

# Oracle® Communications Diameter Signaling Router Measurement Reference Guide



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# My Oracle Support

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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.

# What's New in This Guide

This section introduces the documentation updates for release 9.3.1.0.0.

## **Release 9.3.1.0.0 - G58392-01, August 2026**

Added [vSTP Linkset Usage](#) in the measurements section.

# 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

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[support/contact/index.html](https://support.oracle.com/support/contact/index.html). When calling, make the selections in the sequence shown below on the Support telephone menu:

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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                                                                   | Must be a valid hostname or a valid IP address.<br><br>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.<br><br>To clear the current export server and remove the file transfer task, specify an empty hostname and username.<br><br>Default: None |
| Username                   | Username used to access the export server                                               | Format: Textbox<br><br>Range: Maximum length is 32 characters; alphanumeric characters (a-z, A-Z, and 0-9).<br><br>To clear the current export server and remove the file transfer task, specify an empty hostname and username.<br><br>Default: None                                                                                                   |
| Directory on Export Server | Directory path on the export server where the exported data files are to be transferred | Format: Textbox<br><br>Range: Maximum length is 255 characters; valid value is any UNIX string.<br><br>Default: None                                                                                                                                                                                                                                    |

**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<br>Range: Maximum length is 4096 characters; alphanumeric characters (a-z, A-Z, and 0-9), dash, underscore, period, and forward slash.<br>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<br>Default: Disabled (unchecked)                                                                                                                                                                                                      |
| File Compression               | Compression algorithm used when exported data files are initially created on the local host                                                                                             | Format: Option<br>Range: gzip, bzip2, or none<br>Default: gzip                                                                                                                                                                                         |
| Upload Frequency               | Frequency at which the export occurs                                                                                                                                                    | Format: Option<br>Range: fifteen minutes, hourly, daily or weekly<br>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<br>Range: 0 to 59<br>Default: zero                                                                                                                                                                                              |
| Time of Day                    | If the Upload Frequency is Daily of Weekly, this is the time of day the export occurs                                                                                                   | Format: Time textbox<br>Range: HH:MM AM/PM in 15-minute increments<br>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<br>Range: Sunday through Saturday<br>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                                                                                                                                                                                                                                         |
| 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**.

For details on **Hostname** fields that display on this page, see [Data Export elements](#).

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**.

- Hourly: Allows to specify the upload frequency in minutes.
- Daily: Allows to select the upload frequency in which time of the day.
- Weekly: Allows to select the upload frequency in which day of the week.

9. 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.

10. 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.

11. 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.

12. 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.

#### ① 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).

#### ① 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<br>Range: Varies depending on application<br>Interval: Day, Fifteen Minutes, Five Minutes, Half Hour, Hour<br>Default: None                                                                                                                                                      |
| Scope   | Network Elements, Server Groups, Resource Domains, Places, and Place Associations for which the measurement report can be run. | Format: List<br>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<br><b>Note:</b> If no selection is made, the default scope is Entire Network.<br>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<br>Range: Sub-measurement<br>Sub-measurement Ranges: <ul style="list-style-type: none"> <li>Like: A pattern-matching distinction for sub-measurement name, for example, 123* matches any sub-measurement that begins with 123.</li> <li>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.</li> </ul> Default: None |
| Time Range    | The interval of time for which the data is being reported, beginning or ending on a specified date. | Format: List<br>Range: Days, Hours, Minutes, Seconds<br>Interval Reference Point: Ending, Beginning<br>Default: Days                                                                                                                                                                                                                                                                                              |

### 3.1.3 Generating a Measurements Report

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   | NA                    | Single  | 5                      |
|                                | NA                    | Arrayed | 15                     |
| Address Resolution Performance | NA                    | Single  | 4                      |
|                                | NA                    | Arrayed | 21                     |
| Application Routing Rules      | MeasARTId             | Arrayed | 1                      |
|                                | MeasApplRoutingRuleId | Arrayed | 4                      |

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

| Report Group           | Sub-Group                               | Type    | Number of Measurements |
|------------------------|-----------------------------------------|---------|------------------------|
| Association Exception  | NA                                      | Arrayed | 4                      |
| Association Usage      | NA                                      | Arrayed | 1                      |
| CAPM                   | MeasCapmDefId                           | Arrayed | 5                      |
|                        | MeasCapmMeasId                          | Arrayed | 1                      |
|                        | MeasConnectionId                        | Arrayed | 4                      |
| CPA Exception          | NA                                      | Single  | 11                     |
|                        | NA                                      | Arrayed | 2                      |
| CPA Performance        | NA                                      | Single  | 14                     |
| CPA Session DB         | NA                                      | Single  | 11                     |
|                        | NA                                      | 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                     |
| Connection Congestion  | NA                                      | Arrayed | 2                      |
| Connection Exception   | NA                                      | 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     | NA                                      | Arrayed | 7                      |

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

| Report Group                             | Sub-Group        | Type    | Number of Measurements |
|------------------------------------------|------------------|---------|------------------------|
| Connection Transport                     | NA               | Arrayed | 13                     |
| DA-MP Exception                          | NA               | Single  | 2                      |
| DA-MP Performance                        | NA               | Single  | 211                    |
|                                          | NA               | Arrayed | 4                      |
| DA-MP Service                            | NA               | Single  | 2                      |
| DAS                                      | NA               | Single  | 14                     |
|                                          |                  | Arrayed | 1                      |
| DCA Framework Exception                  | DcaDalld         | Arrayed | 5                      |
| DCA Framework Performance                | DcaDalld         | Arrayed | 21                     |
| DSR Application Exception                | NA               | Single  | 4                      |
|                                          | NA               | Arrayed | 3                      |
| DSR Application Performance              | NA               | Single  | 14                     |
|                                          | NA               | Arrayed | 5                      |
| Diameter EIR Exception                   | NA               | Single  | 23                     |
| Diameter EIR Performance                 | NA               | Single  | 5                      |
|                                          | NA               | Arrayed | 4                      |
| Diameter EIR Usage                       | NA               | Single  | 31                     |
| Diameter Egress Transaction              | NA               | Single  | 2                      |
|                                          | NA               | Arrayed | 8                      |
| Diameter Exception                       | NA               | Single  | 3                      |
|                                          | NA               | Arrayed | 6                      |
| Diameter Ingress Transaction Exception   | NA               | Single  | 3                      |
|                                          | NA               | Arrayed | 10                     |
| Diameter Ingress Transaction Performance | NA               | Arrayed | 8                      |
| Diameter Performance                     | NA               | Single  | 6                      |
|                                          | MeasConnectionId | Arrayed | 6                      |
| Diameter Rerouting                       | NA               | Single  | 2                      |
|                                          | NA               | Arrayed | 6                      |
| Egress Throttle Group Performance        | NA               | Arrayed | 168                    |
| Egress Throttle List Performance         | NA               | Arrayed | 167                    |
| Full Address Resolution Exception        | NA               | Single  | 5                      |
|                                          | NA               | Arrayed | 15                     |
| Full Address Resolution Performance      | NA               | Single  | 10                     |
|                                          | NA               | Arrayed | 14                     |
| IDIH                                     | NA               | Single  | 7                      |
| IPFE Exception                           | IpfeTotal        | Single  | 2                      |
|                                          | IpfeTsa          | Arrayed | 6                      |
| IPFE Performance                         | IpfeMpServer     | Arrayed | 6                      |

