.29 VstpTxHeartbeatAck

Measurement ID

21030

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Heartbeat Ack messages sent by the vSTP server.

Collection Interval

30 min

Peg Condition

Each time a BEAT-ACK message is sent.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.22.30 VstpTxASPUp

Measurement ID

21031

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ASP Up messages sent by the VSTP M3ua client.

Collection Interval

30 min

Peg Condition

When M3UA sends ASP Up message to the peer.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.22.31 VstpTxASPDown

Measurement ID

21032

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ASP Down messages sent by the VSTP M3ua client.

Collection Interval

30 min

Peg Condition

When M3UA sends ASP Down message to the peer.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.22.32 VstpTxHeartbeat

Measurement ID

21033

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Heartbeat messages sent by the VSTP M3ua client.

Collection Interval

30 min

Peg Condition

When M3UA sends Heartbeat message to the peer.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.22.33 VstpTxASPActive

Measurement ID

21034

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ASP Active messages sent by the VSTP M3ua client.

Collection Interval

30 min

Peg Condition

When M3UA sends ASP Active message to the peer.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.22.34 VstpTxASPInactive

Measurement ID

21035

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ASP Inactive messages sent by the VSTP M3ua client.

Collection Interval

30 min

Peg Condition

When M3UA sends ASP Inactive message to the peer.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.22.35 VstpRxDAVA

Measurement ID

21037

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DAVA messages received by the VSTP M3ua Client.

Collection Interval

30 min

Peg Condition

When M3UA receives DAVA(Destination Available) message from the peer.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.22.36 VstpRxDUNA

Measurement ID

21036

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DUNA messages received by the VSTP M3ua Client.

Collection Interval

30 min

Peg Condition

When M3UA receives DUNA(Destination Unavailable) message from the peer

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.22.37 VstpRxDUPU

Measurement ID

21038

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DUPU messages received by the VSTP M3ua Client.

Collection Interval

30 min

Peg Condition

When M3UA receives DUPU(Destination User Part Unavailable) message from the peer.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.22.38 VstpRxDRST

Measurement ID

21039

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DRST messages received by the VSTP M3ua Client.

Collection Interval

30 min

Peg Condition

When M3UA receives DRST(Destination Restricted) message from the peer.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.22.39 VstpTxDAUD

Measurement ID

21040

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of DAUD messages received by the VSTP M3ua Client.

Collection Interval

30 min

Peg Condition

When M3UA sends DAUD(Destination Audit) message to the peer.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.22.40 VstpRxASPUAck

Measurement ID

21041

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ASP Up Ack messages received by the VSTP M3ua client.

Collection Interval

30 min

Peg Condition

When M3UA receives ASP Up Ack message from the peer.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.22.41 VstpRxASPDownAck

Measurement ID

21042

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ASP Down Ack messages receives by the VSTP M3ua client.

Collection Interval

30 min

Peg Condition

When M3UA receives ASP Down Ack message from the peer.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.22.42 VstpRxASPActiveAck

Measurement ID

21043

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ASP Active Ack messages received by the VSTP M3ua client.

Collection Interval

30 min

Peg Condition

When M3UA receives ASP Active Ack message from the peer.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.22.43 VstpRxASPInactiveAck

Measurement ID

21044

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ASP Inactive Ack messages received by the VSTP M3ua client.

Collection Interval

30 min

Peg Condition

When M3UA receives ASP Inactive Ack message from the peer.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.22.44 VstpTxM3uaNotify

Measurement ID

21026

Measurement Group

vSTP M3UA Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of M3UA NOTIFY messages sent by the vSTP server. M3UA NOTIFY messages are sent by the SG to indicate its view of the M3UA AS state.

Collection Interval

30 min

Peg Condition

Each time a NOTIFY message is sent.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.23 vSTP MNP Exception measurements

3.98.23.1 vSTPAtiNpErr

Measurement ID

21680

Measurement Group

vSTP MNP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Total MSUs received by SCCP with an opcode of ATI that did not result in either an ATI-ACK or ATI-NACK response message.

Collection Interval

5 min

Peg Condition

This measurement peg represent the number of incoming ATI query messages resulting in error conditions and is incremented by 1 for each incoming ATI query message that did not result in outbound ATI ACK message.

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.23.2 VstpAtiNpDiscSccpTxFail

Measurement ID

21681

Measurement Group

vSTP MNP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of ATI messages discarded by the LSS because of a send failure to the SCCP layer.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.23.3 VstpAtiNpDiscCATxFail

Measurement ID

21682

Measurement Group

vSTP MNP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of ATI messages discarded by the LSS because of a send failure to the CA layer.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.23.4 VstpAtiNpDiscCADcdFail

Measurement ID

21686

Measurement Group

vSTP MNP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of ATI messages discarded by the LSS due to a decode failure of the CA response message.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.23.5 VstpAtiNpDiscPduFul

Measurement ID

21687

Measurement Group

vSTP MNP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of ATI messages discarded when the PDU pool is exhausted.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.23.6 VstpAtiNpDisclntErr

Measurement ID

21688

Measurement Group

vSTP MNP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of ATI messages discarded due to an internal processing error.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.23.7 VstpAtiNpDbQueryFailUDRConnDown

Measurement ID

21693

Measurement Group

vSTP MNP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of EIR DB Queries not initiated due to the UDR being connectivity down.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.24 vSTP MNP Performance measurements

3.98.24.1 vstpMnpCrd

Measurement ID

21651

Measurement Group

vSTP MNP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of circular routes detected by MNP CRP.

Collection Interval

5 min

Peg Condition

This measurement pegs the number of circular routes detected by MNP CRP.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.24.2 vstpGportSriRecv

Measurement ID

21652

Measurement Group

vSTP MNP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of calls related to received SRI messages.

Collection Interval

5 min

Peg Condition

This measurement pegs the number of calls related to received SRI messages.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.24.3 vstpGportSriReply

Measurement ID

21653

Measurement Group

vSTP MNP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of calls related to received SRI messages that fell through to GPORT service.

Collection Interval

5 min

Peg Condition

This measurement pegs the number of calls related to received SRI messages that fell through to GPORT service.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.24.4 vstpGportSriGtt

Measurement ID

21654

Measurement Group

vSTP MNP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of calls related to received SRI messages that fell through to GTT due to no match.

Collection Interval

5 min

Peg Condition

This measurement pegs the number of calls related to received SRI messages that fell through to GTT due to no match.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.24.5 vstpGportSriErr

Measurement ID

21655

Measurement Group

vSTP MNP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of call related messages that cause an error response message.

Collection Interval

5 min

Peg Condition

This measurement pegs the number of call related messages that cause an error response message.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.24.6 vstpGportSriSmRcv

Measurement ID

21656

Measurement Group

vSTP MNP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of SRI_SM messages received.

Collection Interval

5 min

Peg Condition

This measurement pegs the number of SRI_SM messages received.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.24.7 vstpGportSriSmRep

Measurement ID

21657

Measurement Group

vSTP MNP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of SRI_SM messages resulting in SRI_SM_ACK or SRI_SM_NACK.

Collection Interval

5 min

Peg Condition

This measurement pegs the number of SRI_SM messages resulting in SRI_SM_ACK or SRI_SM_NACK.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.24.8 vstpGportSriSmErr

Measurement ID

21658

Measurement Group

vSTP MNP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of SRI_SM messages resulting in error.

Collection Interval

5 min

Peg Condition

This measurement pegs the number of SRI_SM messages resulting in error.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.24.9 vstpGportNonCallGtt

Measurement ID

21660

Measurement Group

vSTP MNP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of on-call related messages that fell through to GTT.

Collection Interval

5 min

Peg Condition

This measurement pegs the number of on-call related messages that fell through to GTT.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.24.10 VstpMnpCAQueryProcessMax

Measurement ID

21664

Measurement Group

vSTP MNP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

CA peak times to send a query and receive a response from UDR.

Collection Interval

5 min

Peg Condition

This measurement returns the CA peak times to send a query and receive a response from UDR.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.24.11 VstpMnpCAQueryProcessAvg

Measurement ID

21665

Measurement Group

vSTP MNP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

CA average times to send a query and receive a response from UDR.

Collection Interval

5 min

Peg Condition

This measurement returns the CA average times to send a query and receive a response from UDR.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.24.12 VstpMnpRxRatePeak

Measurement ID

21671

Measurement Group

vSTP MNP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak Rx messages by MNP application.

Collection Interval

5 min

Peg Condition

This measurement is pegs the peak Rx messages by MNP application.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.24.13 VstpMnpRxRateAvg

Measurement ID

21672

Measurement Group

vSTP MNP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average Rx messages by MNP application.

Collection Interval

5 min

Peg Condition

This measurement is pegs the average Rx messages by MNP application.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.24.14 VstpMnpTxRatePeak

Measurement ID

21673

Measurement Group

vSTP MNP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak Tx messages by MNP application.

Collection Interval

5 min

Peg Condition

This measurement is pegs the peak Tx messages by MNP application.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.24.15 VstpMnpTxRateAvg

Measurement ID

21674

Measurement Group

vSTP MNP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average Tx messages by MNP application.

Collection Interval

5 min

Peg Condition

This measurement is pegs the average Tx messages by MNP application.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.24.16 vSTPAtiNpMsgRecv

Measurement ID

21678

Measurement Group

vSTP MNP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total number of ATI query messages received by SCCP.

Collection Interval

5 min

Peg Condition

This measurement pegs the total number of ATI query messages received by SCCP.

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.24.17 VstpAtiNpAckTx

Measurement ID

21679

Measurement Group

vSTP MNP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total number of ATI response messages received by SCCP.

Collection Interval

5 min

Peg Condition

This measurement pegs the total number of ATI response messages received by SCCP.

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.24.18 VstpAtiNpRxRatePeak

Measurement ID

21681

Measurement Group

vSTP MNP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak number of Rx messages received by the ATINP application.

Collection Interval

5 min

Peg Condition

The maximum Ingress ATI query Message Rate (messages per second) sample taken during the collection interval.

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.24.19 VstpAtiNpRxRateAvg

Measurement ID

21682

Measurement Group

vSTP MNP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average number of Rx messages received by the ATINP application.

Collection Interval

5 min

Peg Condition

The average of all Ingress ATI Query Message Rate taken during the collection interval.

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.24.20 VstpAtiNpCAQueryProcessMax

Measurement ID

21683

Measurement Group

vSTP MNP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

Peak time by CA to send a query and receive the response from UDR.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.24.21 VstpAtiNpCAQueryProcessAvg

Measurement ID

21684

Measurement Group

vSTP MNP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

Average time by CA to send a query and receive the response from UDR.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.24.22 VstpAtiNpCAQueryProcesTime

Measurement ID

21685

Measurement Group

vSTP MNP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Time required by CA to send a query and receive the response from UDR.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.24.23 VstpInpCirRouteDetected

Measurement ID

21685

Measurement Group

vSTP MNP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of circular routes detected by INPQS.

Collection Interval

5 min

Peg Condition

When INPQS detects a circular route.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.24.24 VstpInpSuccessReply

Measurement ID

21686

Measurement Group

vSTP MNP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of INP successful replies.

Collection Interval

5 min

Peg Condition

This measurement pegs the number of INP successful replies.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.24.25 VstpInpDiscardQueriesNoReply

Measurement ID

21688

Measurement Group

vSTP MNP PeException

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of circular routes detected by INPQS.

Collection Interval

5 min

Peg Condition

This measurement pegs the number of circular routes detected by INPQS.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.24.26 VstpInpQueryReceived

Measurement ID

21689

Measurement Group

vSTP MNP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

INP query received.

Collection Interval

5 min

Peg Condition

This measurement is pegs the number when an INP query is received.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.24.27 VstpAtiNpTxRatePeak

Measurement ID

21691

Measurement Group

vSTP MNP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak Tx messages received by the ATINP application.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.24.28 VstpAtiNpTxRateAvg

Measurement ID

21692

Measurement Group

vSTP MNP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average Tx messages received by the ATINP application.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.24.29 VstpAtiNpRxRatePeak

Measurement ID

21681

Measurement Group

vSTP MNP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak Rx messages by the ATINP application.

Collection Interval

5 min

Peg Condition

This measurement is pegs the number of peak Rx messages by the ATINP application.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.24.30 VstpAtiNpRxRateAvg

Measurement ID

21682

Measurement Group

vSTP MNP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The average Rx messages by the ATINP application.

Collection Interval

5 min

Peg Condition

This measurement is pegs the number of average Rx messages by ATINP application.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.25 vSTP MOSMS Performance measurements

3.98.25.1 VstpSccpMoSmsSegErr

Measurement ID

21775

Measurement Group

VSTP MOSMS Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of TC_Continue messages discarded by the MO SMS services.

Collection Interval

30 min

Peg Condition

TC_Continue messages discarded by the MO SMS services.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.25.2 VstpSccpMoSmsSegOk

Measurement ID

21774

Measurement Group

VSTP MOSMS Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of TC_Continue messages successfully relayed by the MO SMS services.

Collection Interval

30 min

Peg Condition

TC_Continue messages successfully relayed by the MO SMS services.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.25.3 VstpSmsMogErr

Measurement ID

21773

Measurement Group

VSTP MOSMS Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

No of MO_SMS leading to error.

Collection Interval

30 min

Peg Condition

Messages unable to be modified by MOSMS due to error cases.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.25.4 VstpSmsMogRecv

Measurement ID

21772

Measurement Group

VSTP MOSMS Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

No of MO_SMS leading to modified MO_SMS.

Collection Interval

30 min

Peg Condition

message successfully modified by MOSMS.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.26 vSTP MTP2 Performance measurements

3.98.26.1 VstpMtp2LnkOutageDuration

Measurement ID

21800

Measurement Group

VSTP MTP2 Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

Duration of Link Unavailable Total time (in seconds).

Collection Interval

5 min

Peg Condition

Duration of Link Unavailable Total time.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.26.2 VstpMtp2LnkAvailableDuration

Measurement ID

21804

Measurement Group

VSTP MTP2 Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The total time the link was available to MTP level 3 (in seconds).

Collection Interval

5 min

Peg Condition

The total time the link was available to MTP level 3.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.26.3 VstpMtp2RxLnkMSUOctets

Measurement ID

21805

Measurement Group

VSTP MTP2 Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The total number of MSU Octets Received.

Collection Interval

5 min

Peg Condition

When MSU Octet is received.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.26.4 VstpMtp2TxLnkMSUOctets

Measurement ID

21807

Measurement Group

VSTP MTP2 Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The total number of MSU Octets Transmitted.

Collection Interval

5 min

Peg Condition

When MSU Octets are transmitted.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.26.5 VstpMtp2RxLnkMSUOctetsForGTT

Measurement ID

21806

Measurement Group

VSTP MTP2 Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The total number of MSUs Octets Received for MSUs Requiring GTT.

Collection Interval

5 min

Peg Condition

When MSUs Octets Received for MSUs Requiring GTT.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.26.6 VstpMtp2RxLnkMSU

Measurement ID

21812

Measurement Group

VSTP MTP2 Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The total number of MSUs Received.

Collection Interval

5 min

Peg Condition

When MSU is Received.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.26.7 VstpMtp2RxLnkMSUForGTT

Measurement ID

21813

Measurement Group

VSTP MTP2 Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The total number of MSUs Received for MSUs Requiring GTT.

Collection Interval

5 min

Peg Condition

When MSUs Received for MSUs Requiring GTT.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.26.8 VstpMtp2TxLnkMSU

Measurement ID

21814

Measurement Group

VSTP MTP2 Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

MSUs transmitted.

Collection Interval

5 min

Peg Condition

When MSU is transmitted.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.26.9 VstpMtp2RetTxLnkMSU

Measurement ID

21815

Measurement Group

VSTP MTP2 Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

MSUs Retransmitted.

Collection Interval

5 min

Peg Condition

When MSU is retransmitted.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.26.10 VstpMtp2LnkMaintUsage

Measurement ID

21816

Measurement Group

VSTP MTP2 Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The total time the link was manually made unavailable to MTP level 3.

Collection Interval

5 min

Peg Condition

When link is administratively disabled by user.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.26.11 VstpMtp2LnkCO

Measurement ID

21821

Measurement Group

VSTP MTP2 Performance

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The number of times that a changeover procedure was used to divert traffic.

Collection Interval

5 min

Peg Condition

When changeover procedure was used to divert traffic.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.27 vSTP MTP2 Exception measurements

3.98.27.1 VstpMtp2OOSDuration

Measurement ID

21823

Measurement Group

VSTP MTP2 Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The cumulative duration of all link failures.

Collection Interval

5 min

Peg Condition

The cumulative duration of all link failures.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.27.2 VstpMtp2RxLnkMSUError

Measurement ID

21828

Measurement Group

VSTP MTP2 Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Message signal Units received in error.

Collection Interval

5 min

Peg Condition

When Message signal Units received with error.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.27.3 VstpMtp2LnkOOSDueToInvalidBSN

Measurement ID

21829

Measurement Group

VSTP MTP2 Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Signaling Link Failures Due to Abnormal FIB/BSN.

Collection Interval

5 min

Peg Condition

When Signaling Link Fails Due to Abnormal FIB/BSN.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.27.4 VstpMtp2LnkOOSDueToDelayedAck

Measurement ID

21830

Measurement Group

VSTP MTP2 Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Signaling Link Failures Due to Excessive Delay of Acknowledgment.

Collection Interval

5 min

Peg Condition

When Signaling Link Fails Due to Excessive Delay of Acknowledgment.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.27.5 VstpMtp2LnkOOSDueToExcessErrRate

Measurement ID

21832

Measurement Group

VSTP MTP2 Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Signaling Link Failures due to Excessive Error Rate.

Collection Interval

5 min

Peg Condition

When Signaling Link Fails due to Excessive Error Rate.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.27.6 VstpMtp2LnkOOSDueToExcessCongDuration

Measurement ID

21831

Measurement Group

VSTP MTP2 Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Signaling Link Failures due to Excessive Duration of Congestion.