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

| Report Group                | Sub-Group             | Type    | Number of Measurements |
|-----------------------------|-----------------------|---------|------------------------|
| License Measurements        | IpfeTotal             | Single  | 5                      |
|                             | IpfeTsa               | Arrayed | 6                      |
|                             | NA                    | Single  | 15                     |
|                             | NA                    | Arrayed | 14                     |
| Link Exception              | NA                    | Arrayed | 4                      |
| Link Performance            | NA                    | Arrayed | 4                      |
| Link Set Performance        | NA                    | Arrayed | 4                      |
| Link Set Usage              | NA                    | Arrayed | 1                      |
| Link Usage                  | NA                    | Arrayed | 4                      |
| LoadGen Performance         | NA                    | Single  | 6                      |
| MP Performance              | NA                    | Single  | 11                     |
| Message Priority            | NA                    | Single  | 16                     |
| OAM.ALARM                   | NA                    | Single  | 4                      |
| OAM.SYSTEM                  | NA                    | Single  | 14                     |
|                             | NA                    | Arrayed | 2                      |
| OC-DRA Congestion Exception | NA                    | Arrayed | 1                      |
| OC-DRA Diameter Exception   | NA                    | Single  | 12                     |
|                             | NA                    | Arrayed | 13                     |
| OC-DRA Diameter Usage       | NA                    | Single  | 2                      |
|                             | NA                    | Arrayed | 4                      |
|                             | HistogramMeasBuckets  | Arrayed | 2                      |
| P-DRA Congestion Exception  | NA                    | Single  | 6                      |
| P-DRA Diameter Exception    | NA                    | Single  | 23                     |
|                             | NA                    | Arrayed | 1                      |
| P-DRA Diameter Usage        | NA                    | 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        | NA                    | Single  | 3                      |
| PCA NGN-PS Performance      | NA                    | Single  | 1                      |
| Peer Node Performance       | NA                    | Arrayed | 5                      |
| Peer Routing Rules          | MeasPRTId             | Arrayed | 1                      |
|                             | MeasPeerRoutingRuleId | Arrayed | 4                      |
| RD-IWF Performance          | NA                    | Single  | 7                      |
| Route Group Exception       | NA                    | Arrayed | 2                      |



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

| Report Group            | Sub-Group               | Type    | Number of Measurements |
|-------------------------|-------------------------|---------|------------------------|
| Route Group Performance | NA                      | Arrayed | 21                     |
| Route List              | NA                      | Arrayed | 4                      |
| Routing Usage           | NA                      | Arrayed | 5                      |
| SBR Audit               | NA                      | Single  | 31                     |
| SBR Binding Exception   | NA                      | Single  | 11                     |
|                         | NA                      | Arrayed | 1                      |
| SBR Binding Performance | NA                      | Single  | 18                     |
|                         | NA                      | Arrayed | 1                      |
|                         | MeasAltKeys             | Arrayed | 1                      |
|                         | MeasBuckets             | Arrayed | 2                      |
|                         | MeasSBRemoval           | Arrayed | 1                      |
| SBR Exception           | NA                      | Single  | 4                      |
|                         | NA                      | Arrayed | 6                      |
| SBR Performance         | NA                      | Single  | 15                     |
|                         | NA                      | Arrayed | 4                      |
| SBR Session Exception   | NA                      | Single  | 11                     |
|                         | MeasPendingRarDel       | Arrayed | 1                      |
| SBR Session Performance | NA                      | Single  | 18                     |
|                         | NA                      | Arrayed | 2                      |
|                         | MeasApn                 | Arrayed | 2                      |
|                         | MeasBuckets             | Arrayed | 3                      |
|                         | MeasInvokeSisRarType    | Arrayed | 1                      |
|                         | MeasInvokeSisResult     | Arrayed | 1                      |
|                         | MeasSessionsRemoved Sis | Arrayed | 1                      |
| Server Exception        | NA                      | Single  | 2                      |
| Server M3UA Exception   | NA                      | Single  | 6                      |
| Server M3UA Performance | NA                      | Single  | 8                      |
| Server M3UA Usage       | NA                      | Single  | 7                      |
| Server MTP3 Exception   | NA                      | Single  | 9                      |
|                         | NA                      | Arrayed | 1                      |
| Server MTP3 Performance | NA                      | Single  | 4                      |
|                         | NA                      | Arrayed | 2                      |
| Server Resource Usage   | NA                      | Single  | 8                      |
| Server SCCP Exception   | NA                      | Single  | 28                     |
|                         | NA                      | Arrayed | 1                      |
| Server SCCP Performance | NA                      | Single  | 18                     |
|                         | NA                      | Arrayed | 4                      |
| Server TCAP Exception   | NA                      | Single  | 19                     |
|                         | NA                      | Arrayed | 1                      |

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

| Report Group                                    | Sub-Group | Type    | Number of Measurements |
|-------------------------------------------------|-----------|---------|------------------------|
| Server TCAP Performance                         | NA        | Single  | 8                      |
|                                                 | NA        | Arrayed | 2                      |
| Task Performance                                | NA        | Arrayed | 33                     |
| SS7 Exception measurements                      | NA        | NA      | NA                     |
| SS7 Performance measurements                    | NA        | NA      | NA                     |
| Topology Hiding Performance                     | NA        | Single  | 10                     |
|                                                 | NA        | Arrayed | 10                     |
| Traffic Throttle Group Performance              | NA        | Arrayed | 23                     |
| Traffic Throttle Point Performance              | NA        | Arrayed | 139                    |
| Transport Exception                             | NA        | Arrayed | 10                     |
| Transport Performance                           | NA        | Arrayed | 12                     |
| Transport Usage                                 | NA        | Arrayed | 2                      |
| Traffic Throttle Group Performance measurements | NA        | NA      | NA                     |
| Traffic Throttle Point Performance Measurements | NA        | NA      | NA                     |
| USBR Performance                                | NA        | Single  | 1                      |
|                                                 | NA        | Arrayed | 10                     |
| vSTP Association Exception                      | NA        | Arrayed | 13                     |
| vSTP Association Usages                         | NA        | Arrayed | 3                      |
| vSTP IDPR Performance measurements              | NA        | Single  | 36                     |
| vSTP CDPA TT                                    | NA        | Arrayed | 10                     |
| vSTP CGPA TT                                    | NA        | Arrayed | 10                     |
| vSTP Connection                                 | NA        | Arrayed | 9                      |
| vSTP Connection Exception                       | NA        | Single  | 1                      |
| vSTP Connection Performance                     | NA        | Arrayed | 10                     |
| vSTP EIR Exception                              | NA        | Single  | 7                      |
| vSTP EIR Performance                            | NA        | Single  | 27                     |
|                                                 | NA        | Arrayed | 1                      |
|                                                 | NA        |         |                        |
| vSTP GFLEX Exception                            | NA        | Single  | 2                      |
| vSTP GFLEX Performance                          | NA        | Single  | 1                      |
| vSTP ISUP Exception                             | NA        | Single  | 9                      |