Collection Interval

5 min

Peg Condition

When Signaling Link Fails due to Excessive Duration of Congestion.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.27.7 VstpMtp2Priority0MsuDiscarded

Measurement ID

21808

Measurement Group

VSTP MTP2 Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

For ANSI links: Priority 0 - Total number of MSUs Discarded due to congestion.

Collection Interval

5 min

Peg Condition

For ANSI links: Priority 0 - When MSUs are discarded due to congestion.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.27.8 VstpMtp2Priority1MsuDiscarded

Measurement ID

21809

Measurement Group

VSTP MTP2 Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

For ANSI links: Priority 1 -Total number of MSUs Discarded due to congestion.

Collection Interval

5 min

Peg Condition

For ANSI links: Priority 1 - When MSUs are discarded due to congestion.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.27.9 VstpMtp2Priority2MsuDiscarded

Measurement ID

21810

Measurement Group

VSTP MTP2 Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

For ANSI links: Priority 2 -Total number of MSUs Discarded due to congestion.

Collection Interval

5 min

Peg Condition

For ANSI links: Priority 2 - When MSUs are discarded due to congestion.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.27.10 VstpMtp2Priority3MsuDiscarded

Measurement ID

21811

Measurement Group

VSTP MTP2 Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

For ANSI links: Priority 3-Total number of MSUs Discarded due to congestion.

Collection Interval

5 min

Peg Condition

For ANSI links: Priority 3- When MSUs are discarded due to congestion.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.27.11 VstpMtp2LnkTotalUnAvailableDuration

Measurement ID

21841

Measurement Group

VSTP MTP2 Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The total time a link was unavailable to MTP level 3 for any reason.

Collection Interval

5 min

Peg Condition

When link was unavailable to MTP level 3 for any reason.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.27.12 VstpMtp2LnkTotalActiveDuration

Measurement ID

21840

Measurement Group

VSTP MTP2 Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

Total time the link is active and transmitting MSUs.

Collection Interval

5 min

Peg Condition

when link is active and transmitting MSUs.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.27.13 VstpMtp2RxlkMSUInError

Measurement ID

21839

Measurement Group

VSTP MTP2 Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Signal Units Received In Error.

Collection Interval

5 min

Peg Condition

When Signal Units Received In Error.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.27.14 VstpMtp2LnkForcedRetDueToPCR

Measurement ID

21838

Measurement Group

VSTP MTP2 Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The total number of forced re-transmissions when PCR is used.

Collection Interval

5 min

Peg Condition

Forced re-transmissions of MSU when PCR is used.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.27.15 VstpMtp2LnkTotalOutage

Measurement ID

21835

Measurement Group

VSTP MTP2 Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

Cumulative total of all link failures.

Collection Interval

5 min

Peg Condition

Cumulative total of all link failures.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.27.16 VstpMtp2LnkNegativeAcks

Measurement ID

21834

Measurement Group

VSTP MTP2 Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Negative Acknowledgments Received.

Collection Interval

5 min

Peg Condition

When Negative Acknowledgments Received

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.27.17 VstpMtp2LnkRPODuration

Measurement ID

21824

Measurement Group

VSTP MTP2 Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

Duration of Far-End Processor Outage.

Collection Interval

5 min

Peg Condition

Time duration for which link was unavailable due to remote processor outage.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.27.18 VstpMtp2LnkCumlInhibitDuration

Measurement ID

21826

Measurement Group

VSTP MTP2 Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The cumulative duration that a link was inhibited at the local or far-end.

Collection Interval

5 min

Peg Condition

When link becomes remote inhibit the peg timer duration will start.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.27.19 VstpLnkRemoteInhibit

Measurement ID

21827

Measurement Group

VSTP MTP3 Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The number of times a link was unavailable to MTP level 3 because it was remotely inhibited.

Collection Interval

5 min

Peg Condition

When link becomes remote inhibit the peg counter will increment by 1.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.27.20 VstpMtp2LnkTotalRPOCount

Measurement ID

21836

Measurement Group

VSTP MTP2 Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

Number of Far-End Processor Outages.

Collection Interval

5 min

Peg Condition

Number of times RPO message received from far end.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.27.21 VstpMtp2StackQueueFull

Measurement ID

21963

Measurement Group

VSTP MTP2 Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The number of ingress Mtp2 messages that were discarded because the VSTP Mtp2 Stack Event Queue was full.

Collection Interval

5 min

Peg Condition

When link was unavailable to MTP level 3 for any reason.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.28 vSTP MTP3 Exception measurements

3.98.28.1 VstpTxM3RLDestUnknown

Measurement ID

21250

Measurement Group

vSTP MTP3 Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of egress messages M3RL discarded because no routing information exists for the RSP/Destination.

Collection Interval

5 min

Peg Condition

Each time a message is discarded because RSP is not configured.

Measurement Scope

NE, Server

Recovery

1. This value provides a measure of how many egress messages M3RL discarded because the RSP/Destination was unknown. Because SCCP and M3RL share RSP/Destination routing information, this type of failure only occurs due to a transient inconsistency between SCCP and M3RL, such as RSP/Destination was deleted after SCCP queued the message to M3UA.
2. If a high number of these errors occur, then an internal routing table problem exists.
3. It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.28.2 VstpTxM3RLDestUnavail

Measurement ID

21251

Measurement Group

vSTP MTP3 Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of egress messages M3RL discarded because the RSP/Destination was unavailable.

Collection Interval

5 min

Peg Condition

Each time a message is discarded because no route exists for RSP.

Measurement Scope

NE, Server

Recovery

- This value provides a measure of how many egress messages M3RL discarded because the RSP/Destination was unavailable. The RSP/Destination can be unavailable when the

request is received from the User Part or while M3RL is buffering messages for a rerouting or changeover/changeback procedure.

3.98.28.3 VstpTxM3RLDestCong

Measurement ID

21252

Measurement Group

vSTP MTP3 Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of egress messages M3RL discarded because the RSP/Destination's congestion level was higher than the message's priority.

Collection Interval

5 min

Peg Condition

Each time a message is discarded because RSP/Destination's congestion level was higher than the message's priority.

Measurement Scope

NE, Server

Recovery

- This value provides a measure of how many egress messages M3RL discarded because the RSP/Destination was higher than the message's priority. network Management messages have the highest message priority. User Part message priorities are determined by the SCCP layer.

3.98.28.4 VstpTxM3RLBufOverflow

Measurement ID

21253

Measurement Group

vSTP MTP3 Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of egress messages M3RL discarded because of an internal buffer overflow.

Collection Interval

5 min

Peg Condition

Each time a message is discarded because:

- RSP/Destination buffer overflow
- Linkset buffer overflow
- M3UA event queue overflow

Measurement Scope

NE, Server

Recovery

1. This value provides a measure of how many egress messages M3RL discarded because of an internal buffer overflow. This should never occur, but may be caused by an unusually higher setting of either a T1, T3, or T6 time value. The default for these values is set 60ms, but set as high as 2000ms by the user.
2. The current M3RL timer values can be viewed and modified at **SS7/Sigratn**, and then **Configuration**, and then **MTP3 Options**. An internal overflow condition may occur if the IP network is unstable causing M3RL to invoke multiple changeover/changeback procedures as links fail and recover.
3. Verify that IP network connectivity exists between the vSTP server and the adjacent servers.
4. Check the event history logs for addition vSTP events or alarms from this vSTP server.
5. Verify that the adjacent server is not under maintenance.
6. It is recommended to contact [My Oracle Support](#) for assistance if needed

3.98.28.5 VstpTxM3RLInvalidDPC

Measurement ID

21255

Measurement Group

vSTP MTP3 Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress messages M3RL discarded because the DPC was not the True Point Code (TPC) or Capability Point Code (CPC) configured for the vSTP.

Collection Interval

5 min

Peg Condition

Each time a message is discarded because the message is pegged each time DPC is not the true point code.

Measurement Scope

NE, Server

Recovery

- This value provides a measure of how many ingress messages M3RL are discarded because the DPC was not the True Point Code (TPC) or Capability Point Code (CPC) configured for the vSTP. If this measurement is large, it may indicate a routing inconsistency between STP/SG and the vSTP.

3.98.28.6 VstpTxM3RLInvalidSI

Measurement ID

21256

Measurement Group

vSTP MTP3 Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress messages M3RL discarded because the Service Indicator received was not 0 (SIM) or 3 (SCCP).

Collection Interval

5 min

Peg Condition

Each time a message is discarded because the message is pegged when the SI value was not 0 or 3.

Measurement Scope

NE, Server

Recovery

- This value provides a measure of how many ingress messages M3RL are discarded because the Service Indicator received was not 0 (SIM) or 3 (SCCP). This type of failure should never occur and usually indicates that the routing STP/SG or originator of the message is incorrect.

3.98.28.7 VstpTxM3RLInvalidNI

Measurement ID

21257

Measurement Group

vSTP MTP3 Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress messages M3RL discarded because the Network Indicator received was not the same value configured for the vSTP.

Collection Interval

5 min

Peg Condition

Each time a message is discarded because the message is pegged when NI is not matched.

Measurement Scope

NE, Server

Recovery

- This value provides a measure of how many ingress messages M3RL are discarded because the Network Indicator received was the same value configured for the vSTP. If this measurement is large, it may indicate a routing inconsistency between STP/SG and the vSTP.

3.98.28.8 VstpRxMSUScrDiscard

Measurement ID

21302

Measurement Group

vSTP MTP3 Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of MSU discarded due to MTP screening.

Collection Interval

5 min

Peg Condition

When the number of MSUs discarded due to MTP screening.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.28.9 VstpRxnksetMSUScrDiscard

Measurement ID

21303

Measurement Group

vSTP MTP3 Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of received MSUs discarded due to MTP screening on a linkset.

Collection Interval

5 min

Peg Condition

When the number of received MSUs discarded due to MTP screening on a linkset.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.28.10 VstpM3RLStackQueueFull

Measurement ID

21426

Measurement Group

VSTP M2PA Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of messages that were discarded because the vSTP M3RL Stack Event Queue was full.

Collection Interval

5 min

Peg Condition

The number of messages that were discarded because the vSTP M3RL Stack Event Queue was full.

Measurement Scope

NE, Server

Recovery

1. This measurement is primarily intended to assist in evaluating the need for additional vSTP processing capacity at a Network Element.
2. If both the peak and average measurement for multiple vSTPs within a Network Element are consistently near the recommended maximum engineered capacity of a vSTP over several collection intervals, then the number of vSTPs in the Network Element may need to be increased.
3. If the peak and average for an individual vSTP is significantly different than other vSTPs in the same Network Element, then a vSTP-specific hardware, software, or configuration problem may exist.
4. It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.28.11 VstpM3RLNetMgtQueueFull

Measurement ID

21429

Measurement Group

vSTP MTP3 Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of vSTP M3RL network management messages (SI=0) that were discarded because the M3RL Network Management Event Queue was full.

Collection Interval

5 min

Peg Condition

The number of M3RL network management messages (SI=0) that were discarded because the M3RL Network Management Event Queue was full.

Measurement Scope

NE, Server

Recovery

1. This measurement is primarily intended to assist in evaluating the need for additional vSTP processing capacity at a Network Element.
2. If both the peak and average measurement for multiple vSTPs within a Network Element are consistently near the recommended maximum engineered capacity of a vSTP over several collection intervals, then the number of vSTPs in the Network Element may need to be increased.

3. If the peak and average for an individual vSTP is significantly different than other vSTPs in the same Network Element, then a vSTP-specific hardware, software, or configuration problem may exist.
4. It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.28.12 VstpM3UAShieldQueueFull

Measurement ID

21432

Measurement Group

VSTP M3UA Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of messages that were discarded because the vSTP M3UA Stack Event Queue was full.

Collection Interval

30 min

Peg Condition

The number of messages that were discarded because the M3UA Stack Event Queue was full.

Measurement Scope

NE, Server

Recovery

1. This measurement is primarily intended to assist in evaluating the need for additional vSTP processing capacity at a Network Element.
2. If both the peak and average measurement for multiple vSTPs within a Network Element are consistently near the recommended maximum engineered capacity of a vSTP over several collection intervals, then the number of vSTPs in the Network Element may need to be increased.
3. If the peak and average for an individual vSTP is significantly different than other vSTPs in the same Network Element, then a vSTP-specific hardware, software, or configuration problem may exist.
4. It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.28.13 VstpMSULossDueToECO

Measurement ID

21475

Measurement Group

vSTP MTP3 Exception

Measurement Type

Simple

Measurement Dimension

Arrayed per link

Description

Number of MSUs loss due to an Emergency Change Over on the link.

Collection Interval

5 min

Peg Condition

This measurement is incremented when the number of MSUs are loss due to an Emergency Change Over on the link.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.28.14 vstpGportNonCallRelay

Measurement ID

21659

Measurement Group

vSTP MNP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of non-call related messages relayed by G-Port.

Collection Interval

5 min

Peg Condition

This measurement pegs the number of non-call related messages relayed by G-Port.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.28.15 VstpMnpDiscQueueFull

Measurement ID

21661

Measurement Group

vSTP MNP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of messages LSS discards because it failed to send MSUs to the SCCP layer.

Collection Interval

5 min

Peg Condition

This measurement pegs the number of messages LSS discards because it failed to send MSUs to the SCCP layer.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.28.16 VstpMnpDiscSccpTxFail

Measurement ID

21662

Measurement Group

vSTP MNP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of messages LSS discards because send fails to the SCCP layer.

Collection Interval

5 min

Peg Condition

This measurement pegs the number of messages LSS discards because send fails to the SCCP layer.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.28.17 VstpMnpDiscCATxFail

Measurement ID

21663

Measurement Group

vSTP MNP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of messages LSS discards because send fails to the CA layer.

Collection Interval

5 min

Peg Condition

This measurement pegs the number of messages LSS discards because send fails to the CA layer.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.28.18 VstpMnpCATimeOut

Measurement ID

21667

Measurement Group

vSTP MNP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of messages for which CA query to UDR timed out.

Collection Interval

5 min

Peg Condition

This measurement pegs the number of Number of messages for which CA query to UDR timed out.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.28.19 VstpMnpDiscCADcdFail

Measurement ID

21668

Measurement Group

vSTP MNP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of messages LSS discard due to decode failed of CA response message.

Collection Interval

5 min

Peg Condition

This measurement pegs the number of messages LSS discard due to decode failed of CA response message.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.28.20 VstpMnpDiscPduFul

Measurement ID

21669

Measurement Group

vSTP MNP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of messages discarded when the PDU pool is exhausted.

Collection Interval

5 min

Peg Condition

This measurement pegs the number of messages discarded when the PDU pool is exhausted.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.28.21 VstpMnpDisclntErr

Measurement ID

21670

Measurement Group

vSTP MNP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of messages discarded due to an internal processing error.

Collection Interval

5 min

Peg Condition

This measurement is pegs the number of messages discarded due to an internal processing error.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.28.22 VstpMnpDbLookupFail

Measurement ID

21675

Measurement Group

vSTP MNP Exception

Measurement Type

Max

Measurement Dimension

Single

Description

Number of IMEIs not found in the MNP database.

Collection Interval

5 min

Peg Condition

This measurement is pegs the number of IMEIs not found in the MNP database.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.28.23 VstpUdrDbQueryFailUDRConnDown

Measurement ID

21676

Measurement Group

vSTP MNP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of UDR database queries not initiated due to UDR connectivity down.

Collection Interval

5 min

Peg Condition

This measurement is pegs the number of UDR database queries not initiated due to UDR connectivity down.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.28.24 VstpAtiNpErr

Measurement ID

21680

Measurement Group

vSTP MNP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of ATI query messages received without any response sent by SCCP.

Collection Interval

5 min

Peg Condition

This measurement is pegs the number of ATI query messages received without any response sent by SCCP.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.28.25 VstpInpErrReplies

Measurement ID

21687

Measurement Group

vSTP MNP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of INP error replies with TCAP error code.

Collection Interval

5 min

Peg Condition

This measurement pegs the number of INP error replies with TCAP error code.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.28.26 VstpMtp3LoopDetectionMsuDiscarded

Measurement ID

21701

Measurement Group

vSTP MTP3 Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The total number of messages discarded due to MTP circular loop detection.

Collection Interval

5 min

Peg Condition

When the number of messages discarded due to a MTP circular loop detection.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.28.27 VstpMsuDiscardDisallowedOpc

Measurement ID

21736

Measurement Group

VSTP MTP3 Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of MSUs discarded due to disallowed OPC while MTP3 screening.

Collection Interval

5 min

Peg Condition

Pegged when an MSU is discarded due to disallowed OPC while MTP3 screening.

Measurement Scope

NE, Server

Recovery

- If the problem persists, contact [My Oracle Support](#).

3.98.28.28 VstpMsuDiscardDisallowedDpc

Measurement ID

21737

Measurement Group

VSTP MTP3 Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of MSUs discarded due disallowed DPC while MTP3 screening.

Collection Interval

5 min

Peg Condition

Pegged when an MSU is discarded due disallowed DPC while MTP3 screening.

Measurement Scope

NE, Server

Recovery

- If the problem persists, contact [My Oracle Support](#).

3.98.28.29 VstpMsuDiscardDisallowedSi

Measurement ID

21738

Measurement Group

VSTP MTP3 Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of MSUs discarded due to disallowed service indicator while MTP3 screening.

Collection Interval

5 min

Peg Condition

Pegged when an MSU is discarded due to disallowed service indicator while MTP3 screening.

Measurement Scope

NE, Server

Recovery

- If the problem persists, contact [My Oracle Support](#).

3.98.28.30 VstpLnkCumlInhibitDuration

Measurement ID

21826

Measurement Group

vSTP MTP3 Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The cumulative duration that a link was inhibited at the far-end.

Collection Interval

5 min

Peg Condition

Measurement Scope

NE, Server

Recovery

1. If a high number of these errors occur, then an internal routing table problem exists.
2. It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.28.31 VstpLnkRemoteInhibit

Measurement ID

21827

Measurement Group

VSTP MTP3 Exception

Measurement Type

Simple

Measurement Dimension

Arrayed by Connection ID

Description

The number of times a link was unavailable to MTP level 3 because it was remotely inhibited.

Collection Interval

5 min

Peg Condition

When link becomes remote inhibit the peg counter will increment by 1.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.29 vSTP MTP3 Performance measurements

3.98.29.1 VstpTxM3RLDataMsgs

Measurement ID

21254

Measurement Group

vSTP MTP3 Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of egress M3RL DATA messages (at M3RL > M3UA interface). This measurement includes SCMG messages (which are DATA to the M3RL later), but does not include SNM messages.

Collection Interval

5 min

Peg Condition

Each time M3RL sends a message to M3UA.

Measurement Scope

NE, Server

Recovery

- This value provides a measure of how many egress messages M3RL is processing from the network.

3.98.29.2 VstpRxM3RLBufOverflow

Measurement ID

21258

Measurement Group

vSTP MTP3 Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress messages M3RL discarded because of an internal buffer overflow.

Collection Interval

5 min

Peg Condition

Each time a message is discarded because the message is pegged when internal buffer is overflow.

Measurement Scope

NE, Server

Recovery

- This only occurs when vSTP is experiencing severe overload conditions and SCCP is unable to service its event queue.

3.98.29.3 VstpRxM3RLDataMsgs

Measurement ID

21259

Measurement Group

vSTP MTP3 Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress M3RL DATA messages (at M3UA/M2PA > M3RL interface). This measurement includes SCMG messages (which are DATA to the M3RL later), but does not include SSNM messages.

Collection Interval

5 min

Peg Condition

Each time M3UA/M2PA sent a message to M3RL.

Measurement Scope

NE, Server

Recovery

- None

3.98.29.4 VstpM3RLChangeOver

Measurement ID

21261

Measurement Group

vSTP MTP3 Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of changeover messages received on the M3RL.

Collection Interval

5 min

Peg Condition

Each time a link is going down.

Measurement Scope

NE, Server

Recovery

- None

3.98.29.5 VstpM3RLChangeBack

Measurement ID

21262

Measurement Group

vSTP MTP3 Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of changeback messages received on the M3RL.

Collection Interval

5 min

Peg Condition

Each time a link is going up.

Measurement Scope

NE, Server

Recovery

- None

3.98.29.6 VstpM3rIMsgToMTP3User

Measurement ID

21263

Measurement Group

vSTP MTP3 Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress M3RL DATA messages (at M3UA > SCCP interface) processing from the network. This measurement includes SCMG messages (which are DATA to the M3RL layer), but does not include SSNM messages.

Collection Interval

30 min

Peg Condition

Each time a data message is coming from a lower layer.

Measurement Scope

NE, Server

Recovery

- None

3.98.29.7 VstpM3rlMsgFromMTP3User

Measurement ID

21264

Measurement Group

vSTP MTP3 Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Egress M3RL DATA Messages (at SCCP > M3UA interface). This measurement includes SCMG messages (which are DATA to the M3RL layer), but does not include SSNM messages.

Collection Interval

30 min

Peg Condition

Each time a User Data message is received from SCCP > M3RL > M3UA, which includes SCMG data messages as well.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.29.8 VstpRxScrPerformed

Measurement ID

21300

Measurement Group

vSTP MTP3 Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of MSUs on which MTP screening is performed.

Collection Interval

5 min

Peg Condition

When the number of MSUs on which MTP screen is performed.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.29.9 VstpM3RLStackQueuePeak

Measurement ID

21424

Measurement Group

vSTP MTP3 Performance

Measurement Type

Max

Measurement Dimension

Arrayed

Description

The peak vSTP M3RL Stack Event Queue utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

The maximum M3RL Stack Event Queue utilization sample taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. This measurement is primarily intended to assist in evaluating the need for additional vSTP processing capacity at a Network Element.
2. If both the peak and average measurement for multiple vSTPs within a Network Element are consistently near the recommended maximum engineered capacity of a vSTP over several collection intervals, then the number of vSTPs in the Network Element may need to be increased.
3. If the peak and average for an individual vSTP is significantly different than other vSTPs in the same Network Element, then a vSTP-specific hardware, software, or configuration problem may exist.

4. It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.29.10 VstpM3RLStackQueueAvg

Measurement ID

21425

Measurement Group

vSTP MTP3 Performance

Measurement Type

Average

Measurement Dimension

Arrayed

Description

The average vSTP M3RL Stack Event Queue utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

The average of all vSTP M3RL Stack Event Queue utilization samples taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. This measurement is primarily intended to assist in evaluating the need for additional vSTP processing capacity at a Network Element.
2. If both the peak and average measurement for multiple vSTPs within a Network Element are consistently near the recommended maximum engineered capacity of a vSTP over several collection intervals, then the number of vSTPs in the Network Element may need to be increased.
3. If the peak and average for an individual vSTP is significantly different than other vSTPs in the same Network Element, then a vSTP-specific hardware, software, or configuration problem may exist.
4. It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.29.11 VstpM3RLNetMgtQueuePeak

Measurement ID

21427

Measurement Group

vSTP MTP3 Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak vSTP M3RL Network Management Event Queue utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

The maximum vSTP M3RL Network Management Event Queue utilization sample taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. This measurement is primarily intended to assist in evaluating the need for additional vSTP processing capacity at a Network Element.
2. If both the peak and average measurement for multiple vSTPs within a Network Element are consistently near the recommended maximum engineered capacity of a vSTP over several collection intervals, then the number of vSTPs in the Network Element may need to be increased.
3. If the peak and average for an individual vSTP is significantly different than other vSTPs in the same Network Element, then a vSTP-specific hardware, software, or configuration problem may exist.
4. It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.29.12 VstpM3RLNetMgtQueueAvg

Measurement ID

21428

Measurement Group

vSTP MTP3 Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average vSTP M3RL Network Management Event Queue utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

The average of all vSTP M3RL Network Management Event Queue utilization samples taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. This measurement is primarily intended to assist in evaluating the need for additional vSTP processing capacity at a Network Element.
2. If both the peak and average measurement for multiple vSTPs within a Network Element are consistently near the recommended maximum engineered capacity of a vSTP over several collection intervals, then the number of vSTPs in the Network Element may need to be increased.
3. If the peak and average for an individual vSTP is significantly different than other vSTPs in the same Network Element, then a vSTP-specific hardware, software, or configuration problem may exist.
4. It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.29.13 MtpSccpMsgConverted

Measurement ID

21581

Measurement Group

vSTP MTP3 Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total MTP routed SCCP MSUs successfully converted.

Collection Interval

5 min

Peg Condition

When the MTP routed SCCP MSUs successfully convert.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.29.14 GttSccpConverted

Measurement ID

21582

Measurement Group

vSTP MTP3 Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total GT routed SCCP MSUs converted.

Collection Interval

5 min

Peg Condition

When the total GT routed SCCP MSUs convert.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.29.15 MtpUserDfltCnv

Measurement ID

21584

Measurement Group

vSTP MTP3 Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total MTP routed messages successfully converted which has SIO greater than 3.

Collection Interval

5 min

Peg Condition

When the total MTP routed messages are successfully converted which has SIO greater than 3.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.29.16 MtpNetMgmtCnv

Measurement ID

21585

Measurement Group

vSTP MTP3 Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Total MTP routed network management message (for example, TFP, TFA) successfully converted.

Collection Interval

5 min

Peg Condition

When the total MTP routed network management message are successfully converted.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.29.17 VstpRxMSUTif

Measurement ID

21945

Measurement Group

vSTP MTP3 Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of MSU on which Tif MTP Routed ISUP is performed.

Collection Interval

5 min

Peg Condition

When MTP Routed ISUP is performed on message.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.30 vSTP Performance measurements

3.98.30.1 VstpMnpCrd

Measurement ID

21651

Measurement Group

vSTP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of times the circular route was detected by the MNP CRP.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.30.2 VstpGportSriRecv

Measurement ID

21652

Measurement Group

vSTP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of call related SRI messages received.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.30.3 VstpGportSriReply

Measurement ID

21653

Measurement Group

vSTP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of call related SRI messages that resulted in positive response.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.30.4 VstpGportSriGtt

Measurement ID

21654

Measurement Group

vSTP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of call related SRI messages that fell through to GTT due to no match.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.30.5 VstpGportSriErr

Measurement ID

21655

Measurement Group

vSTP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of call related messages that cause an error response message.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.30.6 VstpGportSriSmRcv

Measurement ID

21656

Measurement Group

vSTP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of SRI_SM message received.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.30.7 VstpGportSriSmRep

Measurement ID

21657

Measurement Group

vSTP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of SRI_SM messages resulting in SRI_SM_ACK or SRI_SM_NACK.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.30.8 VstpGportSriSmErr

Measurement ID

21658

Measurement Group

vSTP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of SRI_SM messages resulting in an error.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.30.9 VstpGportNonCallGtt

Measurement ID

21660

Measurement Group

vSTP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of non-call related messages that fell through to GTT.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.30.10 VstpMnpCAQurProcessMax

Measurement ID

21665

Measurement Group

vSTP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Peak time by CA to send a query and receive the response from UDR.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.30.11 VstpMnpCAQueProcessAvg

Measurement ID

21666

Measurement Group

vSTP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Average time by CA to send a query and receive the response from UDR.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.30.12 VstpMnpCAQueProcesTime

Measurement ID

21667

Measurement Group

vSTP Performance

Measurement Type

Simple

Measurement Dimension

Array

Description

Time required by CA to send a query and receive the response from UDR.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.30.13 VstpMnpRxRatePeak

Measurement ID

21672

Measurement Group

vSTP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The peak number of Rx messages received by the MNP application.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.30.14 VstpMnpRxRateAvg

Measurement ID

21673

Measurement Group

vSTP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The average number of Rx messages received by the MNP application.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.30.15 VstpMnpTxRatePeak

Measurement ID

21674

Measurement Group

vSTP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The peak Tx messages received by the MNP application.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.30.16 VstpMnpTxRateAvg

Measurement ID

21675

Measurement Group

vSTP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The average Tx messages received by the MNP application.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

Server Group

Recovery

- No action necessary.

3.98.31 vSTP SCCP Exception measurements

3.98.31.1 VstpSccpGTTUN0NS

Measurement ID
21201

Measurement Group
vSTP SCCP Exception

Measurement Type
Simple

Measurement Dimension
Single

Description
The total of times that the specified type of translation in an MSU was not supported by the STP.

Collection Interval
30 min

Peg Condition
Each time GTT fails with Diagnostic 0.

Measurement Scope
NE, Server

Recovery

- No action required.

3.98.31.2 VstpSccpGTTUN1NT

Measurement ID
21202

Measurement Group
vSTP SCCP Exception

Measurement Type
Simple

Measurement Dimension
Single

Description
The total of times that the specified type of translation in an MSU was not supported by the STP.

Collection Interval
30 min

Peg Condition

Each time GTT fails with Diagnostic 1.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.31.3 VstpSccpMSSCCPFL

Measurement ID

21203

Measurement Group

vSTP SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of MSUs discarded due to an SCCP routing failure.

Collection Interval

30 min

Peg Condition

Each time an MSU gets discarded due to SCCP routing failure.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.31.4 VstpSccpConvFailed

Measurement ID

21204

Measurement Group

vSTP SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Total GT routed MSUs are discarded due to a conversion failure.

Collection Interval

5 min

Peg Condition

This measurement is pegged when the total GT routed MSUs are discarded due to a conversion failure.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.31.5 VstpSccpSCCPLOOP

Measurement ID

21205

Measurement Group

vSTP SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The total number of times that a GTT translation matched a Point Code in the STP's loopset entries resulting in either a notify or discard of an SCCP message.

Collection Interval

30 min

Peg Condition

Each time a Discard of SCCP Message occurs or a NOTIFY is sent.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.31.6 VstpRxSccpMsgDiscardInvalidSIF

Measurement ID

21212

Measurement Group

vSTP SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of SCCP messages that have been received and discarded because of an invalid SIF (for example, invalid SCCP fields).

Collection Interval

5 min

Peg Condition

This measurement is incremented when SCCP discards the received messages due to invalid SCCP fields.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.31.7 MtpMsuConvFailed

Measurement ID

21583

Measurement Group

vSTP SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Total MSUs discarded due to MTP routed message SCCP or MTP3 conversion failure.

Collection Interval

5 min

Peg Condition

When the total MSUs are discarded due to a MTP routed message SCCP or MTP3 conversion failure.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.31.8 VstpMSUTmulCompGtaNa

Measurement ID

22173

Measurement Group

VSTP SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The total number of TCAP multicomponent messages discarded with whose multicomponent translations are not allowed.

Collection Interval

5 min

Peg Condition

Packet must have TCAP multicomponents.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.31.9 VstpMSUTmulCompMaxExc

Measurement ID

22174

Measurement Group

VSTP SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The total number of TCAP multicomponent messages discarded when number of components are greater than max number of components.

Collection Interval

5 min

Peg Condition

Packet must have TCAP multicomponents.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.31.10 VstpThrottleActionMsgDiscard

Measurement ID

21723

Measurement Group

vSTP MNP Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of messages discarded per GTT Throttle Action.

Collection Interval

5 min

Peg Condition

Whenever number of messages per GTT Throttle action increases across MP's than configured threshold value per GTT Throttle Action.

Measurement Scope

NE, Server

Recovery

- If this problem occurs, it is recommended to contact [My Oracle Support](#).

3.98.31.11 VstpCdpaGttActScpvalDiscard

Measurement ID

21777

Measurement Group

vSTP SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The total number of messages discarded by SCPVAL CdPA GTT action.

Collection Interval

5 min

Peg Condition

Pegged when a message gets discarded by SCPVAL CdPA GTT action.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.31.12 VstpCgpaGttActScpvalDiscard

Measurement ID

21780

Measurement Group

vSTP SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The total number of messages discarded by SCPVAL CgPA GTT action.

Collection Interval

5 min

Peg Condition

Pegged when a message gets discarded by SCPVAL CgPA GTT action.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.31.13 VstpRxSccpReassProcFail

Measurement ID

21902

Measurement Group

vSTP SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of times reassembly procedure failed.

Collection Interval

30 min

Peg Condition

This measurement is pegs number of times reassembly procedure failed.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.31.14 VstpRxSccpSgmntsReassFail

Measurement ID

21905

Measurement Group

vSTP SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of segmented XUDT messages that encountered Reassembly failure due to any errors.

Collection Interval

30 min

Peg Condition

This measurement pegs number of segmented XUDT messages that encountered Reassembly failure due to any errors.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.31.15 VstpSCCPStackQueueFull

Measurement ID

21423

Measurement Group

vSTP SCCP Exception

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of ingress SCCP messages discarded because the vSTP SCCP Stack Event Queue was full.

Collection Interval

30 min

Peg Condition

The number of ingress SCCP messages discarded because the vSTP SCCP Stack Event Queue was full.

Measurement Scope

Site

Recovery

1. This measurement is primarily intended to assist in evaluating the need for additional vSTP processing capacity at a Network Element.
2. If both the peak and average measurement for multiple vSTPs within a Network Element are consistently near the recommended maximum engineered capacity of a vSTP over several collection intervals, then the number of vSTPs in the Network Element may need to be increased.
3. If the peak and average for an individual vSTP is significantly different than other vSTPs in the same Network Element, then a vSTP-specific hardware, software, or configuration problem may exist.
4. It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.31.16 VstpTxSccpSegProcFail

Measurement ID

21907

Measurement Group

vSTP SCCP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of times segmentation procedure failed.

Collection Interval

30 min

Peg Condition

This measurement pegs number of times segmentation procedure failed.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32 vSTP SCCP Performance measurements

3.98.32.1 VstpRxSccpMsg

Measurement ID

21206

Measurement Group

vSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The total number of messages received from M3RL to SCCP including SCMG messages.

Collection Interval

5 min

Peg Condition

This measurement is incremented when SCCP receives data messages including SCMG messages.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.2 VstpRxSccpMsgPeak

Measurement ID

21207

Measurement Group

vSTP SCCP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak number of messages received from M3RL to SCCP including SCMG messages.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.3 VstpRxSccpMsgAvg

Measurement ID

21208

Measurement Group

vSTP SCCP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average number of messages received from M3RL to SCCP including SCMG messages.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.4 VstpTxSccpMsg

Measurement ID

21209

Measurement Group

vSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The total number of messages transmitted from SCCP to M3RL including SCMG messages.

Collection Interval

5 min

Peg Condition

This measurement is incremented when SCCP receives data messages including SCMG messages.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.5 VstpTxSccpMsgPeak

Measurement ID

21210

Measurement Group

vSTP SCCP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak number of messages transmitted from SCCP to M3RL including SCMG messages.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.6 VstpTxSccpMsgAvg

Measurement ID

21211

Measurement Group

vSTP SCCP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average number of messages transmitted from SCCP to M3RL including SCMG messages.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.7 VstpSccpGtmodPerfd

Measurement ID

21213

Measurement Group

vSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The total number of messages on which GT Modification is performed.

Collection Interval

5 min

Peg Condition

When the total number of messages on which GT Modification is performed.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.8 VstpSCCPStackQueuePeak

Measurement ID

21421

Measurement Group

vSTP SCCP Performance

Measurement Type

Max

Measurement Dimension

Arrayed

Description

The peak vSTP SCCP Stack Event Queue utilization (0-100%) measured during the collection interval.

Collection Interval

30 min

Peg Condition

The maximum vSTP SCCP Stack Event Queue utilization sample taken during the collection interval.

Measurement Scope

Site

Recovery

1. This measurement is primarily intended to assist in evaluating the need for additional vSTP processing capacity at a Network Element.
2. If both the peak and average measurement for multiple vSTPs within a Network Element are consistently near the recommended maximum engineered capacity of a vSTP over several collection intervals, then the number of vSTPs in the Network Element may need to be increased.
3. If the peak and average for an individual vSTP is significantly different than other vSTPs in the same Network Element, then a vSTP-specific hardware, software, or configuration problem may exist.
4. It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.32.9 VstpSCCPStackQueueAvg

Measurement ID

21422

Measurement Group

vSTP SCCP Performance

Measurement Type

Average

Measurement Dimension

Arrayed

Description

The average vSTP SCCP Stack Event Queue utilization (0-100%) measured during the collection interval.