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

| Report Group             | Sub-Group                      | Type               | Number of Measurements |
|--------------------------|--------------------------------|--------------------|------------------------|
| vSTP ISUP Performance    | NA                             | Single             | 5                      |
| vSTP MP Performance      | NA                             | Single             | 6                      |
| vSTP LICENSING           | NA                             | Single             | 4                      |
|                          | NA                             | Arrayed            | 2                      |
| vSTP LSS Exception       | NA                             | Single             | 6                      |
| vSTP LSS Performance     | NA                             | Single             | 4                      |
|                          | NA                             | Arrayed            | 1                      |
| vSTP Link Exception      | NA                             | Arrayed            | 12                     |
| vSTP Link Performance    | NA                             | Arrayed            | 11                     |
| vSTP Link Usage          | NA                             | Arrayed            | 12                     |
| vSTP Linkset Exception   | NA                             | Arrayed            | 1                      |
| vSTP Linkset Performance | NA                             | Arrayed            | 7                      |
| vSTP Linkset Usage       | NA                             | Arrayed            | 1                      |
|                          | NA                             | Arrayed            | 1                      |
|                          | NA                             | Arrayed            | 1                      |
| vSTP M2PA Exception      | VSTPM2PAExceptionArrayed       | Arrayed            | 1                      |
|                          | VSTPM2PAExceptionSingle        | Single             | 2                      |
|                          | VSTPM2PAExceptionVsLinkArrayed | Arrayed            | 14                     |
| vSTP M2PA Performance    | NA                             | Single             | 9                      |
|                          | NA                             | Arrayed            | 4                      |
| vSTP M3UA Exception      | NA                             | Single             | 9                      |
| vSTP M3UA Performance    | NA                             | Single             | 4                      |
| vSTP M3UA Usage          | NA                             | Single             | 27                     |
| vSTP MNP Exception       | NA                             | Single             | 11                     |
| vSTP MNP Performance     | NA                             | Single             | 19                     |
|                          | NA                             | Arrayed            | 1                      |
| vSTP MTP2 Performance    | NA                             | Single             | 5                      |
|                          | NA                             | Arrayed            | 1                      |
| vSTP MTP2 Exception      | NA                             | Arrayed by Link ID | 12                     |
| vSTP MTP3 Exception      | NA                             | Single             | 13                     |
|                          | NA                             | Arrayed            | 5                      |
| vSTP MTP3 Performance    | NA                             | Single             | 12                     |
|                          | NA                             | Arrayed            | 7                      |
| vSTP SCCP Exception      | NA                             | Single             | 12                     |
|                          | NA                             | Arrayed            | 4                      |
| vSTP SCCP Performance    | NA                             | Single             | 36                     |
|                          | NA                             | Arrayed            | 16                     |
| vSTP SCCP Usages         | NA                             | Single             | 1                      |
| vSTP Server Exception    | NA                             | Single             | 5                      |
| vSTP Server Usage        | NA                             | Single             | 4                      |

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

| Report Group               | Sub-Group | Type    | Number of Measurements |
|----------------------------|-----------|---------|------------------------|
| vSTP MNP Exception         | NA        | Single  | 2                      |
| vSTP MNP Performance       | NA        | Single  | 3                      |
| vSTP SFAPP Performance     | NA        | Single  | 22                     |
|                            |           | Arrayed | 5                      |
| vSTP SFAPP Exception       | NA        | Single  | 9                      |
| vSTP SMS Proxy Performance | NA        | Arrayed | 7                      |
|                            |           | Single  | 27                     |
| vSTP SMS Proxy Exception   | NA        | Arrayed | 11                     |
|                            | NA        | Single  | 22                     |
| vSTP GFLEX Performance     | NA        | Arrayed | 1                      |
|                            | NA        | Single  | NA                     |

Perform the following procedure to generate and view measurements report:

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. Select any filters you may want on the report (Optional).
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<br>Range: Day, Fifteen Minute, Five Minute, Half Hour, and Hour                                                                                                                                                                                                                                                                                             |
| Time Range       | A configurable element to manage report generation.                                                                                                   | Format: Options<br>Range: Days, Hours, Minutes, or Seconds<br>Default: Days                                                                                                                                                                                                                                                                                                 |
| Export Frequency | Frequency at which the export occurs                                                                                                                  | Format: Options<br>Range: Once, Fifteen Minutes, Hourly, Daily, or Weekly<br>Default: Once<br><b>Note:</b> 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<br>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<br>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<br>Range: Fifteen Minutes, Hourly, Once, Weekly, or Daily<br>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<br>Range: 0 to 59<br>Default: 0                                                                                                                                                                                                                                                                                                                      |
| Time of Day      | Time of day the export occurs.                                                                                                                        | Format: Time text box<br>Range: 15-minute increments<br>Default: 12:00 AM                                                                                                                                                                                                                                                                                                   |

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

| Element     | Description                             | Data Input Notes                                                                                                    |
|-------------|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Day of Week | Day of week on which the export occurs. | Format: Radio button<br>Range: Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, or Saturday<br>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 [Data Export](#).

#### **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:

- [Editing a scheduled task](#)
- [Deleting a scheduled task](#)
- [Generating a scheduled task report](#)

**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 [My Oracle Support](#).

## 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 to isolate reasons for failures:
  - [TxRbarAbandonRequest](#)
  - [RxRbarInvalidImsiMcc](#)
  - [RxRbarResolFailUnsigned16Match](#)
  - [RxRbarResolFailImpuMatch](#)
  - [RxRbarResolFailImpiMatch](#)
  - [RxRbarResolFailMsisdnMatch](#)
  - [RxRbarResolFailImsiMatch](#)
  - [RxRbarResolFailNoAddrAvps](#)
  - [RxRbarResolFailCmdcode](#)
  - [RxRbarResolFailAll](#)
  - [RxRbarDecodeFailureResol](#)
  - [RxRbarUnkApplId](#)
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 RxRbarResolIpv4

**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 RxRbarResolIpv6prefix

**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 [My Oracle Support](#), 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 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 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 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 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 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 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 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 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 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 [My Oracle Support](#) 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 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 .

### 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 .

### 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 .

## 3.6 Association Usage measurements

### 3.6.1 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, perform 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 for assistance if needed.

## 3.6.2 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 for assistance if needed.

### 3.6.3 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.

## 3.7 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.

### 3.7.1 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 for assistance.

### 3.7.2 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 for assistance.

### 3.7.3 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 for assistance.

## 3.7.4 CAHSTxDscredIntErrSR

**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 .

### 3.7.5 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 for assistance.

### 3.7.6 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 for assistance.

### 3.7.7 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. 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 [My Oracle Support](#) for assistance.

### 3.7.8 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.

### 3.7.9 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 for assistance.

### 3.7.10 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 for assistance.

### 3.7.11 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 for assistance.

### 3.7.12 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.

### 3.7.13 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 for assistance.

### 3.7.14 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 for assistance.

### 3.7.15 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 for assistance.

## 3.7.16 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.

### 3.7.17 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

### 3.7.18 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.

### 3.7.19 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.

### 3.7.20 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.

### 3.7.21 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.

### 3.7.22 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.

### 3.7.23 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.

## 3.7.24 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 Condition**

For 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.

## 3.7.25 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.

### 3.7.26 CStackQueueFul

**Measurement ID**

9829

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

Simple

**Measurement Dimension**

Arrayed

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

30 min

**Peg Condition**

For 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 for assistance.