Collection Interval

30 min

Peg Condition

The average vSTP SCCP Stack Event Queue utilization sample taken during the collection interval.

Measurement Scope

Site

Recovery

1. This measurement is primarily intended to assist in evaluating the need for additional vSTP processing capacity at a Network Element.
2. If both the peak and average measurement for multiple vSTPs within a Network Element are consistently near the recommended maximum engineered capacity of a vSTP over several collection intervals, then the number of vSTPs in the Network Element may need to be increased.
3. If the peak and average for an individual vSTP is significantly different than other vSTPs in the same Network Element, then a vSTP-specific hardware, software, or configuration problem may exist.
4. It is recommended to contact [My Oracle Support](#) if assistance is needed.

3.98.32.10 VstpTxSccpClass0Msg

Measurement ID

21724

Measurement Group

vSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Sccp Class0 messages transmitted by SCCP Layer.

Collection Interval

5 min

Peg Condition

Pegged when an Sccp Class0 message is transmitted by SCCP Layer.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.11 VstpRxSccpClass0Msg

Measurement ID

21725

Measurement Group

vSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Sccp Class0 messages received by SCCP Layer.

Collection Interval

5 min

Peg Condition

Pegged when an Sccp Class0 message is received by SCCP Layer.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.12 VstpTxSccpClass1Msg

Measurement ID

21726

Measurement Group

vSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Sccp Class1 messages transmitted by SCCP Layer.

Collection Interval

5 min

Peg Condition

Pegged when an Sccp Class1 message is transmitted by SCCP Layer.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.13 VstpRxSccpClass1Msg

Measurement ID

21727

Measurement Group

vSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of Sccp Class1 messages received by SCCP Layer.

Collection Interval

5 min

Peg Condition

Pegged when an Sccp Class1 message is received by SCCP Layer.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.14 VstpTxXudtMsgToMtp3

Measurement ID

21728

Measurement Group

vSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of XUDT messages sent to MTP3.

Collection Interval

5 min

Peg Condition

Pegged when an XUDT message is sent to MTP3.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.15 VstpRxXudtMsgFromMtp3

Measurement ID

21729

Measurement Group

vSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of XUDT messages received from MTP3.

Collection Interval

5 min

Peg Condition

Pegged when an XUDT message is received from MTP3.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.16 VstpTxXudtsMsgFromMtp3

Measurement ID

21730

Measurement Group

vSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of XUDTS messages sent to MTP3.

Collection Interval

5 min

Peg Condition

Pegged when an XUDTS message is sent to MTP3.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.17 VstpRxXudtsMsgFromMtp3

Measurement ID

21731

Measurement Group

vSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of XUDTS messages received from MTP3.

Collection Interval

5 min

Peg Condition

Pegged when an XUDTS message is received from MTP3.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.18 VstpTxUdtMsgToMtp3

Measurement ID

21732

Measurement Group

vSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of UDT messages sent to MTP3.

Collection Interval

5 min

Peg Condition

Pegged when an UDT message is sent to MTP3.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.19 VstpRxUdtMsgFromMtp3

Measurement ID

21733

Measurement Group

vSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of UDT messages received from MTP3.

Collection Interval

5 min

Peg Condition

Pegged when an UDT message is received from MTP3.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.20 VstpTxUdtsMsgToMtp3

Measurement ID

21734

Measurement Group

vSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of UDTS messages sent to MTP3.

Collection Interval

5 min

Peg Condition

Pegged when an UDTS message is sent to MTP3.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.21 VstpRxUdtsMsgFromMtp3

Measurement ID

21735

Measurement Group

vSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of UDTS messages received from MTP3.

Collection Interval

5 min

Peg Condition

Pegged when an UDTs message is received from MTP3.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.22 VstpCdpaGttActScpvalTotal

Measurement ID

21776

Measurement Group

vSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The total number of messages that successfully pass SCPVAL CdPA GTT action.

Collection Interval

5 min

Peg Condition

Pegged when a message successfully passes SCPVAL CdPA GTT action.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.23 VstpCdpaGttActScpvalNotApplied

Measurement ID

21778

Measurement Group

vSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The total number of messages where validation was not applied by SCPVAL CdPA GTT action.

(For example: In cases of GTI=0 or in cases where any other message apart from MO-FSM/MT-FSM was received.)

Collection Interval

5 min

Peg Condition

Pegged when validation is not applied on a message by SCPVAL CdPA GTT action.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.24 VstpCgpaGttActScpvalTotal

Measurement ID

21779

Measurement Group

vSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The total number of messages that successfully pass SCPVAL CgPA GTT action.

Collection Interval

5 min

Peg Condition

Pegged when a message successfully passes SCPVAL CgPA GTT action.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.25 VstpCgpaGttActScpvalNotApplied

Measurement ID

21781

Measurement Group

vSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The total number of messages where validation was not applied by SCPVAL CgPA GTT action.

(For example: In cases of GTI=0 or in cases where any other message apart from MO-FSM/MT-FSM was received.)

Collection Interval

5 min

Peg Condition

Pegged when validation is not applied on a message by SCPVAL CgPA GTT action.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.26 VstpCgpaGttActScpvalCat2NotApplied

Measurement ID

21976

Measurement Group

vSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The total number of messages where SCPVAL CAT2 GTT Action was not applied per CGTT.

Collection Interval

30 min

Peg Condition

When any message received from peer and gttaction scpval with valtype=IR21ToTcap and gttaction not applied per CGTT.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.32.27 VstpCgpaGttActScpvalCat2Discard

Measurement ID

21975

Measurement Group

vSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The total number of messages discarded by SCPVAL CAT2 GTT Action per CGTT.

Collection Interval

30 min

Peg Condition

When any message received from peer and gttaction scpval with valtype=IR21ToTcap and discarded per CGTT.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.32.28 VstpCgpaGttActScpvalCat2Total

Measurement ID

21974

Measurement Group

vSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The total number of messages received by SCPVAL CAT2 GTT Action per CGTT.

Collection Interval

30 min

Peg Condition

When any message received from peer and gttaction scpval with valtype=IR21ToTcap per CGTT.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.29 VstpGttActScpvalCat2NotApplied

Measurement ID

21973

Measurement Group

vSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The total number of messages where SCPVAL CAT2 GTT Action was not applied.

Collection Interval

30 min

Peg Condition

When any message received from peer and gttaction scpval with valtype=IR21ToTcap and gttaction not applied.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.30 VstpGttActScpvalCat2Discard

Measurement ID

21972

Measurement Group

vSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The total number of messages discarded by SCPVAL CAT2 GTT Action.

Collection Interval

30 min

Peg Condition

When any message received from peer and gttaction scpval with valtype=IR21ToTcap and validation failed.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.31 VstpGttActScpvalCat2Total

Measurement ID

21971

Measurement Group

vSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The total number of messages received by SCPVAL CAT2 GTT Action.

Collection Interval

30 min

Peg Condition

When any message received from peer and gttaction scpval with valtype=IR21ToTcap.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.32 VstpRxSccpReassSegSucc

Measurement ID

21903

Measurement Group

vSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of segmented XUDT messages reassembled successfully.

Collection Interval

30 min

Peg Condition

This measurement pegs number of segmented XUDT messages reassembled successfully.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.33 VstpTxSccpLargeMsgs

Measurement ID

21908

Measurement Group

vSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of egress large user data messages performed for segmentation.

Collection Interval

30 min

Peg Condition

This measurement pegs number of egress large user data messages performed for segmentation.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.34 VstpTxSccpSegProcSucc

Measurement ID

21906

Measurement Group

vSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of times segmentation procedure completed successfully.

Collection Interval

30 min

Peg Condition

This measurement pegs number of times segmentation procedure completed successfully.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.35 VstpRxSccpReassProcSucc

Measurement ID

21901

Measurement Group

vSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of times reassembly procedure completed successfully.

Collection Interval

30 min

Peg Condition

This measurement pegs number of times reassembly procedure completed successfully.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.36 VstpRxSccpSgmntsDisc

Measurement ID

21904

Measurement Group

vSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of segmented XUDT messages Discarded due to reassembly failure.

Collection Interval

30 min

Peg Condition

This measurement pegs number of segmented XUDT messages Discarded due to reassembly failure.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.37 VstpRxSccpXUDTSgmnts

Measurement ID

21903

Measurement Group

vSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of ingress segmented XUDT messages received from network.

Collection Interval

30 min

Peg Condition

This measurement pegs number of ingress segmented XUDT messages received from network.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.32.38 VstpRxSccpMsgOctets

Measurement ID

21957

Measurement Group

VSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of terminating SCCP/UP SIF octets.

Collection Interval

5 min

Peg Condition

Pegging MSUs which are terminating on SCCP Layer i.e. pegging MSUs whose DPC is similar to Local PC.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.33 vSTP SCCP Usage measurements

Section Title

3.98.33.1 VstpSccpGTTPERFD

Measurement ID

21200

Measurement Group

vSTP SCCP Usages

Measurement Type

Simple

Measurement Dimension

Single

Description

The total number of global title translations (GTTs) performed on MSUs that successfully completed GTT.

Collection Interval

30 min

Peg Condition

Each time GTT successfully completes.

Measurement Scope

NE, Server

Recovery

- No action required.

3.98.34 vSTP Server Exception measurements

3.98.34.1 VstpITUDiscardsNoPDUBuffer

Measurement ID

21152

Measurement Group

vSTP Server Resource Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress messages that were discarded because no ITUI/ITUN PDU Buffers were available.

Collection Interval

30 min

Peg Condition

The number of ingress messages that were discarded because no ITUI/ITUN PDU Buffers were available.

Measurement Scope

NE, Server

Recovery

1. A PDU is allocated to each message that arrives at a vSTP and is de-allocated when message processing completes. This measurement is useful for evaluating whether persistent network problems exist. In general, PDU buffers are engineered to match the processing capacity of the vSTP . If network problems exist, delaying the off-delaying of egress messages from the vSTP, then PDUs/messages will sit in internal SS7 queues. Under normal circumstances, the PDU Buffer Pool should never be 100% utilized.
2. If the measurement is greater than zero, then a network (IP or SS7) problem may exist or a vSTP-specific software problem may exist (such as a buffer pool leak).
3. It is recommended to contact [My Oracle Support](#) for assistance if needed.

3.98.34.2 VstpANSIDiscardsNoPDUBuffer

Measurement ID

21155

Measurement Group

VSTP Server Resource Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress messages that were discarded because no ANSI PDU Buffers were available.

Collection Interval

30 min

Peg Condition

The number of ingress messages that were discarded because no ANSI PDU Buffers were available.

Measurement Scope

NE, Server

Recovery

1. A PDU is allocated to each message that arrives at a vSTP and is de-allocated when message processing completes. This measurement is useful for evaluating whether persistent network problems exist. In general, PDU buffers are engineered to match the processing capacity of the vSTP . If network problems exist, delaying the off-delaying of egress messages from the vSTP, then PDUs/messages will sit in internal SS7 queues. Under normal circumstances, the PDU Buffer Pool should never be 100% utilized.

2. If the measurement is greater than zero, then a network (IP or SS7) problem may exist or a vSTP-specific software problem may exist (such as a buffer pool leak).
3. It is recommended to contact [My Oracle Support](#) for assistance if needed.

3.98.35 vSTP Server Usage measurements

3.98.35.1 VstpITUPDUUtilPeak

Measurement ID

21150

Measurement Group

vSTP Server Resource Usages

Measurement Type

Max

Measurement Dimension

Single

Description

The peak SS7 ITPDU Buffer Pool utilization (0-100%) measured during the collection interval.

Collection Interval

30 min

Peg Condition

The maximum SS7 ITUPDU Buffer Pool utilization sample taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. A PDU is allocated to each message that arrives at a vSTP and is de-allocated when message processing completes. This measurement is useful for evaluating whether persistent network problems exist. In general, PDU buffers are engineered to match the processing capacity of the vSTP . If network problems exist, delaying the off-delaying of egress messages from the vSTP, then PDUs/ messages will sit in internal SS7 queues.
2. If both the peak and average measurements for multiple vSTPs within a Network Element are consistently near the recommended maximum engineered capacity of a vSTP when the Ingress Message Rate and/or SS7 Process CPU Utilization measurements are below the recommended maximum engineered capacity of an vSTP, then a network (IP or SS7) problem may exist. Looking at these measurements on a time of day basis may provide additional insight into potential network problems.
3. If the peak and average for an individual vSTP is significantly different than other vSTPs in the same Network Element, then a vSTP-specific software problem may exist (such as a buffer pool peak).
4. It is recommended to contact [My Oracle Support](#) for assistance if needed.

3.98.35.2 VstpITUPDUUtilAvg

Measurement ID

21151

Measurement Group

vSTP Server Resource Usages

Measurement Type

Average

Measurement Dimension

Single

Description

The average SS7 ITPDU Buffer Pool utilization (0-100%) measured during the collection interval.

Collection Interval

30 min

Peg Condition

The average SS7 ITUPDU Buffer Pool utilization sample taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. A PDU is allocated to each message that arrives at a vSTP and is de-allocated when message processing completes. This measurement is useful for evaluating whether persistent network problems exist. In general, PDU buffers are engineered to match the processing capacity of the vSTP . If network problems exist, delaying the off-delaying of egress messages from the vSTP, then PDUs/messages will sit in internal SS7 queues.
2. If both the peak and average measurements for multiple vSTPs within a Network Element are consistently near the recommended maximum engineered capacity of a vSTP when the Ingress Message Rate and/or SS7 Process CPU Utilization measurements are below the recommended maximum engineered capacity of an vSTP, the a network (IP or SS7) problem may exist. Looking at these measurements on a time of day basis may provide additional insight into potential network problems.
3. If the peak and average for an individual vSTP is significantly different that other vSTPs in the same Network Element, then a vSTP-specific software problem may exist (such as a buffer pool peak).
4. It is recommended to contact [My Oracle Support](#) for assistance if needed.

3.98.35.3 VstpANSIPDUUtilPeak

Measurement ID

21153

Measurement Group

vSTP Server Resource Usages

Measurement Type

Max

Measurement Dimension

Single

Description

The peak SS7 ANSI PDU Buffer Pool utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

The maximum SS7 ANSI PDU Buffer Pool utilization sample taken during the collection interval.

Measurement Scope

NE, Server

Recovery

1. A PDU is allocated to each message that arrives at a vSTP and is de-allocated when message processing completes. This measurement is useful for evaluating whether persistent network problems exist. In general, PDU buffers are engineered to match the processing capacity of the vSTP . If network problems exist, delaying the off-delaying of egress messages from the vSTP, then PDUs/ messages will sit in internal SS7 queues.
2. If both the peak and average measurements for multiple vSTPs within a Network Element are consistently near the recommended maximum engineered capacity of a vSTP when the ingress Message Rate and/or SS7 Process CPU Utilization measurement are below the recommended engineered capacity of a vSTP, then a network (IP or SS7) problem may exist. Looking at these measurements on a time of day basis may provide additional insight into potential network problems.
3. If the peak and average for an individual vSTP is significantly different than other vSTPs in the same Network element, then a vSTP-specific software problem may exist (such as a buffer pool leak).
4. It is recommended to contact [My Oracle Support](#) for assistance if needed.

3.98.35.4 VstpANSIPDUUtilAvg

Measurement ID

21154

Measurement Group

VSTP Server Resource Usages

Measurement Type

Max

Measurement Dimension

Single

Description

The average SS7 ANSI PDU Buffer Pool utilization (0-100%) measured during the collection interval.

Collection Interval

5 min

Peg Condition

The average of all SS7 ANSI PDU Buffer Pool utilization samples taken during the collection interval

Measurement Scope

NE, Server

Recovery

1. A PDU is allocated to each message that arrives at a vSTP and is de-allocated when message processing completes. This measurement is useful for evaluating whether persistent network problems exist. In general, PDU buffers are engineered to match the processing capacity of the vSTP . If network problems exist, delaying the off-delaying of egress messages from the vSTP, then PDUs/messages will sit in internal SS7 queues.
2. If both the peak and average measurements for multiple vSTPs within a Network Element are consistently near the recommended maximum engineered capacity of a vSTP when the ingress Message Rate and/or SS7 Process CPU Utilization measurement are below the recommended engineered capacity of a vSTP, then a network (IP or SS7) problem may exist. Looking at these measurements on a time of day basis may provide additional insight into potential network problems.
3. If the peak and average for an individual vSTP is significantly different than other vSTPs in the same Network Element, then a vSTP-specific software problem may exist (such as a buffer pool leak).
4. It is recommended to contact [My Oracle Support](#) for assistance if needed.

3.98.36 vSTP SFAPP Exception measurements

3.98.36.1 VstpRxSfappMsgDiscard

Measurement ID

21707

Measurement Group

VSTP SFAPP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of SFAPP messages that have been received and discarded.

Collection Interval

5 min

Peg Condition

P egged when any Message is discarded by SFAPP.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.36.2 VstpSfappInternalError

Measurement ID

21708

Measurement Group

VSTP SFAPP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of messages discarded due to internal processing error.

Collection Interval

5 min

Peg Condition

Pegged when any message discarded due to internal processing.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.36.3 VstpSfappCADcdFail

Measurement ID

21709

Measurement Group

VSTP SFAPP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of SfApp CA response discarded due to decode failed.

Collection Interval

5 min

Peg Condition

Pegged when there is decoding failure error for SFAPP Message.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.36.4 VstpSfappCATimeOut

Measurement ID

21710

Measurement Group

VSTP SFAPP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of messages for which CA query to UDR timed out.

Collection Interval

5 min

Peg Condition

When UDR is timed out for ComAgent Query.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.36.5 VstpSfappSubsNotFound

Measurement ID

21713

Measurement Group

VSTP SFAPP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of subscriber record not in UDR DB.