### 3.7.27 CATransDscrdInvCorrId

**Measurement ID**

9832

**Measurement Group**

**ComAgent** Exception

**Measurement Type**

Simple

**Measurement Dimension**

Single

**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 for assistance.

### 3.7.28 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 for assistance.

## 3.7.29 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 for assistance.

### 3.7.30 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.

### 3.7.31 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.

### 3.7.32 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**.

### 3.7.33 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 for assistance.

### 3.7.34 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 for assistance.

### 3.7.35 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 for assistance.

## 3.7.36 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 for assistance if needed.

### 3.7.37 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 for assistance.

### 3.7.38 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 if assistance is needed

## 3.7.39 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 for assistance.

### 3.7.40 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 if assistance is needed

### 3.7.41 CATransStaleSuccessRsp

**Measurement ID**

9862

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

**Measurement Type**  
Simple

**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 for assistance.

## 3.7.42 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 if assistance is needed

### 3.7.43 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

### 3.7.44 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.

### 3.7.45 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.

## 3.7.46 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.

## 3.7.47 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.

## 3.7.48 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.

## 3.7.49 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 for assistance.

## 3.7.50 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.

### 3.7.51 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 for assistance.

## 3.8 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.

### 3.8.1 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 for assistance.

### 3.8.2 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 for assistance.

### 3.8.3 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.

### 3.8.4 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.

### 3.8.5 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.

## 3.8.6 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.

## 3.8.7 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.

## 3.8.8 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.

## 3.8.9 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.

## 3.8.10 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 for assistance.

### 3.8.11 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 for assistance.

### 3.8.12 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.

### 3.8.13 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.

### 3.8.14 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.

### 3.8.15 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.

## 3.8.16 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.

## 3.8.17 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

### 3.8.17.1 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

### 3.8.18 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

### 3.8.19 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

## 3.8.20 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.

## 3.8.21 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 for assistance.

## 3.8.22 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.

### 3.8.23 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.

### 3.8.24 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](#) .

## 3.8.25 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.

## 3.8.26 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.

## 3.8.27 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.

## 3.8.28 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.

## 3.8.29 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.

### 3.8.30 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.

### 3.8.31 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.

## 3.8.32 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.

### 3.8.33 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

### 3.8.34 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

### 3.8.35 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.

## 3.9 Computer Aided Policy Making measurements

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

### 3.9.1 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.

## 3.9.2 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.

### 3.9.3 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.

### 3.9.4 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.

### 3.9.5 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.

### 3.9.6 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.

### 3.9.7 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.

### 3.9.8 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.

### 3.9.9 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.

### 3.9.10 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.

### 3.9.11 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.

## 3.10 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

### 3.10.1 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.

## 3.11 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.

### 3.11.1 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.

### 3.11.2 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.

## 3.12 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.

### 3.12.1 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.

### 3.12.2 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.

### 3.12.3 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.

### 3.12.4 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.

### 3.12.5 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.

### 3.12.6 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.

### 3.12.7 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.

## 3.12.8 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.

## 3.12.9 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.

## 3.12.10 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           |
|       |                 | DtlsMsgOversized                  |
| RCL   | MpEvTxException | RclTxTaskQueueCongested           |
|       |                 | EtrPoolCongested                  |
|       |                 | RadiusMsgPoolCongested            |
|       |                 | SharedSecretUnavailable           |
|       |                 | RadiusIdPoolCongested             |
|       |                 | MsgAttrLenUnsupported             |
|       |                 | MsgTypeUnsupported                |
|       |                 | MsgLenInvalid                     |
|       |                 | AnsOnClientConn                   |
|       | EvTxException   | ReqDuplicate                      |

**Measurement Scope**

Site

## Recovery

- No action required.

### 3.12.11 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.

### 3.12.12 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.

### 3.12.13 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.

### 3.12.14 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.

## 3.12.15 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.

## 3.12.16 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.

## 3.12.17 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.

## 3.12.18 lcDropP5

**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.

### 3.12.19 lcDropP6

**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.

### 3.12.20 lcDropP7

**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.

### 3.12.21 IcDropP8

**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.

### 3.12.22 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.

### 3.12.23 lcDropP10

**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.

### 3.12.24 lcDropP11

**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.

## 3.12.25 lcDropP12

**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.

### 3.12.26 lcDropP13

**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.

### 3.12.27 lcDropP14

**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.

## 3.12.28 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.

## 3.12.29 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.

### 3.12.30 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.

### 3.12.31 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.

## 3.12.32 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 |

| Layer | Event         | Reason                  |
|-------|---------------|-------------------------|
|       | EvRxException | RclRxTaskQueueCongested |
|       |               | RclSigEvPoolCongested   |
|       |               | SharedSecretUnavailable |
|       |               | ItrPoolCongested        |
|       |               | MsgAttrLenInvalid       |
|       |               | MsgAttrLenUnsupported   |
|       |               | AnsOrphaned             |
|       |               | AccessAuthMissing       |
|       |               | StatusAuthMissing       |
|       |               | MsgAuthInvalid          |
|       |               | ReqAuthInvalid          |
|       |               | AnsAuthInvalid          |
|       |               | MsgAttrAstUnsupported   |
|       |               | ReqDuplicate            |
|       |               | MsgTypeMissingMccs      |
|       |               | ConnUnavailable         |

**Measurement Scope**

Site

Recovery

- No action required.

### 3.12.33 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.

### 3.12.34 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.

### 3.12.35 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.

### 3.12.36 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.

### 3.12.37 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.

### 3.12.38 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.

### 3.12.39 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.

### 3.12.40 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.

## 3.12.41 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.

## 3.12.42 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.

### 3.12.43 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.

### 3.12.44 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.

## 3.12.45 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.

## 3.12.46 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.

## 3.12.47 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.

### 3.12.48 RxP7

**Measurement ID**

18348

**Measurement Group**

Connection Performance

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed by &lt;Connection&gt;

**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.

### 3.12.49 RxP8

**Measurement ID**

18349

**Measurement Group**

Connection Performance

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed by &lt;Connection&gt;

**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.

## 3.12.50 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.

## 3.12.51 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.

## 3.12.52 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.

## 3.12.53 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.

## 3.12.54 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.

### 3.12.55 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.

### 3.12.56 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.

### 3.12.57 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.

### 3.12.58 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.

## 3.12.59 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.

## 3.12.60 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.

## 3.12.61 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.

## 3.12.62 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.

## 3.12.63 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.

### 3.12.64 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.

### 3.12.65 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.

### 3.12.66 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.

### 3.12.67 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.

## 3.12.68 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.

## 3.12.69 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.

## 3.12.70 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.

## 3.12.71 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.

## 3.12.72 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.

### 3.12.73 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.

### 3.12.74 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.

### 3.12.75 TxP10

**Measurement ID**

18374

**Measurement Group**

Connection Performance

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed by &lt;Connection&gt;

**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.

### 3.12.76 TxP11

**Measurement ID**

18375

**Measurement Group**

Connection Performance

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed by &lt;Connection&gt;

**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.

## 3.12.77 TxP12

**Measurement ID**

18376

**Measurement Group**

Connection Performance

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed by &lt;Connection&gt;

**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.

## 3.12.78 TxP13

**Measurement ID**

18377

**Measurement Group**

Connection Performance

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed by &lt;Connection&gt;

**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.

## 3.12.79 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.

## 3.12.80 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.

## 3.13 Connection Service measurements

### 3.13.1 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.

### 3.13.2 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.

### 3.13.3 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.

### 3.13.4 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.

### 3.13.5 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.

### 3.13.6 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.

### 3.13.7 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.

## 3.14 Connection Transport measurements

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

### 3.14.1 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.

### 3.14.2 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.

### 3.14.3 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.

### 3.14.4 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.

### 3.14.5 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.

### 3.14.6 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.

### 3.14.7 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.

### 3.14.8 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.

### 3.14.9 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.

## 3.14.10 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.

### 3.14.11 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.

### 3.14.12 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.

### 3.14.13 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.

## 3.15 DA-MP Exception measurements

### 3.15.1 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.

## 3.15.2 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.

## 3.16 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.

### 3.16.1 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.

## 3.16.2 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.

## 3.16.3 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.

## 3.16.4 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.

### 3.16.5 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.

### 3.16.6 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.

### 3.16.7 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.

### 3.16.8 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**

1 min

**Peg Condition**

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

**Measurement Scope**

Site

Recovery

- No action required.

### 3.16.9 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.

### 3.16.10 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.

### 3.16.11 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.

### 3.16.12 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**

1 min

**Peg Condition**

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

**Measurement Scope**

Site

Recovery

- No action required.

### 3.16.13 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.

### 3.16.14 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.

## 3.16.15 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             |

| Layer | Event         | Reason                                                                                          |
|-------|---------------|-------------------------------------------------------------------------------------------------|
|       | EvTxException | MsgAttrLenUnsupported<br>MsgTypeUnsupported<br>MsgLenInvalid<br>AnsOnClientConn<br>ReqDuplicate |

**Measurement Scope**

Site

Recovery

- No action required.