Collection Interval

5 min

Peg Condition

When subscriber record not found in UDR DB.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.36.6 VstpSfappCATxFail

Measurement ID

21715

Measurement Group

VSTP SFAPP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of messages discarded by SFAPP because of send fail to CA layer.

Collection Interval

5 min

Peg Condition

When any message discarded by SFAPP because of send fail to CA layer.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.36.7 VstpSfappPduFull

Measurement ID

21716

Measurement Group

VSTP SFAPP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of messages discarded when PDU pool is exhausted.

Collection Interval

5 min

Peg Condition

When any messages discarded when PDU pool is exhausted.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.36.8 VstpSFAPPStackQueueFull

Measurement ID

21720

Measurement Group

VSTP SFAPP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of ingress SFAPP messages that were discarded because the VSTP SFAPP Stack Event Queue was full.

Collection Interval

5 min

Peg Condition

SFAPP messages that was discarded because the VSTP SFAPP Stack Event Queue was full.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.37 vSTP SFAPP Performance measurements

3.98.37.1 VstpSfappMsgSuccess

Measurement ID

21702

Measurement Group

VSTP SFAPP Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Total number of messages that passed VLR validation.

Collection Interval

5 min

Peg Condition

Pegged when VLR Validation is successful.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.37.2 VstpSfappMsgFailed

Measurement ID

21703

Measurement Group

VSTP SFAPP Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Total number of messages failed VLR validation.

Collection Interval

5 min

Peg Condition

Pegged VLR Validation is failed.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.37.3 VstpSfappMsgError1

Measurement ID

21704

Measurement Group

VSTP SFAPP Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Total number of Vstp generated SFAPP messages with validation errors.

Collection Interval

5 min

Peg Condition

Pegged when there is decoding error for UpdateLoc/RegisterSS MessageVLR Validation.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.37.4 VstpSfappMsgError2

Measurement ID

21705

Measurement Group

VSTP SFAPP Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Total number of Vstp generated SFAPP messages with validation errors.

Collection Interval

5 min

Peg Condition

Pegged when there is decoding error for ATI/ATIACK Message.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.37.5 VstpRxSfappMsg

Measurement ID

21706

Measurement Group

VSTP SFAPP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

The total number of messages received to SFAPP.

Collection Interval

5 min

Peg Condition

Pegged when message is received on SFAPP.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.37.6 VstpSfappCAAvgProcessTime

Measurement ID

21711

Measurement Group

VSTP SFAPP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Average Sfapp CA query response time from UDR.

Collection Interval

5 min

Peg Condition

Average Sfapp CA query response time for UDR.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.37.7 VstpSfappCAMaxProcessTime

Measurement ID

21712

Measurement Group

VSTP SFAPP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

Peak time by CA to send query and receive the response from UDR for Sfapp Messages.

Collection Interval

5 min

Peg Condition

Peak time by CA to send query and receive the response from UDR for Sfapp Messages.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.37.8 VstpSfappCATx

Measurement ID

21714

Measurement Group

VSTP SFAPP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of DB request sent by vSTP.

Collection Interval

5 min

Peg Condition

When any DB request is sent by vSTP to UDR.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.37.9 VstpSfappCAProcesTime

Measurement ID

21717

Measurement Group

VSTP SFAPP Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Time required by CA to send query and receive the response from UDR.

Collection Interval

5 min

Peg Condition

Time required by CA to send query and receive the response from UDR.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.37.10 VstpSFAPPStackQueuePeak

Measurement ID

21718

Measurement Group

VSTP SFAPP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak VSTP SFAPP Stack Event Queue utilization measured during the collection interval.

Collection Interval

5 min

Peg Condition

The peak VSTP SFAPP Stack Event Queue utilization measured during the collection interval.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.37.11 VstpSFAPPStackQueueAvg

Measurement ID

21719

Measurement Group

VSTP SFAPP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average VSTP SFAPP Stack Event Queue utilization measured during the collection interval.

Collection Interval

5 min

Peg Condition

The average VSTP SFAPP Stack Event Queue utilization measured during the collection interval.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.37.12 VstpTxSfappMsg

Measurement ID

21782

Measurement Group

VSTP SFAPP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The total number of messages transmitted from SFAPP.

Collection Interval

5 min

Peg Condition

Peak time by CA to send query and receive the response from UDR for Sfapp Messages.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.37.13 VstpTxSfappMsgPeak

Measurement ID

21783

Measurement Group

VSTP SFAPP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak number of messages transmitted from SFAPP

Collection Interval

5 min

Peg Condition

The peak number of messages transmitted from SFAPP.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.37.14 VstpTxSfappMsgAvg

Measurement ID

21784

Measurement Group

VSTP SFAPP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average number of messages transmitted from SFAPP.

Collection Interval

5 min

Peg Condition

The average number of messages transmitted from SFAPP.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.37.15 VstpRxSfappMsgPeak

Measurement ID

21785

Measurement Group

VSTP SFAPP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak number of messages received from SFAPP.

Collection Interval

5 min

Peg Condition

The peak number of messages received from SFAPP.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.37.16 VstpRxSfappMsgAvg

Measurement ID

21786

Measurement Group

VSTP SFAPP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average number of messages received from SFAPP.

Collection Interval

5 min

Peg Condition

The average number of messages received from SFAPP.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.37.17 VstpSfappDefaultIdx

Measurement ID

21787

Measurement Group

VSTP SFAPP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Sfapp Default Index .When no action ID is applied on the message.

Collection Interval

5 min

Peg Condition

When there is some error but no GTT action id is associated.

Measurement Scope

NE, Server

Recovery

- Contact [My Oracle Support](#) for any assistance.

3.98.37.18 VstpOriginatingMSUOctets

Measurement ID

21959

Measurement Group

VSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of originating SCCP/UP SIF octets.

Collection Interval

5 min

Peg Condition

Pegging MSUs Octets which are originating from SCCP Layer.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.37.19 VstpOriginatingMSU

Measurement ID

21958

Measurement Group

VSTP SCCP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of originating SCCP/UP messages.

Collection Interval

5 min

Peg Condition

Pegging MSUs which are originating from SCCP Layer.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.38 vSTP ISUP Performance Measurements

3.98.38.1 VstpTinpMsgRcv

Measurement ID

21921

Measurement Group

vSTP ISUP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of IAM messages received that require TIF processing.

Collection Interval

30 min

Peg Condition

When IAM messages is received and require TIF processing.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.38.2 VstpTinpMsgGen

Measurement ID

21922

Measurement Group

vSTP ISUP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of IAM messages received that required TIF processing and resulted in the modification of the IAM message or the generation of a REL message.

Collection Interval

5 min

Peg Condition

When IAM messages that required TIF processing is received and Either CdPN/CgPN was really updated or RELease was generated.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.38.3 VstpTifSelscrRelay

Measurement ID

21929

Measurement Group

vSTP ISUP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of MSUs processed by TIF and relayed by SELSCR Service Action.

Collection Interval

5 min

Peg Condition

When MSU is processed by TIF and relayed by SELSCR Service Action.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.38.4 VstplsupCAProcessTime

Measurement ID

21936

Measurement Group

vSTP ISUP Performance

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Time required by CA to send query and receive the response from UDR.

Collection Interval

5 min

Peg Condition

When CA sends a query and receive response from UDR on ISUP layer.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.38.5 VstpIsupCAAvgProcessTime

Measurement ID

21930

Measurement Group

vSTP ISUP Performance

Measurement Type

Average

Measurement Dimension

Single

Description

Average time by CA to send query and receive the response from UDR.

Collection Interval

5 min

Peg Condition

When CA sends a query and receive response from UDR on ISUP layer.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.38.6 VstpIsupCAMaxProcessTime

Measurement ID

21931

Measurement Group

vSTP ISUP Performance

Measurement Type

Max

Measurement Dimension

Single

Description

Peak time by CA to send query and receive the response from UDR.

Collection Interval

5 min

Peg Condition

When CA sends a query and receive response from UDR on ISUP layer.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.39 vSTP ISUP Exception Measurements

3.98.39.1 VstpTinpErr

Measurement ID

21923

Measurement Group

vSTP ISUP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of IAM messages received that required TIF processing but resulted in execution of an error case.

Collection Interval

5 min

Peg Condition

When IAM messages received that required TIF processing but resulted in execution of an error case.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.39.2 VstpTifRelease

Measurement ID

21924

Measurement Group

vSTP ISUP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of IAM messages received that were processed by TIF and found to be blacklisted by BLRLS Service Action.

Collection Interval

5 min

Peg Condition

When IAM messages received that were processed by TIF with either CdPN/CgPN was really updated or RELease was generated and found to be blacklisted by BLRLS Service Action.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.39.3 VstplsupCATimeOut

Measurement ID

21934

Measurement Group

vSTP ISUP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of messages for which CA query to UDR timed out.

Collection Interval

5 min

Peg Condition

When CA query to UDR timed out for ISUP message.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.39.4 VstplsupCADecodeFail

Measurement ID

21933

Measurement Group

vSTP ISUP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of messages discarded by ISUP due to decode failed of CA response message.

Collection Interval

5 min

Peg Condition

When CA response messages are discarded by ISUP layer due to decoding failure.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.39.5 VstplsupInternalError

Measurement ID

21932

Measurement Group

vSTP ISUP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of messages discarded due to internal processing error.

Collection Interval

5 min

Peg Condition

When messages are discarded due to internal error while processing on ISUP layer.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.39.6 VstpTifSelscrRelease

Measurement ID

21928

Measurement Group

vSTP ISUP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of MSUs processed by TIF and found to be blacklisted by SELSCR Service Action.

Collection Interval

5 min

Peg Condition

When MSUs processed by TIF with either CdPN/CgPN was really updated or RELease was generated and found to be blacklisted by SELSCR Service Action.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.39.7 VstpTifNoCgpnRelease

Measurement ID

21927

Measurement Group

vSTP ISUP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of IAM messages received that were processed by TIF and found to be blacklisted by NOCGPNRLS Service Action.

Collection Interval

5 min

Peg Condition

When IAM messages received that were processed by TIF with either CdPN/CgPN was really updated or RELease was generated and found to be blacklisted by NOCGPNRLS Service Action.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.39.8 VstpTifFpfxRelease

Measurement ID

21926

Measurement Group

vSTP ISUP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of IAM messages received that were processed by TIF and found to be blacklisted by FPFXRLS Service Action.

Collection Interval

5 min

Peg Condition

When IAM messages received that were processed by TIF with either CdPN/CgPN was really updated or RELease was generated and found to be blacklisted by FPFXRLS Service Action.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.39.9 VstpTifNotFoundDnRelease

Measurement ID

21925

Measurement Group

vSTP ISUP Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of IAM messages received that were processed by TIF and found to be blacklisted by BLNFNDRLS Service Action.

Collection Interval

5 min

Peg Condition

When IAM messages received that were processed by TIF with either CdPN/CgPN was really updated or RELease was generated and found to be blacklisted by BLNFNDRLS Service Action.

Measurement Scope

NE, Server

Recovery

- No action necessary.

3.98.40 vSTP MP Performance measurements

3.98.40.1 VstpMpCpuAvg

Measurement ID

21282

Measurement Group

vSTP MP Performance Measurement

Measurement Type

Simple

Measurement Dimension

Single

Description

VSTP-MP average CPU utilization by vstp process.

Collection Interval

5 min

Peg Condition**Measurement Scope**

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) for assistance if needed.

3.98.40.2 VstpMpCpuPeak

Measurement ID

21281

Measurement Group

vSTP MP Performance Measurement

Measurement Type

Simple

Measurement Dimension

Single

Description

VSTP-MP peak CPU utilization by vSTP process.

Collection Interval

5 min

Peg Condition

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) for assistance if needed.

3.98.40.3 VstpMpMSUFwdFail

Measurement ID

21580

Measurement Group

vSTP MP Performance Measurement

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of MSU being discarded at MTP3 layer because of egress STP MP is either unavailable or congested.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) for assistance if needed.

3.98.40.4 VstpRxMpMSU

Measurement ID

21586

Measurement Group

vSTP MP Performance Measurement

Measurement Type

Simple

Measurement Dimension

Single

Description

The number of MSUs received on the Mp. This measurement includes SCMG messages (which are DATA to the M3RL layer), but does not include SSNM messages.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) for assistance if needed.

3.98.40.5 VstpRxMpTPSAvg

Measurement ID

21588

Measurement Group

vSTP MP Performance Measurement

Measurement Type

Average

Measurement Dimension

Single

Description

The average ingress MSU received on MP.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) for assistance if needed.

3.98.40.6 VstpRxMpTPSPeak

Measurement ID

21587

Measurement Group

vSTP MP Performance Measurement

Measurement Type

Max

Measurement Dimension

Single

Description

The peak ingress MSU recieved on MP.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) for assistance if needed.

3.98.40.7 VstpTxMpMSU

Measurement ID

21589

Measurement Group

vSTP MP Performance Measurement

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of MSUs sent from the MP. This measurement includes SCMG messages (which are DATA to the M3RL layer), but does not include SSNM messages.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) for assistance if needed.

3.98.40.8 VstpTxMpTPSAvg

Measurement ID

21591

Measurement Group

vSTP MP Performance Measurement

Measurement Type

Average

Measurement Dimension

Single

Description

The average egress MSU sent on MP.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) for assistance if needed.

3.98.40.9 VstpTxMpTPSPeak

Measurement ID

21590

Measurement Group

vSTP MP Performance Measurement

Measurement Type

Max

Measurement Dimension

Single

Description

The peak egress MSU sent on MP.

Collection Interval

5 min

Peg Condition

None

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) for assistance if needed.

3.98.41 vSTP SecuLog Performance Measurements

3.98.41.1 VstpSecuLogQueuePeak

Measurement ID

21978

Measurement Group

VSTP SecuLog Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak value of Security Logging task queue.

Collection Interval

5 min

Peg Condition

Message should be processed by Security Logging Task.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.41.2 VstpSecuLogQueueAvg

Measurement ID

21979

Measurement Group

VSTP SecuLog Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average value of Security Logging task queue.

Collection Interval

5 min

Peg Condition

Message should be processed by Security Logging Task.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.41.3 VstpSecuLogRate

Measurement ID

21980

Measurement Group

VSTP SecuLog Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Security log event.

Collection Interval

5 min

Peg Condition

Security logging task sends the log message for writing into csv file.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.41.4 VstpSecuLogRatePeak

Measurement ID

21981

Measurement Group

VSTP SecuLog Performance

Measurement Type

Max

Measurement Dimension

Single

Description

The peak value of Security logging event.

Collection Interval

5 min

Peg Condition

Security logging task sends the log message for writing into csv file.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.41.5 VstpSecuLogRateAvg

Measurement ID

21982

Measurement Group

VSTP SecuLog Performance

Measurement Type

Average

Measurement Dimension

Single

Description

The average value of Security logging event.

Collection Interval

5 min

Peg Condition

Security logging task sends the log message for writing into csv file.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.42 vSTP SecuLog Exception Measurements

3.98.42.1 VstpSecuLogDiscQueueFull

Measurement ID

21977

Measurement Group

VSTP SecuLog Exception

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of log messages discarded due to Security Logging task queue was full.

Collection Interval

5 min

Peg Condition

When Security Logging task queue is full.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43 vSTP Accounting Measurements

3.98.43.1 VstpRxOpcLnksetMsu

Measurement ID

22070

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of Rx MSUs per Linkset and OPC.

Collection Interval

5 min

Peg Condition

`AccountingMeasurementFeature` and `OpLinksetAccMeasOption` should be set as **YES** in **VstpAccMeasOptions** table.

`linksetAccMeasOption` should be set as **YES** in **VstpLinkset** table for incoming Linkset.

Service Indicator >= 3

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.2 VstpTxOpcLnksetMsu

Measurement ID

22071

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of Tx MSUs per Linkset and OPC.

Collection Interval

5 min

Peg Condition

`AccountingMeasurementFeature` and `OpLinksetAccMeasOption` should be set as **YES** in **VstpAccMeasOptions** table.

`linksetAccMeasOption` should be set as **YES** in **VstpLinkset** table for incoming Linkset.

Service Indicator >= 3

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.3 VstpRxOpcLnksetMsuOctets

Measurement ID

22072

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of Rx MSUs Octets per Linkset and OPC.

Collection Interval

5 min

Peg Condition

`AccountingMeasurementFeature` and `OpcLinksetAccMeasOption` should be set as **YES** in **VstpAccMeasOptions** table.

`linksetAccMeasOption` should be set as **YES** in **VstpLinkset** table for incoming Linkset.

Service Indicator >= 3

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.4 VstpTxOpcLnksetMsuOctets

Measurement ID

22073

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of Tx MSUs Octets per Linkset and OPC.

Collection Interval

5 min

Peg Condition

AccountingMeasurementFeature and OpLinksetAccMeasOption should be set as **YES** in **VstpAccMeasOptions** table.

linksetAccMeasOption should be set as **YES** in **VstpLinkset** table for incoming Linkset.

Service Indicator >= 3

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.5 VstpRxDpcLnksetMsu

Measurement ID

22074

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of Rx MSUs per Linkset and DPC.

Collection Interval

5 min

Peg Condition

AccountingMeasurementFeature and OpLinksetAccMeasOption should be set as **YES** in **VstpAccMeasOptions** table.

linksetAccMeasOption should be set as **YES** in **VstpLinkset** table for incoming Linkset.

Service Indicator >= 3

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.6 VstpTxDpcLnksetMsu

Measurement ID

22075

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of Tx MSUs per Linkset and DPC.

Collection Interval

5 min

Peg Condition

`AccountingMeasurementFeature` and `OpLinksetAccMeasOption` should be set as **YES** in **VstpAccMeasOptions** table.

`linksetAccMeasOption` should be set as **YES** in **VstpLinkset** table for incoming Linkset.

Service Indicator ≥ 3

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.7 VstpRxDpcLnksetMsuOctets

Measurement ID

22076

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of Rx MSUs Octets per Linkset and DPC.

Collection Interval

5 min

Peg Condition

`AccountingMeasurementFeature` and `OpLinksetAccMeasOption` should be set as **YES** in **VstpAccMeasOptions** table.