## 3.16.16 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.

## 3.16.17 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.

## 3.16.18 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.

### 3.16.19 MplcP0Y

**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.

### 3.16.20 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.

### 3.16.21 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.

### 3.16.22 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.

## 3.16.23 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.

## 3.16.24 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.

### 3.16.25 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.

### 3.16.26 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.

## 3.16.27 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.

### 3.16.28 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.

### 3.16.29 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.

### 3.16.30 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.

### 3.16.31 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.

## 3.16.32 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.

## 3.16.33 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.

### 3.16.34 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.

### 3.16.35 MplcP8Y

**Measurement ID**

18314

**Measurement Group**

DA-MP Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single by &lt;DA-MP&gt;

**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.

### 3.16.36 MplcP9G

**Measurement ID**

18304

**Measurement Group**

DA-MP Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single by &lt;DA-MP&gt;

**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.

### 3.16.37 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.

### 3.16.38 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.

### 3.16.39 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.

### 3.16.40 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.

## 3.16.41 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.

## 3.16.42 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.

### 3.16.43 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.

### 3.16.44 MplcP13G

**Measurement ID**

18308

**Measurement Group**

DA-MP Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single by &lt;DA-MP&gt;

**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.

## 3.16.45 MplcP13Y

**Measurement ID**

18319

**Measurement Group**

DA-MP Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single by &lt;DA-MP&gt;

**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.

### 3.16.46 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.

### 3.16.47 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.

## 3.16.48 MplcP15G

**Measurement ID**

18310

**Measurement Group**

DA-MP Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single by &lt;DA-MP&gt;

**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.

## 3.16.49 MplcP15Y

**Measurement ID**

18321

**Measurement Group**

DA-MP Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single by &lt;DA-MP&gt;

**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.

## 3.16.50 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.

## 3.16.51 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<br>Exception | DiamMsgPoolCongested    |
|       |                     | SigEvPoolCongested      |
|       |                     | DstMpUnknown            |
|       |                     | DstMpCongested          |
|       |                     | DrlReqQueueCongested    |
|       |                     | DrlAnsQueueCongested    |
|       |                     | ComAgentCongested       |
| RCL   | MpEvRx<br>Exception | 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.

### 3.16.52 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.

### 3.16.53 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.

### 3.16.54 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.

### 3.16.55 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 .

**Measurement Scope**

Site

Recovery

- No action required.

### 3.16.56 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 .

**Measurement Scope**

Site

Recovery

- No action required.

### 3.16.57 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.

## 3.16.58 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.

## 3.16.59 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.

## 3.16.60 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.

## 3.16.61 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.

## 3.16.62 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.

## 3.16.63 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.

## 3.16.64 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.

## 3.16.65 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.

## 3.16.66 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.

## 3.16.67 MpOcDropP4G

**Measurement ID**

18322

**Measurement Group**

DA-MP Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single by &lt;DA-MP&gt;

**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.

## 3.16.68 MpOcDropP4Y

**Measurement ID**

18334

**Measurement Group**

DA-MP Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single by &lt;DA-MP&gt;

**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.

### 3.16.69 MpOcDropP5G

**Measurement ID**

18323

**Measurement Group**

DA-MP Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single by &lt;DA-MP&gt;

**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.

### 3.16.70 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.

### 3.16.71 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.

## 3.16.72 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.

## 3.16.73 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.

## 3.16.74 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.

## 3.16.75 MpOcDropP8G

**Measurement ID**

18326

**Measurement Group**

DA-MP Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single by &lt;DA-MP&gt;

**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.

## 3.16.76 MpOcDropP8Y

**Measurement ID**

18338

**Measurement Group**

DA-MP Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single by &lt;DA-MP&gt;

**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.

## 3.16.77 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.

## 3.16.78 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.

## 3.16.79 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.

## 3.16.80 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.

## 3.16.81 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.

## 3.16.82 MpOcDropP11Y

**Measurement ID**

18341

**Measurement Group**

DA-MP Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single by &lt;DA-MP&gt;

**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.

### 3.16.83 MpOcDropP12G

**Measurement ID**

18330

**Measurement Group**

DA-MP Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single by &lt;DA-MP&gt;

**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.

### 3.16.84 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.

### 3.16.85 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.

## 3.16.86 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.

## 3.16.87 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.

## 3.16.88 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.

## 3.16.89 MpOcDropP15G

**Measurement ID**

18333

**Measurement Group**

DA-MP Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single by &lt;DA-MP&gt;

**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.

### 3.16.90 MpOcDropP15Y

**Measurement ID**

18345

**Measurement Group**

DA-MP Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single by &lt;DA-MP&gt;

**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.

### 3.16.91 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.

### 3.16.92 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.

### 3.16.93 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.

### 3.16.94 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.

### 3.16.95 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.

### 3.16.96 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.

## 3.16.97 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.

## 3.16.98 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.

### 3.16.99 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.

## 3.16.100 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.

## 3.16.101 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.

### 3.16.102 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.

### 3.16.103 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.

### 3.16.104 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.

### 3.16.105 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.

## 3.16.106 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.

## 3.16.107 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.

### 3.16.108 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.

### 3.16.109 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.

## 3.16.110 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.

## 3.16.111 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.

## 3.16.112 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.

### 3.16.113 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.

### 3.16.114 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.

## 3.16.115 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.

## 3.16.116 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.

## 3.16.117 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.

## 3.16.118 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.

## 3.16.119 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.

### 3.16.120 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.

### 3.16.121 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.

### 3.16.122 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.

### 3.16.123 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.

### 3.16.124 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.

### 3.16.125 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.

## 3.16.126 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.

## 3.16.127 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.

## 3.16.128 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.

## 3.16.129 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.

### 3.16.130 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.

### 3.16.131 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.

### 3.16.132 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.

### 3.16.133 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.

### 3.16.134 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.

## 3.16.135 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.

## 3.16.136 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.

### 3.16.137 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.

### 3.16.138 MpRxDiamP11

**Measurement ID**

18120



**Measurement Group**

DA-MP Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single by &lt;DA-MP&gt;

**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.

### 3.16.139 MpRxDiamP12

**Measurement ID**

18121

**Measurement Group**

DA-MP Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single by &lt;DA-MP&gt;

**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.

### 3.16.140 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.

### 3.16.141 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.

### 3.16.142 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.

### 3.16.143 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.

## 3.16.144 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.

## 3.16.145 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.

## 3.16.146 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.

## 3.16.147 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.

## 3.16.148 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.

## 3.16.149 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.

### 3.16.150 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.

## 3.16.151 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.



## 3.16.152 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.

## 3.16.153 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.

### 3.16.154 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.

### 3.16.155 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.

## 3.16.156 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.

## 3.16.157 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.

### 3.16.158 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.

### 3.16.159 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.

## 3.16.160 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.

### 3.16.161 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.

### 3.16.162 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.

### 3.16.163 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.

### 3.16.164 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.

## 3.16.165 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.

## 3.16.166 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.

### 3.16.167 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.

### 3.16.168 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.

### 3.16.169 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.

## 3.16.170 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.

## 3.16.171 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.

## 3.16.172 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.

## 3.16.173 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.

## 3.16.174 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.

## 3.16.175 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.

## 3.16.176 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.

## 3.16.177 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.

## 3.16.178 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.

### 3.16.179 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.

### 3.16.180 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.

### 3.16.181 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.

### 3.16.182 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.

### 3.16.183 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.

### 3.16.184 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.

## 3.16.185 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.

## 3.16.186 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.

## 3.16.187 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.

## 3.16.188 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.

## 3.16.189 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.

### 3.16.190 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.

### 3.16.191 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.

### 3.16.192 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.

### 3.16.193 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.

## 3.16.194 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.

## 3.16.195 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.

## 3.16.196 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.

## 3.16.197 MpTxDiamP15

**Measurement ID**

18135

**Measurement Group**

DA-MP Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single by &lt;DA-MP&gt;