`linksetAccMeasOption` should be set as **YES** in **VstpLinkset** table for incoming Linkset.

Service Indicator ≥ 3

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.8 VstpTxDpcLnksetMsuOctets

Measurement ID

22077

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of Tx MSUs Octets per Linkset and DPC.

Collection Interval

5 min

Peg Condition

`AccountingMeasurementFeature` and `OpcLinksetAccMeasOption` should be set as **YES** in **VstpAccMeasOptions** table.

`linksetAccMeasOption` should be set as **YES** in **VstpLinkset** table for incoming Linkset.

Service Indicator ≥ 3

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.9 VstpRxOpcDpcMsu

Measurement ID

22078

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of Rx MSUs per OPC and DPC.

Collection Interval

5 min

Peg Condition

AccountingMeasurementFeature and OpLinksetAccMeasOption should be set as **YES** in **VstpAccMeasOptions** table.

linksetAccMeasOption should be set as **YES** in **VstpLinkset** table for incoming Linkset.
Service Indicator >= 3

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.10 VstpTxOpcDpcMsu

Measurement ID

22079

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of Tx MSUs per OPC and DPC.

Collection Interval

5 min

Peg Condition

AccountingMeasurementFeature and OpLinksetAccMeasOption should be set as **YES** in **VstpAccMeasOptions** table.

linksetAccMeasOption should be set as **YES** in **VstpLinkset** table for incoming Linkset.
Service Indicator >= 3

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.11 VstpRxOpcDpcMsuOctets

Measurement ID

22080

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of Rx MSUs Octets per OPC and DPC.

Collection Interval

5 min

Peg Condition

`AccountingMeasurementFeature` and `OpLinksetAccMeasOption` should be set as **YES** in **VstpAccMeasOptions** table.

`linksetAccMeasOption` should be set as **YES** in **VstpLinkset** table for incoming Linkset.

Service Indicator ≥ 3

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.12 VstpTxOpcDpcMsuOctets

Measurement ID

22081

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of Tx MSUs Octets per OPC and DPC.

Collection Interval

5 min

Peg Condition

`AccountingMeasurementFeature` and `OpLinksetAccMeasOption` should be set as **YES** in **VstpAccMeasOptions** table.

`linksetAccMeasOption` should be set as **YES** in **VstpLinkset** table for incoming Linkset.

Service Indicator ≥ 3

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.13 VstpRxOpcSccpCdpa

Measurement ID

22082

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The total number of messages received from M3RL to SCCP for OPC+CDPA option.

Collection Interval

5 min

Peg Condition

`AccountingMeasurementFeature` and `OpcCdpaAccMeasOption` should be set as **YES** in **VstpAccMeasOptions** table.

`linksetAccMeasOption` should be set as **YES** in **VstpLinkset** table for incoming Linkset. Called GTA must be present.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.14 VstpTxDpcSccpCdpa

Measurement ID

22083

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Tx messages from DPC and SCCP Called party.

Collection Interval

5 min

Peg Condition

`AccountingMeasurementFeature` and `OpccdpaAccMeasOption` should be set as **YES** in **VstpAccMeasOptions** table.

`linksetAccMeasOption` should be set as **YES** in **VstpLinkset** table for incoming Linkset.

Called GTA must be present.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.15 VstpRxOpccgpa

Measurement ID

22084

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Rx messages from OPC and SCCP Calling party.

Collection Interval

5 min

Peg Condition

`AccountingMeasurementFeature` and `OpccdpaAccMeasOption` should be set as **YES** in **VstpAccMeasOptions** table.

`linksetAccMeasOption` should be set as **YES** in **VstpLinkset** table for incoming Linkset.

Called GTA must be present.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.16 VstpTxDpcscgpa

Measurement ID

22085

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Tx messages from DPC and SCCP Calling party.

Collection Interval

5 min

Peg Condition

`AccountingMeasurementFeature` and `OpcCdpaAccMeasOption` should be set as **YES** in **VstpAccMeasOptions** table.

`linksetAccMeasOption` should be set as **YES** in **VstpLinkset** table for incoming Linkset.
Called GTA must be present.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.17 VstpRxOpcSiNiMsu

Measurement ID

22086

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of Rx MSUs per OPC,SI and NI.

Collection Interval

5 min

Peg Condition

`AccountingMeasurementFeature` and `OpcSiNiAccMeasOption` should be set as **YES** in **VstpAccMeasOptions** table.

`linksetAccMeasOption` should be set as **YES** in **VstpLinkset** table for incoming Linkset.
For all valid Service Indicator code
Valid value of Network Indicator

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.18 VstpTxOpcSiNiMsu

Measurement ID

22087

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of Tx MSUs per OPC,SI and NI.

Collection Interval

5 min

Peg Condition

`AccountingMeasurementFeature` and `OpcSiNiAccMeasOption` should be set as **YES** in **VstpAccMeasOptions** table.

`linksetAccMeasOption` should be set as **YES** in **VstpLinkset** table for incoming Linkset.

For all valid Service Indicator code

Valid value of Network Indicator

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.19 VstpRxOpcSiNiMsuOctets

Measurement ID

22088

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of Rx MSUs Octets per OPC,SI and NI.

Collection Interval

5 min

Peg Condition

`AccountingMeasurementFeature` and `OpcSiNiAccMeasOption` should be set as **YES** in **VstpAccMeasOptions** table.

`linksetAccMeasOption` should be set as **YES** in **VstpLinkset** table for incoming Linkset.

For all valid Service Indicator code

Valid value of Network Indicator

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.20 VstpTxOpcSiNiMsuOctets

Measurement ID

22089

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of Tx MSUs Octets per OPC,SI and NI.

Collection Interval

5 min

Peg Condition

`AccountingMeasurementFeature` and `OpcSiNiAccMeasOption` should be set as **YES** in **VstpAccMeasOptions** table.

`linksetAccMeasOption` should be set as **YES** in **VstpLinkset** table for incoming Linkset.

For all valid Service Indicator code

Valid value of Network Indicator

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.21 VstpRxDpcSiNiMsu

Measurement ID

22090

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of Rx MSUs per DPC,SI and NI.

Collection Interval

5 min

Peg Condition

`AccountingMeasurementFeature` and `DpcSiNiAccMeasOption` should be set as **YES** in **VstpAccMeasOptions** table.

`linksetAccMeasOption` should be set as **YES** in **VstpLinkset** table for incoming Linkset.

For all valid Service Indicator code

Valid value of Network Indicator

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.22 VstpTxDpcSiNiMsu

Measurement ID

22091

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of Tx MSUs per DPC,SI and NI.

Collection Interval

5 min

Peg Condition

`AccountingMeasurementFeature` and `DpcSiNiAccMeasOption` should be set as **YES** in **VstpAccMeasOptions** table.

`linksetAccMeasOption` should be set as **YES** in **VstpLinkset** table for incoming Linkset.

For all valid Service Indicator code

Valid value of Network Indicator

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.23 VstpRxDpcSiNiMsuOctets

Measurement ID

22092

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of Rx MSUs Octets per DPC,SI and NI.

Collection Interval

5 min

Peg Condition

`AccountingMeasurementFeature` and `DpcSiNiAccMeasOption` should be set as **YES** in **VstpAccMeasOptions** table.

`linksetAccMeasOption` should be set as **YES** in **VstpLinkset** table for incoming Linkset.

For all valid Service Indicator code

Valid value of Network Indicator

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.24 VstpTxDpcSiNiMsuOctets

Measurement ID

22093

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of Tx MSUs Octets per DPC,SI and NI.

Collection Interval

5 min

Peg Condition

`AccountingMeasurementFeature` and `DpcSiNiAccMeasOption` should be set as **YES** in **VstpAccMeasOptions** table.

`linksetAccMeasOption` should be set as **YES** in **VstpLinkset** table for incoming Linkset.

For all valid Service Indicator code

Valid value of Network Indicator

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.25 VstpRxlLinksetSI

Measurement ID

22094

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Rx messages per Linkset and SI.

Collection Interval

5 min

Peg Condition

`AccountingMeasurementFeature` and `LinksetSiAccMeasOption` should be set as **YES** in **VstpAccMeasOptions** table.

`linksetAccMeasOption` should be set as **YES** in **VstpLinkset** table for incoming Linkset.

For all valid Service Indicator code

Valid value of Network Indicator

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.26 VstpTxLinksetSI

Measurement ID

22095

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Tx messages per Linkset and SI.

Collection Interval

5 min

Peg Condition

`AccountingMeasurementFeature` and `LinksetSiAccMeasOption` should be set as **YES** in **VstpAccMeasOptions** table.
`linksetAccMeasOption` should be set as **YES** in **VstpLinkset** table for incoming Linkset.
For all valid Service Indicator code
Valid value of Network Indicator

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.27 VstpRxLinksetSIOctets

Measurement ID

22096

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Rx messages Octets per Linkset and SI.

Collection Interval

5 min

Peg Condition

AccountingMeasurementFeature and LinksetSiAccMeasOption should be set as **YES** in **VstpAccMeasOptions** table.

linksetAccMeasOption should be set as **YES** in **VstpLinkset** table for incoming Linkset.

For all valid Service Indicator code

Valid value of Network Indicator

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.28 VstpTxLinksetSIOctets

Measurement ID

22097

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

Number of Tx messages Octets per Linkset and SI.

Collection Interval

5 min

Peg Condition

AccountingMeasurementFeature and LinksetSiAccMeasOption should be set as **YES** in **VstpAccMeasOptions** table.

linksetAccMeasOption should be set as **YES** in **VstpLinkset** table for incoming Linkset.

For all valid Service Indicator code

Valid value of Network Indicator

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.29 VstpTxOpcDpcNi

Measurement ID

22099

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of Tx MSUs per OPC,DPC and Network Indicator.

Collection Interval

5 min

Peg Condition

`AccountingMeasurementFeature` and `OpcDpcNiAccMeasOption` should be set as **YES** in **VstpAccMeasOptions** table.

`linksetAccMeasOption` should be set as **YES** in **VstpLinkset** table for incoming Linkset.

For all valid Service Indicator code

Valid value of Network Indicator

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.30 VstpRxOpcDpcNi

Measurement ID

22098

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of Rx MSUs per OPC,DPC and Network Indicator.

Collection Interval

5 min

Peg Condition

`AccountingMeasurementFeature` and `OpcDpcNiAccMeasOption` should be set as **YES** in **VstpAccMeasOptions** table.

`linksetAccMeasOption` should be set as **YES** in **VstpLinkset** table for incoming Linkset.

For all valid Service Indicator code

Valid value of Network Indicator

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.31 VstpRxOpcDpcNiOctets

Measurement ID

22100

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of Rx MSUs Octets per OPC,DPC and Network Indicator.

Collection Interval

5 min

Peg Condition

`AccountingMeasurementFeature` and `OpcDpcNiAccMeasOption` should be set as **YES** in **VstpAccMeasOptions** table.

`linksetAccMeasOption` should be set as **YES** in **VstpLinkset** table for incoming Linkset.

For all valid Service Indicator code

Valid value of Network Indicator

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.32 VstpTxOpcDpcNiOctets

Measurement ID

22101

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of Tx MSUs Octets per OPC,DPC and Network Indicator.

Collection Interval

5 min

Peg Condition

`AccountingMeasurementFeature` and `OpcDpcNiAccMeasOption` should be set as **YES** in **VstpAccMeasOptions** table.

`linksetAccMeasOption` should be set as **YES** in **VstpLinkset** table for incoming Linkset.

For all valid Service Indicator code

Valid value of Network Indicator

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.98.43.33 VstpRxGTTFailNoTranslation

Measurement ID

22107

Measurement Group

VSTP Accounting Measurement

Measurement Type

Simple

Measurement Dimension

Arrayed

Description

The number of GTTs unable to perform on messages received from an inter-connecting network, no translation for the address.

Collection Interval

5 min

Peg Condition

`AccountingMeasurementFeature` and `GTTOnInterConnectingNw` should be set as **YES** in **VstpAccMeasOptions** table.

`linksetAccMeasOption` should be set as **YES** in **VstpLinkset** table for incoming Linkset.

Measurement Scope

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

3.99 MPN vDRA Measurement

This section provides information about Mobile Private Network vDRA (MPN vDRA) measurements.

3.99.1 RadiusAllResolvedApnToMPN

Measurement ID

14838

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Radius request messages sent to MPN for APN match.

Collection Interval

5 min

Peg Condition

For ingress accounting requests when APNs are matched with provisioned APNs in the Radius Routing Options tab and a destination node is configured towards radiusMPNRouteList.

Measurement Scope

Site

1. Recovery
 - No action required

3.99.2 RadiusAllMismatchedApnToUMF

Measurement ID

14839

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Radius request messages sent to UMF for APN mismatch.

Collection Interval

5 min

Peg Condition

For ingress accounting requests when APNs are mis-matched with provisioned APNs in the Radius Routing Options tab (or APN is not provisioned), and then the default destination node is configured towards radiusUMFRouteList.

Measurement Scope

Site

1. Recovery
 - No action required

3.99.3 RadiusAllResolvedVrfIdToMPN

Measurement ID

14840

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Radius request messages sent to MPN for VrfId match.

Collection Interval

5 min

Peg Condition

For ingress access requests when authToMPN='Yes' and VRF-ID are matched with provisioned VRF-ID in the Radius Routing Options tab and a destination node is configured towards radiusMPNRouteList.

Measurement Scope

Site

1. Recovery
 - No action required

3.99.4 RadiusAllResolvedVrflidToAAA

Measurement ID

14841

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Radius request messages sent to AAA for Vrflid match.

Collection Interval

5 min

Peg Condition

For ingress access requests when authToMPN='No' and VRF-ID are matched with provisioned VRF-ID in the Radius Routing Options tab and a destination node is configured towards radiusAAARouteList.

Measurement Scope

Site

1. Recovery
 - No action required

3.99.5 RadiusAllMismatchedVrfIdToAAA

Measurement ID

14842

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Radius request messages sent to AAA for VrfId mismatch.

Collection Interval

5 min

Peg Condition

For ingress access requests when VRF-ID are mis-matched with provisioned VRF-ID in the Radius Routing Options tab (or VRF-ID is not provisioned) and a destination node is configured towards radiusAAARouteList.

Measurement Scope

Site

1. Recovery
 - No action required

3.99.6 RadiusAllMatchRuleSuccess

Measurement ID

14843

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Radius request messages for which APN and VRFID match are found.

Collection Interval

5 min

Peg Condition

Peg Number of Radius request messages for which APN and VRF-ID match are found.

Overall Radius messages (Access and Accounting) are matched with VRF-ID and APN that are provisioned in the Radius Routing Options tab.

Measurement Scope

Site

1. Recovery
 - No action required

3.99.7 RadiusAccessDefaultRouteToAAA

Measurement ID

14844

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Radius access request message default routed to AAA.

Collection Interval

5 min

Peg Condition

Overall Radius access request messages sent to radiusAAARouteList when VRF-ID is not found in the request message.

Measurement Scope

Site

1. Recovery
 - No action required

3.99.8 RadiusAccountDefaultRouteToUMF

Measurement ID

14845

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Radius accounting request message default routed to UMF.

Collection Interval

5 min

Peg Condition

Overall Radius accounting request messages sent to radiusUMFRouteList when APN is not found in the request message.

Measurement Scope

Site

1. Recovery
 - No action required

3.99.9 RadiusInvalidDestRouteList

Measurement ID

14846

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Radius request for which destination route list is invalid.

Collection Interval

5 min

Peg Condition

Overall radius accounting request messages for which the destination node is not configured or provisioned in System Options.

Measurement Scope

Site

1. Recovery
 - No action required

3.99.10 RadiusCalledStationIdAbsent

Measurement ID

14847

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Radius request for which Called station ID is absent.

Collection Interval

5 min

Peg Condition

Number of radius accounting request messages for which APN is absent.

Measurement Scope

Site

1. Recovery
 - No action required

3.99.11 RadiusVrfIdAbsent

Measurement ID

14848

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Radius request for which Vrf ID is absent.

Collection Interval

5 min

Peg Condition

Number of radius access request messages for which VRF-ID is absent.

Measurement Scope

Site

1. Recovery
 - No action required

3.99.12 RadiusAllCalledStationIdReceived

Measurement ID

14849

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Radius request for which the called station ID is received.

Collection Interval

5 min

Peg Condition

Number of radius accounting request messages for which APN is received.

Measurement Scope

Site

1. Recovery
 - No action required

3.99.13 RadiusAllVrfIdReceived

Measurement ID

14850

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Radius request for which the Vrf ID is received.

Collection Interval

5 min

Peg Condition

Number of radius access request messages for which the VRF-ID is received.

Measurement Scope

Site

1. Recovery
 - No action required

3.99.14 RadiusRequestWithNoRule

Measurement ID

14851

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Radius request for which no rule is configured in the Radius Routing Table.

Collection Interval

5 min

Peg Condition

Number of radius request messages (Access and Accounting) for which there is no rule provisioned in the Radius Routing Table.

Measurement Scope

Site

1. Recovery
 - No action required

3.99.15 RadiusInvalidTypeReceived

Measurement ID

14852

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Radius request for which invalid type ID is received.

Collection Interval

5 min

Peg Condition

Peg number of Radius request (Access and Accounting) for which neither VRF-ID nor APN is received. Some other attribute type is received.

Measurement Scope

Site

1. Recovery
 - No action required

3.99.16 RadiusCalledStIdAndVrfIdAbsent

Measurement ID

14853

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Radius request for which called station ID and VrfId are absent.

Collection Interval

5 min

Peg Condition

Overall radius request messages (Access and Accounting) for which neither VRF-ID nor APN is received.

Measurement Scope

Site

1. Recovery
 - No action required

3.99.17 RfMsgCopyAllMatchedApn

Measurement ID

14854

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of APN match for Rf Message Copy.

Collection Interval

5 min

Peg Condition

Number of matched APN with configured or provisioned APNs in overall diameter request messages on the Rf interface.