**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.

## 3.16.198 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.

## 3.16.199 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.

## 3.16.200 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.

## 3.16.201 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.

## 3.16.202 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.

## 3.16.203 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.

## 3.16.204 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.

## 3.16.205 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.

## 3.16.206 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.

## 3.16.207 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.

## 3.16.208 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.

## 3.16.209 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.

## 3.16.210 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.

### 3.16.211 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.

### 3.16.212 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.

### 3.16.213 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.

### 3.16.214 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.

## 3.16.215 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.

## 3.16.216 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.

## 3.16.217 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.

## 3.16.218 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.

### 3.16.219 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.

## 3.16.220 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.

## 3.16.221 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.

## 3.16.222 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.

## 3.16.223 RclItrPoolAvg

**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.

### 3.16.224 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.

### 3.16.225 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.

## 3.16.226 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.

## 3.16.227 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.

## 3.16.228 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.

## 3.16.229 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.

## 3.16.230 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.

## 3.16.231 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.

### 3.16.232 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.

### 3.16.233 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.

### 3.16.234 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.

### 3.16.235 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.

### 3.16.236 TmRclItrHoldTimeAvg

**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.

## 3.17 DA-MP Service measurements

### 3.17.1 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.

### 3.17.2 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.

## 3.18 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.

### 3.18.1 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

### 3.18.2 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

### 3.18.3 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

### 3.18.4 Scalar Average Measurement (DcaCustomMeal.name + Avg + "\_" + DcaDalId.shortName)

**Measurement ID**

19750-19799

**Measurement Group**DCA concatenated with the *DcaDalId.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

### 3.18.5 Scalar Measurement (DcaCustomMeal.name + Cnt + "\_" + DcaDalId.shortName)

**Measurement ID**

19550-19599

**Measurement Group**DCA concatenated with the *DcaDalId.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

### 3.18.6 Scalar Peak Measurement (`DcaCustomMeal.name` + Peak + "\_" + `DcaDalId.shortName`)

**Measurement ID**

19650-19699

**Measurement Group**

DCA concatenated with the `DcaDalId.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

## 3.19 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.

### 3.19.1 TxDcaFullDRLAnswerDiscard

**Measurement ID**

19507

**Measurement Group**

DCA Framework Exception

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed (by `DcaDalId`)

**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.

## 3.19.2 TxDcaFullDRLRequestReject

**Measurement ID**

19506

**Measurement Group**

DCA Framework Exception

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed (by DcaDalId)

**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.

## 3.19.3 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.

### 3.19.4 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.

### 3.19.5 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.

## 3.20 DCA Framework Performance measurements

The DCA Framework Performance measurement report contains measurements that provide performance information that is specific to the DCA Framework.

### 3.20.1 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.

## 3.20.2 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.

## 3.20.3 RxDcaAnswerMsgQueuePeak

**Measurement ID**

19502

**Measurement Group**

DCA Framework Performance

**Measurement Type**

Max



**Measurement Dimension**

Arrayed (by DcaDalId)

**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.

## 3.20.4 RxDcaAnswerMsgQueueAvg

**Measurement ID**

19503

**Measurement Group**

DCA Framework Performance

**Measurement Type**

Average

**Measurement Dimension**

Arrayed (by DcaDalId)

**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.

## 3.20.5 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.

## 3.20.6 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.

### 3.20.7 TxDcaFullDRLRequestReject

**Measurement ID**

19506

**Measurement Group**

DCA Framework Exception

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed (by DcaDalId)

**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.

### 3.20.8 TxDcaFullDRLAnswerDiscard

**Measurement ID**

19507

**Measurement Group**

DCA Framework Exception

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed (by DcaDalId)

**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.

## 3.20.9 RxDcaMsgRatePeak

**Measurement ID**

19508

**Measurement Group**

DCA Framework Performance

**Measurement Type**

Max

**Measurement Dimension**

Arrayed (by DcaDalId)

**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.

## 3.20.10 RxDcaMsgRateAvg

**Measurement ID**

19509

**Measurement Group**

DCA Framework Performance

**Measurement Type**

Average

**Measurement Dimension**

Arrayed (by DcaDalId)

**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.

## 3.20.11 RxDcaMsgProcessed

**Measurement ID**

19510

**Measurement Group**

DCA Framework Performance

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed (by DcaDalId)

**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.

## 3.20.12 RxDcaRequestProcessed

**Measurement ID**

19511

**Measurement Group**

DCA Framework Performance

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed (by DcaDalld)

**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.

### 3.20.13 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.

## 3.20.14 TxDcaSbrEventRatePeak

**Measurement ID**

19513

**Measurement Group**

DCA Framework Performance

**Measurement Type**

Max

**Measurement Dimension**

Arrayed (by DcaDalId)

**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.

## 3.20.15 TxDcaSbrEventRateAvg

**Measurement ID**

19514

**Measurement Group**

DCA Framework Performance

**Measurement Type**

Average

**Measurement Dimension**

Arrayed (by DcaDalId)

**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.

## 3.20.16 TxDcaSbrEventSent

**Measurement ID**

19515

**Measurement Group**

DCA Framework Performance

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed (by DcaDalId)

**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.

## 3.20.17 DcaRuntimeErrCount

**Measurement ID**

19516

**Measurement Group**

DCA Framework Performance

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed (by DcaDalId)

**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.

## 3.20.18 TxDcaSbrQueryFailCount

**Measurement ID**

19517

**Measurement Group**

DCA Framework Exception

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed (by DcaDalId)

**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.

## 3.20.19 RxDcaTransactionsTerminatedAns

**Measurement ID**

19518

**Measurement Group**

DCA Framework Performance

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed (by DcaDalId)

**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.

## 3.20.20 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.

## 3.20.21 RxDcaTransactionsTerminatedDrop

**Measurement ID**

19520

**Measurement Group**

DCA Framework Performance

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed (by DcaDalId)

**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.

## 3.20.22 TxDcaSbrQueryFailRateAvg

**Measurement ID**

19521

**Measurement Group**

DCA Framework Exception

**Measurement Type**

Average

**Measurement Dimension**

Arrayed (by DcaDalId)

**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.

## 3.20.23 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.

## 3.20.24 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.

## 3.20.25 DcaOpcodeHandlerMax

**Measurement ID**

19526

**Measurement Group**

DCA Framework Performance

**Measurement Type**

Max

**Measurement Dimension**

Arrayed (by DcaDalId)

**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.

## 3.20.26 DcaTermOpcodeCnt

**Measurement ID**

19527

**Measurement Group**

DCA Framework Performance

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed (by DcaDalId)

**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.

## 3.20.27 RxDcaLogEventProcessed

**Measurement ID**

19528

**Measurement Group**

DCA Framework Performance

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed (by DcaDalId)

**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.

## 3.20.28 RxDcaLogEventRateAvg

**Measurement ID**

19529

**Measurement Group**

DCA Framework Performance

**Measurement Type**

Average

**Measurement Dimension**

Arrayed (by DcaDalId)

**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.

## 3.20.29 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.

## 3.20.30 RxDcaAsyncMsgQueueAvg

**Measurement ID**

19531

**Measurement Group**

DCA Framework Performance

**Measurement Type**

Average

**Measurement Dimension**

Arrayed (by DcaDalId)

**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.

### 3.20.31 RxDcaAsyncMsgQueuePeak

**Measurement ID**

19532

**Measurement Group**

DCA Framework Performance

**Measurement Type**

Max

**Measurement Dimension**

Arrayed (by DcaDalId)

**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.



### 3.20.32 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.

### 3.20.33 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.

### 3.20.34 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.

## 3.21 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.

### 3.21.1 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.

## 3.21.2 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.

### 3.21.3 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.

## 3.21.4 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.

### 3.21.5 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 .

### 3.21.6 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 .

## 3.21.7 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 .

## 3.21.8 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 .

### 3.21.9 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 .

### 3.21.10 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 .

## 3.22 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.

### 3.22.1 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.

### 3.22.2 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.

### 3.22.3 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.

### 3.22.4 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.

## 3.22.5 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.

## 3.22.6 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.

## 3.22.7 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.

## 3.22.8 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.

## 3.22.9 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.

## 3.22.10 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.

## 3.22.11 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.

## 3.22.12 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.

## 3.22.13 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.

## 3.22.14 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.

## 3.22.15 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 .

## 3.22.16 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 .

### 3.22.17 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 .

## 3.22.18 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 .

## 3.22.19 RxFabrRequestProcessed

**Measurement ID**

10660

**Measurement Group**

DSR 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.