Measurement Scope

Site

1. Recovery
 - No action required

3.99.18 RfMsgCopyAllMisMatchedApn

Measurement ID

14855

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of APN does not match for Rf Message Copy.

Collection Interval

5 min

Peg Condition

Number of unmatched APN with configured or provisioned APNs in overall diameter request messages on the Rf interface.

Measurement Scope

Site

1. Recovery
 - No action required

3.99.19 RfMsgCopyCalledStnIdNotRecvdMeasId

Measurement ID

14856

Measurement Group

DA-MP Performance

Measurement Type

Simple

Measurement Dimension

Single

Description

Number of Rf Message where Called-Station-Id is not received.

Collection Interval

5 min

Peg Condition

Number of diameter request messages on the Rf interface is received without called-station-id.

Measurement Scope

Site

1. Recovery
 - No action required

A

Policy DRA Error Resolution Procedures

This section provides information and procedures to help users diagnose and resolve internal error codes indexed by the Policy DRA application. These procedures are best used in combination with the *Policy DRA Error Resolution* section of the *Policy DRA User's Guide*.

A.1 Error Code 500

Associated Error Category

Missing or Unconfigured APN

Description

Binding capable session initiation request is received with no APN.

Associated P-DRA Alarm/Event

Alarm 22730 - Policy and Charging Configuration Error (refer to the *DSR Alarms and KPIs Reference* for details about this alarm)

Associated Measurement

[RxBindCapMissingApn](#)

Associated Diameter Interface/Message Type

Gx/Gxx CCR-I

GUI Configurable

Yes

Recovery

1. See *CCR-I Processing with PCRF Pool* and *findOrCreateBinding Response Processing with PCRF Pool* in the Error Resolution appendix of the *Policy and Charging Application User Guide* to investigate and understand the circumstances where this error occurs and the impacts on Gx/Gxx CCR signaling processing.
2. Go to the P-DRA GUI at **Alarms & Events**, and then **View History**. Set up the right scope for Server Group, Resource Domain, Place and Place Association, or use Alarm 22730 - Policy and Charging Configuration Error (refer to the *DSR Alarms and KPIs Reference* for details about this alarm) as Display Filter to start the search.
3. A list of Alarm 22730 - Policy DRA Configuration Error (refer to the *DSR Alarms and KPIs Reference* for details about this alarm) displays. Select an alarm based on the alarm time stamp or other preferred criteria to display details of the alarm in **Alarms & Events**, and then **View History [Report]**.
4. Obtain the policy client's Origin-Host FQDN from the ERR_INFO in the alarm report on Alarm 22730 - Policy and Charging Configuration Error (refer to the *DSR Alarms and KPIs Reference* for details about this alarm).
5. Navigate to **Measurements**, and then **Report** to obtain the measurement report for [RxBindCapMissingApn](#) and other relevant measurements. The frequency of the problem may be observed.

6. If needed, it is recommended to contact [#unique_131](#) for further assistance.

A.2 Error Code 501

Associated Error Category

Missing or Unconfigured APN

Description

Binding capable session initiation request is received with an APN, but the APN is not configured in the APN configuration.

Associated P-DRA Alarm/Event

Alarm 22730 - Policy and Charging Configuration Error (refer to the *DSR Alarms and KPIs Reference* for details about this alarm)

Associated Measurement

[RxBindCapUnknownApn](#)

Associated Diameter Interface / Message Type

Gx/Gxx CCR-I

GUI Configurable

Yes

Recovery

1. See *CCR-I Processing with PCRF Pool* and *findOrCreateBinding Response Processing with PCRF Pool* in the Error Resolution appendix of the *Policy and Charging Application User Guide* to investigate and understand the circumstances where this error occurs and the impacts on Gx/Gxx CCR signaling processing.
2. Go to the PCA GUI at **Main Menu**, and then **Alarms & Events**, and then **View History**. Set up the right scope for Server Group, Resource Domain, Place and Place Association, or use Alarm 22730 - Policy and Charging Configuration Error (refer to the *DSR Alarms and KPIs Reference* for details about this alarm) as Display Filter to start the search.
3. A list of Alarm 22730 - Policy and Charging Configuration Error (refer to the *DSR Alarms and KPIs Reference* for details about this alarm) should be displayed. Select an alarm based on the alarm time stamp or other preferred criteria that will bring in the details of the alarm in **Main Menu**, and then **Alarms & Events**, and then **View History [Report]**.
4. Obtain the policy client's Origin-Host FQDN from the ERR_INFO in the alarm report on Alarm 22730 - Policy DRA Configuration Error (refer to the *DSR Alarms and KPIs Reference* for details about this alarm).
5. If the APN string is expected, configure the APN at the NOAMP using **Main Menu**, and then **Policy and Charging**, and then **Configuration**, and then **Access Point Names** screen.
6. If the APN string is not expected, it may imply that the policy client whose FQDN is specified in the ERR_INFO is using an invalid APN.
7. Go to **Main Menu**, and then **Measurements**, and then **Report** to obtain the measurement report for all relevant measurements. The frequency of the problem may be observed.

A.3 Error Code 502

Associated Error Category

Binding Found But Unable To Route

Description

Request message is received and a binding with a PRCF was found. Policy DRA can't route the request to PRCF due to DSR queue full error.

Associated P-DRA Alarm/Event

Event 22707 - Diameter Message Processing Failure (refer to the *DSR Alarms and KPIs Reference* for details about this event)

Associated Measurement

[RxRequestMsgQueueFullDiscard](#)

Associated Diameter Interface / Message Type

- Gx/Gxx CCR-I
- Rx AAR
- Gx-Prime CCR-I

GUI Configurable

Yes

Recovery

1. See *findSessionRef Processing* in the Error Resolution appendix of the *Policy and Charging Application User Guide* to investigate and understand the circumstances where this error occurs.
2. Go to the PCA NOAM GUI to collect information for possible root causes that may resort in the DRL queue being full:
 - Go to **Main Menu**, and then **Status & Manage**, and then **Server** to verify if some DA-MPs have failed. If some servers on the same side fail, the traffic will be distributed amongst the remaining DA-MPs).
 - Go to **Main Menu**, and then **Status & Manage**, and then **KPIs** to check the ingress traffic rates of the DA-MPs. Each DA-MP in the site should have about the same ingress rate in normal situation.
 - Go to **Main Menu**, and then **Alarms & Events**, and then **View History** to search for relevant congestion alarms. The Display Filter may be set as Timestamp or Server to include P-DRA, DRL, or DCL alarms.
3. Go to **Main Menu**, and then **Measurements**, and then **Report** to obtain the measurement report for all relevant measurements.

A.4 Error Code 2xx/3xx

Associated Error Category

Binding Found But Unable To Route

Description

Request message is received and a binding with a PRCF was found. Policy DRA can't route the request to PRCF due to PRCF being unreachable.

Associated P-DRA Alarm/Event

Event 22707 - Diameter Message Processing Failure (refer to the *DSR Alarms and KPIs Reference* for details about this event)

Associated Measurement

[TxPdraAnswersGeneratedForDiameterErr](#)

Associated Diameter Interface / Message Type

- Gx/Gxx CCR-I
- Rx AAR
- Gx-Prime CCR-I

GUI Configurable

Yes

Recovery

1. Error code 2xx/3xx is generated by DSR routing layer for various routing errors that result in the failure of routing the Diameter request to the PRCF.
2. Go to the PCA NOAM GUI to check the server status from **Main Menu**, and then **Status & Manage**, and then **Server** to verify if some DA-MPs have failed (if some servers on the same side fail, the traffic will be distributed amongst the remaining DA-MPs).
3. Go to **Main Menu**, and then **Status & Manage**, and then **KPIs** to check the ingress traffic rates of the DA-MPs. Each DA-MP in the site should have about the same ingress rate in normal situation
4. Go to **Main Menu**, and then **Alarms & Events**, and then **View History** to search for relevant congestion alarms. The Display Filter may be set as Timestamp or Server to include Policy DRA, DRL, or DCL alarms.
5. Check the PCA SOAM GUI **Main Menu**, and then **Measurements**, and then **Report** to search for relevant measurements.

A.5 Error Code 510

Associated Error Category

Binding Found But Unable To Route

Description

A slave session could not be routed because, on polling the slave, sessionRef was no longer in the binding database.

Associated P-DRA Alarm/Event

N/A

Associated Measurement

[SbrSlavePollingFail](#)

Associated Diameter Interface / Message Type

- Gx/Gxx CCR-I
- Rx AAR
- Gx-Prime CCR-I

GUI Configurable

Yes

Recovery

1. See *Early binding Processing with PCRF Pool* in the Error Resolution appendix of the *Policy and Charging Application User Guide* to investigate and understand
2. Go to the PCA SOAM GUI at **Main Menu**, and then **Status & Manage**, and then **Server** to check binding SBRs' status.
3. Go to the **Main Menu**, and then **Alarms & Events**, and then **View History** to check binding SBR's congestion alarm/event info to determine a relation with the error.
4. Go to the PCA SOAM GUI **Main Menu**, and then **Measurements**, and then **Report** to search for relevant measurements. Select, but not limited to, "SBR Binding Exception" Measurement Group for the measurements directly related to this error.

A.6 Error Code 511

Associated Error Category

Binding Found But Unable To Route

Description

A slave session could not be routed because, on polling the master, sessionRef was no longer in the binding database.

Associated P-DRA Alarm/Event

N/A

Associated Measurement

[SbrSlavePollingFail](#)

Associated Diameter Interface / Message Type

- Gx/Gxx CCR-I
- Rx AAR
- Gx-Prime CCR-I

GUI Configurable

Yes

Recovery

1. See *Early binding Processing with PCRF Pool* in the Error Resolution appendix of the *Policy and Charging Application User Guide* to investigate and understand the circumstances where the error occurs.
2. Go to the PCA SOAM GUI at **Main Menu**, and then **Status & Manage**, and then **Server** to check binding SBRs' status.

3. Get the measurement report from **Main Menu**, and then **Measurements**, and then **Report** to the frequency of the relevant measurements. Select, but not limited to, "SBR Binding Exception" Measurement Group to determine the frequency of the relevant measurements.

A.7 Error Code 512

Associated Error Category

Binding Found But Unable To Route

Description

A slave session could not be routed because, on polling the master, sessionRef was early too long.

Associated P-DRA Alarm/Event

N/A

Associated Measurement

[SbrEarlyTooLongSrRemoved](#)

Associated Diameter Interface / Message Type

- Gx/Gxx CCR-I
- Rx AAR
- Gx-Prime CCR-I

GUI Configurable

Yes

Recovery

1. Check *Early binding Processing with PCRF Pool* in the Error Resolution appendix of the *Policy and Charging Application User Guide* to investigate and understand the circumstances where the error occurs.
2. Go to the PCA SOAM GUI at **Main Menu**, and then **Status & Manage**, and then **Server** to obtain the Policy DRA DA-MP and binding SBR status.
3. Go to the **Main Menu**, and then **Alarms & Events**, and then **View History** to obtain the congestion alarm/event for Policy DRA DA-MP and/or binding SBR, if congestion occurs. Some congestion conditions may be released after a short while. The error may not persist after the congestion condition is gone.
4. Get the measurement report from **Main Menu**, and then **Measurements**, and then **Report** for, but not limited to, "SBR Binding Exception" and "Policy DRA Congestion" Measurement Groups.
5. Go to PCA NOAM GUI at **Main Menu**, and then **Policy and Charging**, and then **Configuration**, and then **Policy DRA**, and then **Network-Wide Options** to check the Maximum Early Binding Lifetime value. Re-configure the value if necessary.

 **Note:**

The measurement [SbrEarlyTooLongSrRemoved](#) indicates the frequency at which binding sessionRefs are discovered in an early state for longer than expected. This unexpected condition could occur if the binding SBR was in congestion and load shedding prevented the session from being transitioned from the early state to a final state. It could also occur if the Maximum Early Binding Lifetime value is configured to be nearly equal to or shorter than the Diameter transaction timer.

A.8 Error Code 513

Associated Error Category

Binding Found But Unable To Route

Description

A slave session could not be routed because, on polling the master, an internal error occurred.

Associated P-DRA Alarm/Event

N/A

Associated Measurement

[SbrSlavePollingFail](#)

Associated Diameter Interface / Message Type

- Gx/Gxx CCR-I
- Rx AAR
- Gx-Prime CCR-I

GUI Configurable

Yes

Recovery

1. Go to the PCA SOAM GUI at **Main Menu**, and then **Status & Manage**, and then **Server** to obtain the Policy DRA DA-MP and binding SBR status.
2. Go to the **Main Menu**, and then **Alarms & Events**, and then **View History** to obtain the congestion alarm/event for Policy DRA DA-MP and/or binding SBR, if congestion occurs. Some congestion conditions may be released after a short while. The error may not persist after the congestion condition is gone.
3. Go to Policy DRA SOAM GUI at **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **Connection Status** to check the server connection status. The error may be caused by a disconnection between the local and peer nodes that the message was retransmitted the maximum number of times without receiving a response.
4. Get the measurement report from **Main Menu**, and then **Measurements**, and then **Report** for, but not limited to, "ComAgent Exception," "Connection Congestion," "SBR Binding Exception" and "Policy DRA Congestion" Measurement Groups.

A.9 Error Code 503

Associated Error Category

No Usable Keys In Binding Dependent Message

Description

No binding key in Binding Key Priority GUI can be matched or no key is included in the binding dependent message.

Associated P-DRA Alarm/Event

Event 22706 - Binding Key Not Found In Diameter Message (refer to the *DSR Alarms and KPIs Reference* for details about this event)

Associated Measurement

[TxPdraAnswersGeneratedForDiameterErr](#)

Associated Diameter Interface / Message Type

- Rx AAR
- Gx-Prime CCR-I

GUI Configurable

Yes

Recovery

1. Check *AAR Processing* in the Error Resolution appendix of the *Policy and Charging Application User Guide* to investigate and understand the circumstances where the error occurs.
2. Go to PCA SOAM GUI at **Main Menu**, and then **Policy and Charging**, and then **Configuration**, and then **Policy DRA**, and then **Binding Key Priority** to verify if the binding key priorities are expected (for instance IMSI and IPv56 Address are expected, but MSISDN and IPv4 are displayed instead).
3. If the binding key priorities are not expected, reset the binding key priority in this screen properly.
4. If the binding key priority are expected, check the validity of the received Request message as follows:
 - AVP carrying the expected key is present in the message
 - AVP carrying the expected key is correctly formed
 - AVP carrying the expected key is using a supported format (e.g. Subscription-ID AVP only Subscription-ID-Type of END_USER_E164 for MSISDN key and END_USER_IMSI for IMSI key).
5. Check the PCRA SOAM GUI at **Main Menu**, and then **Alarms & Events**, and then **View History** to search for all relevant alarms/events. The alarm Display Filter may be set as Timestamp to verify all alarms generated at the same time when the error occurred.
6. Get the measurement report from **Main Menu**, and then **Measurements**, and then **Report** for, but not limited to, "SBR Binding Exception," "SBR Session Exception," and "Policy DRA Diameter Exception" Measurement Groups.

A.10 Error Code 505

Associated Error Category

Binding Not Found

Description

Binding record is not found after examining all configured binding keys in Diameter message.

Associated P-DRA Alarm/Event

Event 22718 - Binding Not Found for Binding Dependent Session Initiate Request (refer to the *DSR Alarms and KPIs Reference* for more information)

Associated Measurement

[TxPdraAnswersGeneratedForPsbrErrResp](#)

Associated Diameter Interface / Message Type

- Rx AAR
- Gx-Prime CCR-I

GUI Configurable

Yes

Recovery

1. Check *AAR Processing* in the Error Resolution appendix of the *Policy and Charging Application User Guide* to investigate and understand the circumstances where the error occurs.
2. Go to Policy SRA SOAM GUI at **Main Menu**, and then **Policy and Charging**, and then **Configuration**, and then **Policy DRA**, and then **Binding Key Priority** to verify if the binding key priorities are expected (for instance IMSI and IPv56 Address are expected, but MSISDN and IPv4 are displayed instead).
3. If the binding key priorities are not expected, reset the binding key priority in this screen properly.
4. If the binding key priority are expected, check the validity of the received Request message as follows:
 - AVP carrying the expected key is present in the message
 - AVP carrying the expected key is correctly formed
 - AVP carrying the expected key is using a supported format (e.g. Subscription-ID AVP only Subscription-ID-Type of END_USER_E164 for MSISDN key and END_USER_IMSI for IMSI key).
5. Go to Policy DRANOAM GUI at **Main Menu**, and then **Policy DRA**, and then **Maintenance**, and then **Policy Database Query** to query the IMSI key to find all alternate keys. If alternate records exist, compare the keys from the database to the keys in the request message to see if they match exactly (e.g. no extra digits or characters, etc.)
6. Check the Policy DRA SOAM GUI at **Main Menu**, and then **Alarms & Events**, and then **View History** to search for all relevant alarms/events. The alarm Display Filter may be set as Timestamp to verify all alarms generated at the same time when the error occurred.

7. Get the measurement report from **Main Menu**, and then **Measurements**, and then **Report** for, but not limited to, "SBR Binding Exception," "SBR Session Exception," and "Policy DRA Diameter Exception" Measurement Groups.