## 3.22.20 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.

## 3.22.21 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.

## 3.22.22 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 .

### 3.22.23 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 .



## 3.22.24 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 .

## 3.22.25 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 .

## 3.22.26 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 .

### 3.22.27 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 .

## 3.22.28 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.

## 3.22.29 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.

## 3.23 Diameter Egress Transaction measurements

The Diameter Egress Transaction measurement report contains measurements providing information about Diameter peer-to-peer transactions forwarded to upstream peers.

### 3.23.1 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.

### 3.23.2 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 for assistance if needed.

### 3.23.3 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.

## 3.23.4 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.

## 3.23.5 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.

## 3.23.6 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.

### 3.23.7 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 for assistance if needed.

### 3.23.8 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 for assistance if needed.

## 3.23.9 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 for assistance if needed.

## 3.23.10 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 for assistance if needed.

### 3.23.11 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.

### 3.23.12 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.

### 3.23.13 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.

## 3.24 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.

### 3.24.1 EvApplIdListInconsistency

**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 .

## 3.24.2 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.

### 3.24.3 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.

### 3.24.4 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 for assistance if needed.

## 3.24.5 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.

## 3.24.6 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.

## 3.24.7 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 .

## 3.24.8 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 .

### 3.24.9 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 .

### 3.24.10 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 .

### 3.24.11 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 .

## 3.24.12 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 .

## 3.24.13 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 for assistance if needed.

## 3.24.14 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 for assistance if needed.

### 3.24.15 TxDtlsOversizedDiscard

**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.

### 3.24.16 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 .

## 3.24.17 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 for assistance if needed.

## 3.25 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.

### 3.25.1 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

## 3.25.2 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 for assistance if needed.

## 3.25.3 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 .

## 3.25.4 RxMessageLooping

**Measurement ID**

10032

**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 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 .

## 3.25.5 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 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 for assistance if needed.

## 3.25.6 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 .

## 3.25.7 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.

## 3.25.8 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 is pegged:

- [RxRejectedConnCongestion](#)
- [RxDecodeFailure](#)
- [RxMessageLooping](#)
- [RxAllIDrop](#)
- [RxNoRulesFailure](#)
- [RxNoRoutesFound](#)
- [RxTransactionTimeout](#)
- [RxPrtRuleRejection](#)
- [RxRejectedOther](#)

**Measurement Scope**

Server Group

Recovery

- No action required.

## 3.25.9 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](#)
- [RxAllIDrop](#)
- [RxNoRulesFailure](#)
- [RxNoRoutesFound](#)
- [RxTransactionTimeout](#)
- [RxArtRuleRejection](#)
- [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](#)
- [RxPrtRuleRejection](#)

The connection measurement is associated with the connection from which the Request message was received.

**Measurement Scope**

Server Group

Recovery

- No action required.

## 3.25.10 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 for assistance if needed.

## 3.25.11 RxTransactionTimeout

**Measurement ID**

10036

**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 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 for assistance if needed.

## 3.25.12 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 .

### 3.25.13 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 for assistance if needed.

## 3.25.14 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 for assistance if needed.

## 3.26 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.

### 3.26.1 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.

## 3.26.2 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.

## 3.26.3 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.

## 3.26.4 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.

## 3.26.5 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.

## 3.26.6 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.

## 3.26.7 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.

## 3.26.8 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.

## 3.27 Diameter Performance measurements

The Diameter Performance measurement report contains measurements that provide performance information that is specific to the Diameter protocol.

### 3.27.1 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.

### 3.27.2 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.

### 3.27.3 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.

### 3.27.4 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.

### 3.27.5 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.

### 3.27.6 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.

## 3.27.7 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

## 3.27.8 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.

## 3.27.9 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 for assistance if needed.

### 3.27.10 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.

### 3.27.11 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 for assistance if needed.

## 3.27.12 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.

## 3.28 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.

### 3.28.1 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 .

**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.

## 3.28.2 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.

## 3.28.3 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.

## 3.28.4 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.

## 3.28.5 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 for assistance if needed.

## 3.28.6 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 is pegged:

- [TxRerouteConnFailure](#)

- [TxRerouteAnswerTimeout](#)
- [TxRerouteAnswerResponse](#)

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 [My Oracle Support](#) for assistance if needed.

## 3.28.7 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 for assistance if needed.

## 3.28.8 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.

## 3.29 DP Measurements

The Data Processor measurement report contains measurements providing performance information that is specific to data processing in the MP.