A.11 Error Code 507

Associated Error Category

SBR Error

Description

SBR Error - ComAgent timeout

Associated P-DRA Alarm/Event

Event 22704 - Communication Agent Error

Associated Measurement

[TxPdraErrAnsGeneratedCAFailure](#)

Associated Diameter Interface / Message Type

- Gx CCR-I, CCR-U, and CCR-T
- Rx AAR, STR
- Gx-Prime CCR-I, CCR-U, and CCR-T

GUI Configurable

Yes

Recovery

1. Check *findSessionRef Processing*, *findOrCreateBindingResult Processing*, *findOrCreateBinding Response Processing with PCRF Pool*, *findSession Response Processing*, and *AAR Processing* in the Error Resolution appendix of the *Policy and Charging Application User Guide* to investigate and understand the circumstances where the error occurs.
2. Go to Policy DRA SOAM GUI at **Main Menu**, and then **Communication Agent**, and then **Maintenance**, and then **Connection Status** to check the server connection status. The error may be caused by a disconnection between the local and peer nodes that the message was retransmitted the maximum number of times without receiving a response. Also check the Communication Agent Service status screen that corresponds to the ServiceID in the event instance to troubleshoot the operation of the service.
3. Get the measurement report from **Main Menu**, and then **Measurements**, and then **Report** for, but not limited to, "ComAgent Exception," "Connection Congestion," "SBR Binding Exception," and "Policy DRA Congestion" Measurement Groups.
4. Check the **Main Menu**, and then **Alarms & Events**, and then **View History** and set the Display Filter by Events (in particular, 19810 - Communication Agent Egress Message Discarded, 19811 - Communication Agent Ingress Message Discarded, 19814 - Communication Agent Peer has not responded to heartbeat, 19832 - Communication Agent Reliable Transaction Failed, 19833 - Communication Agent Service Egress Message Discarded, 22712 - Policy SBR Communication Error, 22722 - Policy DRA Binding Sub-resource Unavailable, and 22723 - Policy DRA Session Sub-resource Unavailable. Refer to the *DSR Alarms and KPIs Reference* for details about these events.

A.12 Error Code 508

Associated Error Category

SBR Error

Description

SBR Error - SBR database error prevents SBR from reading, writing, or deleting a record

Associated P-DRA Alarm/Event

Event 22711 - SBR Database Error (refer to the *DSR Alarms and KPIs Reference* for details about this event)

Associated Measurement

[TxPdraAnswersGeneratedForPsbrErrResp](#)

Associated Diameter Interface / Message Type

- Gx CCR-I, CCR-U, and CCR-T
- Rx AAR, STR
- Gx-Prime CCR-I, CCR-U, and CCR-T

GUI Configurable

Yes

Recovery

1. Check *findSessionRef Processing*, *findOrCreateBindingResult Processing*, *findOrCreateBinding Response Processing with PCRF Pool*, *findSession Response Processing*, and *AAR Processing* in the Error Resolution appendix of the *Policy and Charging Application User Guide* to investigate and understand the circumstances where the error occurs.
2. Go to PCA NOAM GUI at **Main Menu**, and then **Policy and Charging**, and then **Maintenance**, and then **SBR Status** to verify the status of binding and session SBR servers.
3. Check the **Main Menu**, and then **Alarms & Events**, and then **View History** and set the Display Filter by Events (in particular, 22711 - SBR Database Error). The table, operation, and key value of the SBR DB where the error may occur will be indicated as well.
4. Get the measurement report from **Main Menu**, and then **Measurements**, and then **Report** for, but not limited to, "SBR Binding Exception" and "SBR Session Exception" Measurement Groups.

A.13 Error Code 520

Associated Error Category

SBR Error

Description

SBR PCRF Configuration Error - binding capable session initiation request received, but not PCRFs are configured at the site.

Associated P-DRA Alarm/Event

Alarm 22730 - Policy and Charging Configuration Error

Associated Measurement

[TxPdraAnswersGeneratedConfigErr](#)

Associated Diameter Interface / Message Type

Gx CCR-I

GUI Configurable

Yes

Recovery

1. Check *findOrCreateBinding Response Processing with PCRF Pool* in the Error Resolution appendix of the *Policy and Charging Application User Guide* to investigate and understand the circumstances where the error occurs.
2. Check the **Main Menu**, and then **Alarms & Events**, and then **View History** and set the Display Filter by Events (in particular, 22730 - Policy and Charging Configuration Error).
3. If Alarm 22730 - Policy and Charging Configuration Error indicates that no PCRFs are configured, configure PCRFs at the SOAM GUI at **Main Menu**, and then **Policy and Charging**, and then **Configuration**, and then **Policy DRA**, and then **PCRFs**.

A.14 Error Code 521

Associated Error Category

SBR Error

Description

SBR Error - maximum number of Sessions per Binding is Exceeded that fails the binding creation for given IMSI of MSISDN key.

Associated P-DRA Alarm/Event

Event 22719 - Maximum Number of Sessions per Binding Exceeded (refer to the *DSR Alarms and KPIs Reference* for details about this event)

Associated Measurement

[TxPdraAnswersGeneratedForPsbrErrResp](#)

Associated Diameter Interface / Message Type

Gx CCR-I, CCR-U, and CCR-T

GUI Configurable

Recovery

1. Check *findOrCreateBindingResult Processing* and *findOrCreateBinding Response Processing with PCRF Pool* in the Error Resolution appendix of the *Policy and Charging Application User Guide* to investigate and understand the circumstances where the error occurs.
2. Check the **Main Menu**, and then **Alarms & Events**, and then **View History** and set the Display Filter by Events (in particular, 22719 - Maximum Number of Sessions per Binding Exceeded).

3. Go to PCA NOAM GUI at **Main Menu**, and then **Policy and Charging**, and then **Maintenance**, and then **Policy Database Query** by using Event 22719 - Maximum Number of Sessions per Binding Exceeded to get all the information about session, including session-ids and PCEF FQDNs, to determine if the session is valid.
4. If the sessions exist in the Policy DRA, but not on the PCEF(s), contact [#unique_131](#) for assistance.

A.15 Error Code 504

Associated Error Category

Policy SBR Error

Description

ComAgent resource unavailable when sending stack event to pSBR.

Associated P-DRA Alarm/Event

Event 22704 - Communication Agent Error (refer to the *DSR Alarms and KPIs Reference* for details about this event)

Associated Measurement

[TxPdraErrAnsGeneratedCAFailure](#)

Associated Diameter Interface / Message Type

- Gx CCR-I, CCR-U, and CCR-T
- Rx AAR, STR
- Gx-Prime CCR-I, CCR-U, and CCR-T

GUI Configurable

Yes

Recovery

1. Check *CCR-I Processing with PCRF Pool* in the Error Resolution appendix of the *Policy and Charging Application User Guide* to investigate and understand the circumstances where the error occurs.
2. Check the **Main Menu**, and then **Alarms & Events**, and then **View History** and set the Display Filter by Events (in particular, 19810 - Communication Agent Egress Message Discarded, 19811 - Communication Agent Ingress Message Discarded, 19814 - Communication Agent Peer has not responded to heartbeat, 19832 - Communication Agent Reliable Transaction Failed, 19833 - Communication Agent Service Egress Message Discarded, and 22712 - Policy SBR Communication Error). Refer to the *DSR Alarms and KPIs Reference* for details about these events.
3. Check the PCA NOAM GUI at **Main Menu**, and then **Policy and Charging**, and then **Maintenance**, and then **SBR Status** to verify the status of the binding SBR, session SBR, and related resources/sub-resources (Resource HA Role, Congestion Level, etc.)
4. Go to **Main Menu**, and then **Communication Agent**, and then **Maintenance** to verify Connection Status, Routed Services Status, and HA Services Status for resolving ComAgent unavailability.

A.16 Error Code 509

Associated Error Category

Session Not Found

Description

Session Not Found - session record doesn't exist for given session ID.

Associated P-DRA Alarm/Event

Event 22705 - SBR Error Response Received By Policy DRA (refer to the *DSR Alarms and KPIs Reference* for details about this event)

Associated Measurement

[SbrFindSessDbErr](#)

Associated Diameter Interface / Message Type

- Gx CCR-I, CCR-U, and CCR-T
- Rx AAR, STR
- Gx-Prime CCR-I, CCR-U, and CCR-T

GUI Configurable

Yes

Recovery

1. Check *findSession Response Processing* and *AAR Processing* in the Error Resolution appendix of the *Policy and Charging Application User Guide* to investigate and understand the circumstances where the error occurs.
2. Check the **Main Menu**, and then **Alarms & Events**, and then **View History** and set the Display Filter by Events (in particular, 22716 - SBR Audit Statistics Report to find the Session table to see if sessions were removed by audit.
3. Get the measurement report from **Main Menu**, and then **Measurements**, and then **Report** for, but not limited to, measurements [SbrExpiredSessionsFound](#), [SbrCreateSessDbErr](#), and [SbrRemSessRarAttempts](#).
4. Check if topology hiding applies to the policy client.

Note:

All checks may help to determine whether the session was never created, or was created, but removed by audit.

A.17 Error Code 305

Associated Error Category

Policy DRA Unavailable or Degraded

Description

Policy DRA Unavailable

Associated P-DRA Alarm/Event

Alarm 22500 - DSR Application Unavailable (refer to the *DSR Alarms and KPIs Reference* for details about this alarm)

Associated Measurement

[RxApplUnavailableForRequest](#)

Associated Diameter Interface / Message Type

- All Gx requests
- All Rx Requests
- All Gx-Prime Requests

GUI Configurable

Yes

Recovery

1. Go to the P-DRA SOAM GUI at **Main Menu**, and then **Diameter**, and then **Maintenance**, and then **Applications** to verify Policy DRA's admin state is set as expected.
2. Check the **Main Menu**, and then **Diameter**, and then **Maintenance**, and then **Applications** to verify Policy DRA's Operational Status and Congestion Level. Policy DRA's Operational Status is "Unavailable" when the operator has removed Policy DRA from service (Admin State is "Disabled").
3. Check **Main Menu**, and then **Alarms & Events**, and then **View History** for relevant events or alarms related to this DA-MP server.
4. Get the measurement report from **Main Menu**, and then **Measurements**, and then **Report** for, but not limited to, measurement [RxApplUnavailableForAnswer](#).

A.18 Error Code 305

Associated Error Category

Policy DRA Unavailable or Degraded

Description

Policy DRA Degraded

Associated P-DRA Alarm/Event

Alarm 22501 - DSR Application Degraded (refer to the *DSR Alarms and KPIs Reference* for details about this alarm)

Associated Measurement

[RxApplUnavailableForRequest](#)

Associated Diameter Interface / Message Type

- All Gx requests
- All Rx Requests
- All Gx-Prime Requests

GUI Configurable

Yes

Recovery

1. Go to the P-DRA SOAM GUI at **Main Menu**, and then **Diameter**, and then **Maintenance**, and then **Applications** to verify Policy DRA's admin state is set as expected.
2. Check the **Main Menu**, and then **Diameter**, and then **Maintenance**, and then **Applications** to verify Policy DRA's Operational Status and Congestion Level. Policy DRA's Operational Status is "Unavailable" when the operator has removed Policy DRA from service (Admin State is "Disabled").
3. Check **Main Menu**, and then **Alarms & Events**, and then **View History** for relevant events or alarms related to this DA-MP server.
4. Get the measurement report from **Main Menu**, and then **Measurements**, and then **Report** for, but not limited to, measurement [RxApplUnavailableForAnswer](#).

A.19 Error Code 522

Associated Error Category

Session ID is missing from Request

Description

Session ID is missing from Request

Associated P-DRA Alarm/Event

Event 22700 - Protocol errors in Diameter Requests (refer to the *DSR Alarms and KPIs Reference* for details about this event)

Associated Measurement

[RxPdraRequestProtocolErr](#)

Associated Diameter Interface / Message Type

- All Gx requests
- All Rx Requests
- All Gx-Prime Requests

GUI Configurable

No (Result Code 5005)

Recovery

1. Check *Diameter Message Validation* and *CCR-I Processing without PCRF Pool* in the Error Resolution appendix of the *Policy and Charging Application User Guide* to investigate and understand the circumstances where the error occurs.
2. Go to the Policy DRA SOAM GUI at **Main Menu**, and then **Alarms & Events**, and then **View History** and set the Display Filter by Events (in particular, 22700 - Protocol errors in Diameter Requests).
3. Use the Origin-Host value of the received Request found in 22700 - Protocol errors in Diameter Requests to understand from where the Request was sent.
4. Get the measurement report from **Main Menu**, and then **Measurements**, and then **Report** for, but not limited to, "Diameter Exception," "DSR Application Exception," and "Policy DRA Diameter Exception" Measurement Groups.

A.20 Error Code 523

Associated Error Category

CC-Request-Type AVP is missing from CCR message

Description

CC-Request-Type AVP is missing from CCR message

Associated P-DRA Alarm/Event

Event 22700 - Protocol errors in Diameter Requests (refer to the *DSR Alarms and KPIs Reference* for details about this event)

Associated Measurement

[RxPdraRequestProtocolErr](#)

Associated Diameter Interface / Message Type

Gx CCR-I, CCR-U, and CCR-T

GUI Configurable

No (Result Code 5005)

Recovery

1. Check *CCR Processing* in the Error Resolution appendix of the *Policy and Charging Application User Guide* to investigate and understand the circumstances where the error occurs.
2. Go to the Policy DRA SOAM GUI at **Main Menu**, and then **Alarms & Events**, and then **View History** and set the Display Filter by Event (in particular, 22700 - Protocol errors in Diameter Requests).
3. Use the Origin-Host value of the received Request found in 22700 - Protocol errors in Diameter Requests to understand from where the Request was sent.
4. Get the measurement report from **Main Menu**, and then **Measurements**, and then **Report** for, but not limited to, "Diameter Exception," "DSR Application Exception," and "Policy DRA Diameter Exception" Measurement Groups.

A.21 Error Code 525

Associated Error Category

Invalid AVP value in request message

Description

Invalid AVP value in request message

Associated P-DRA Alarm/Event

Event 22700 - Protocol errors in Diameter Requests (refer to the *DSR Alarms and KPIs Reference* for details about this event)

Associated Measurement

[RxPdraRequestProtocolErr](#)

Associated Diameter Interface / Message Type

- All Gx requests
- All Rx Requests
- All Gx-Prime Requests

GUI Configurable

No (Result Code 5004)

Recovery

1. Check *CCR Processing* in the Error Resolution appendix of the *Policy and Charging Application User Guide* to investigate and understand the circumstances where the error occurs.
2. Go to the Policy DRA SOAM GUI at **Main Menu**, and then **Alarms & Events**, and then **View History** and set the Display Filter by Events (in particular, 22700 - Protocol errors in Diameter Requests).
3. Use the Origin-Host value of the received Request found in 22700 - Protocol errors in Diameter Requests to understand from where the Request was sent.
4. Get the measurement report from **Main Menu**, and then **Measurements**, and then **Report** for, but not limited to, "Diameter Exception," "DSR Application Exception," and "Policy DRA Diameter Exception" Measurement Groups.

A.22 Error Code 506

Associated Error Category

Destination-Host AVP is missing in in-session request

Description

Destination-Host AVP is missing in in-session request

Associated P-DRA Alarm/Event

Event 22700 - Protocol errors in Diameter Requests (refer to the *DSR Alarms and KPIs Reference* for details about this event)

Associated Measurement

[RxPdraRequestProtocolErr](#)

Associated Diameter Interface / Message Type

- Gx CCR-U and CCR-T
- Rx AAR, STR
- Gx-Prime CCR-U, and CCR-T

GUI Configurable

No (Result Code 5012)

Recovery

1. Check *STR Processing* and *ASR/ASA Processing* in the Error Resolution appendix of the *Policy and Charging Application User Guide* to investigate and understand the circumstances where the error occurs.

2. Go to the Policy DRA SOAM GUI at **Main Menu**, and then **Alarms & Events**, and then **View History** and set the Display Filter by Event (in particular, 22700 - Protocol errors in Diameter Requests).
3. Use the Origin-Host value of the received Request found in 22700 - Protocol errors in Diameter Requests to understand from where the Request was sent.
4. Get the measurement report from **Main Menu**, and then **Measurements**, and then **Report** for, but not limited to, "Diameter Exception," "DSR Application Exception," and "Policy DRA Diameter Exception" Measurement Groups.

A.23 Error Code 530

Associated Error Category

Unsupported Application ID

Description

Application ID unsupported by Policy DRA

Associated P-DRA Alarm/Event

Event 22700 - Protocol errors in Diameter Requests (refer to the *DSR Alarms and KPIs Reference* for details about this event)

Associated Measurement

[RxPdraRequestProtocolErr](#)

Associated Diameter Interface / Message Type

Diameter Requests

GUI Configurable

No (Result Code 3007)

Recovery

1. Check *Diameter Message Validation* in the Error Resolution appendix of the *Policy and Charging Application User Guide* to investigate and understand the circumstances where the error occurs.
2. Go to the Policy and Charging SOAM GUI at **Main Menu**, and then **Alarms & Events**, and then **View History** and set the Display Filter by Events (in particular, Event 22700 - Protocol errors in Diameter Requests).
3. Use the Origin-Host value of the received Request found in Event 22700 - Protocol errors in Diameter Requests to understand from where the Request was sent.
4. Get the measurement report from **Main Menu**, and then **Measurements**, and then **Report** for, but not limited to, "Diameter Exception," "DSR Application Exception," and "Policy DRA Diameter Exception" Measurement Groups.

A.24 Error Code 531

Associated Error Category

Command Code and App ID no match

Description

Command Code doesn't match the App ID or doesn't exist

Associated P-DRA Alarm/Event

Event 22700 - Protocol errors in Diameter Requests (refer to the *DSR Alarms and KPIs Reference* for details about this event)

Associated Measurement

[RxPdraRequestProtocolErr](#)

Associated Diameter Interface / Message Type

Diameter Requests

GUI Configurable

No (Result Code 5019)

Recovery

1. Check *Diameter Message Validation* in the Error Resolution appendix of the *Policy and Charging Application User Guide* to investigate and understand the circumstances where the error occurs.
2. Go to the Policy DRA SOAM GUI at **Main Menu**, and then **Alarms & Events**, and then **View History** and set the Display Filter by Events (in particular, Event 22700 - Protocol errors in Diameter Requests).
3. Use the Origin-Host value of the received Request found in Event 22700 - Protocol errors in Diameter Requests to understand from where the Request was sent.
4. Get the measurement report from **Main Menu**, and then **Measurements**, and then **Report** for, but not limited to, "Diameter Exception," "DSR Application Exception," and "Policy DRA Diameter Exception" Measurement Groups.