### 3.29.1 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.



### 3.29.2 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.

### 3.29.3 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.

### 3.29.4 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.

### 3.29.5 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.

### 3.29.6 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.

### 3.29.7 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.

### 3.29.8 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.

### 3.29.9 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.

### 3.29.10 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.

### 3.29.11 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.

### 3.29.12 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.

### 3.29.13 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.

## 3.29.14 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.

## 3.29.15 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.

## 3.29.16 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.

## 3.29.17 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.

## 3.29.18 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.

## 3.29.19 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.

### 3.29.20 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.

### 3.29.21 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.

### 3.29.22 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.

### 3.29.23 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.

### 3.29.24 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.

### 3.29.25 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.

### 3.29.26 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.

## 3.29.27 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.

## 3.29.28 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.

### 3.29.29 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.

### 3.29.30 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.

### 3.29.31 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.

### 3.29.32 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.

### 3.29.33 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.

### 3.29.34 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.

### 3.29.35 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.

### 3.29.36 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.

### 3.29.37 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.

### 3.29.38 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.

## 3.30 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.

### 3.30.1 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.

### 3.30.2 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.

### 3.30.3 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.

### 3.30.4 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.

### 3.30.5 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.

### 3.30.6 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.

### 3.30.7 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.

### 3.30.8 DeirDiscImeiAbsent

**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.

### 3.30.9 DeirDiscInternalErr

**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.

### 3.30.10 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.

### 3.30.11 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.

### 3.30.12 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.

### 3.30.13 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.

### 3.30.14 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.

### 3.30.15 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.

### 3.30.16 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.

### 3.30.17 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.



### 3.30.18 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.

### 3.30.19 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.

### 3.30.20 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.

### 3.30.21 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.

### 3.30.22 DeirUnSupportedAppld

**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.

### 3.30.23 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.

## 3.31 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.

### 3.31.1 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.

## 3.31.2 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.

## 3.31.3 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.

### 3.31.4 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.

### 3.31.5 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.

### 3.31.6 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.

### 3.31.7 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.

### 3.31.8 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.

## 3.31.9 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.

## 3.31.10 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.

### 3.31.11 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.

## 3.32 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.

### 3.32.1 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.

### 3.32.2 DeirBlackImeiImsiMismatch

**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.

### 3.32.3 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.

### 3.32.4 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.

### 3.32.5 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.

### 3.32.6 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.

### 3.32.7 DeirlmeiOverridden

**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.

### 3.32.8 DeirlmsiRangeChk

**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.

### 3.32.9 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.

### 3.32.10 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.

### 3.32.11 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.

## 3.32.12 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.

## 3.32.13 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.

## 3.32.14 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.

## 3.32.15 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.

### 3.32.16 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.

### 3.32.17 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.

### 3.32.18 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.

### 3.32.19 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.

### 3.32.20 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.

### 3.32.21 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.

### 3.32.22 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.

### 3.32.23 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.

### 3.32.24 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.

### 3.32.25 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.

### 3.32.26 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.

### 3.32.27 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.

## 3.32.28 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.

## 3.32.29 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.

## 3.33 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.

### 3.33.1 VstpEirImeiMissing

**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.

### 3.33.2 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.

### 3.33.3 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.

### 3.33.4 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.

### 3.33.5 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.

### 3.33.6 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.

### 3.33.7 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.

### 3.33.8 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.

### 3.33.9 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.

### 3.33.10 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.

### 3.33.11 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.

### 3.33.12 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.

## 3.34 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.

### 3.34.1 VstpEirBlackAllwImei

**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.

### 3.34.2 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.

### 3.34.3 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.

### 3.34.4 VstpEirCAQueueProcesTime

**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.

### 3.34.5 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.

### 3.34.6 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.

### 3.34.7 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.

### 3.34.8 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.

### 3.34.9 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.

### 3.34.10 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.

### 3.34.11 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.

### 3.34.12 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.

### 3.34.13 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.

### 3.34.14 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.

### 3.34.15 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.

## 3.35 Egress Throttle Group Performance measurements

The Diameter Egress Throttle Group Performance measurement report contains measurements providing information related to a specific **ETG**.

### 3.35.1 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

## 3.35.2 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

## 3.35.3 TxEtgMsgRateAvg

**Measurement ID**

14002

**Measurement Group**

Egress Throttle Group Performance

**Measurement Type**

Avg

**Measurement Dimension**

Arrayed (by ETG ID)

**Description**Average **ETG** Message Rate calculation made during the collection interval**Collection Interval**

5 min

**Peg Condition**Each time an **ETG** Message Rate calculation  $A_t$  is calculated.

**Measurement Scope**

Site

Recovery

- No action required

### 3.35.4 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.

### 3.35.5 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.

## 3.35.6 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](#).

### 3.35.7 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](#).

### 3.35.8 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](#).

### 3.35.9 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](#).

## 3.35.10 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](#).

## 3.35.11 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](#).

## 3.35.12 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](#).

### 3.35.13 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](#).

## 3.35.14 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](#).

### 3.35.15 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](#).

### 3.35.16 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](#).

### 3.35.17 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](#).

### 3.35.18 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 .

## 3.35.19 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 .

## 3.35.20 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 .

## 3.35.21 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 .

## 3.35.22 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 .

### 3.35.23 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 .

### 3.35.24 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 .

### 3.35.25 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 .

### 3.35.26 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 .

### 3.35.27 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 .

## 3.35.28 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 .

## 3.35.29 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 .

### 3.35.30 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 .

### 3.35.31 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 .

### 3.35.32 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 .

### 3.35.33 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 .

### 3.35.34 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 .

### 3.35.35 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 .

### 3.35.36 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 .

### 3.35.37 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 .

### 3.35.38 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 .

### 3.35.39 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

### 3.35.40 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

### 3.35.41 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 .

## 3.35.42 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 .

### 3.35.43 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 .

### 3.35.44 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 .

### 3.35.45 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 .

### 3.35.46 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 .

### 3.35.47 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 .

### 3.35.48 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 .

### 3.35.49 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 .

### 3.35.50 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 .

### 3.35.51 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 .

### 3.35.52 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 .

### 3.35.53 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 .

## 3.35.54 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 .

### 3.35.55 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 .

### 3.35.56 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 .

### 3.35.57 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 .

### 3.35.58 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 .

### 3.35.59 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 .

### 3.35.60 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 .

### 3.35.61 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 .

### 3.35.62 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 .

### 3.35.63 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 .

### 3.35.64 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 .

### 3.35.65 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 .

## 3.35.66 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 .

### 3.35.67 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 .

### 3.35.68 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 .

### 3.35.69 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 .

### 3.35.70 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 .

### 3.35.71 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 .

## 3.35.72 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 .

## 3.35.73 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 .

## 3.35.74 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

### 3.35.75 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.

### 3.35.76 EtgHandledP0Y

**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.

### 3.35.77 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.

## 3.35.78 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.

### 3.35.79 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.

### 3.35.80 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.

## 3.35.81 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.

### 3.35.82 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.

### 3.35.83 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.

## 3.35.84 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.

### 3.35.85 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.

### 3.35.86 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.

## 3.35.87 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.

### 3.35.88 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.

### 3.35.89 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.

## 3.35.90 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.

### 3.35.91 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.

### 3.35.92 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.

### 3.35.93 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.

### 3.35.94 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.

### 3.35.95 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.

## 3.35.96 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.

## 3.35.97 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.

## 3.35.98 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.

## 3.35.99 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.

### 3.35.100 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.

### 3.35.101 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.

### 3.35.102 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.

### 3.35.103 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.

### 3.35.104 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.

### 3.35.105 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.

## 3.35.106 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.

## 3.35.107 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.

### 3.35.108 EtgDivertedOutPOY

**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.

### 3.35.109 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.

### 3.35.110 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.

### 3.35.111 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.

### 3.35.112 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.

### 3.35.113 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.

### 3.35.114 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.

### 3.35.115 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.

### 3.35.116 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.

### 3.35.117 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.

### 3.35.118 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.

### 3.35.119 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.

### 3.35.120 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.

### 3.35.121 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.

### 3.35.122 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.

### 3.35.123 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.

### 3.35.124 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.

### 3.35.125 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.

### 3.35.126 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.

### 3.35.127 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.

### 3.35.128 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.

## 3.35.129 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.

### 3.35.130 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.

### 3.35.131 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.

### 3.35.132 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.

### 3.35.133 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.

### 3.35.134 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.

### 3.35.135 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.

### 3.35.136 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.

### 3.35.137 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.

### 3.35.138 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.

### 3.35.139 EtgDivertedInP0G

**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

### 3.35.140 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

## 3.35.141 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

### 3.35.142 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

### 3.35.143 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

## 3.35.144 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

## 3.35.145 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

## 3.35.146 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

## 3.35.147 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

## 3.35.148 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

## 3.35.149 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

### 3.35.150 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

### 3.35.151 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

### 3.35.152 EtgDivertedInP6Y

**Measurement ID**

14828

**Measurement Group**

Egress Throttle Group Performance

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed

**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

### 3.35.153 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

### 3.35.154 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

### 3.35.155 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

### 3.35.156 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

### 3.35.157 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

### 3.35.158 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

## 3.35.159 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

### 3.35.160 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

### 3.35.161 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

## 3.35.162 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

### 3.35.163 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

### 3.35.164 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

## 3.35.165 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

## 3.35.166 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

## 3.35.167 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

## 3.35.168 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

## 3.35.169 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

## 3.35.170 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

## 3.36 Egress Throttle List Performance measurements

The Diameter Egress Throttle List Performance measurement report contains measurements providing information related to a specific **ETL**.

### 3.36.1 TxEtlMsgRatePeak

**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

## 3.36.2 TxEtIMsgRateAvg

**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

## 3.36.3 EtISelected

**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

### 3.36.4 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

### 3.36.5 EvEtIRateCongestionOnset

**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 .

### 3.36.6 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 .

### 3.36.7 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 .

## 3.36.8 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 .

### 3.36.9 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 .

## 3.36.10 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 .

### 3.36.11 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 .

### 3.36.12 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 .

### 3.36.13 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 .

### 3.36.14 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 .

### 3.36.15 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 .

### 3.36.16 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 .

### 3.36.17 EvEtIRateDiscardPri5Y

**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 .

## 3.36.18 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 .

## 3.36.19 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 .

### 3.36.20 EvEtIRateDiscardPri7G

**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 .

### 3.36.21 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 .

## 3.36.22 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 .

### 3.36.23 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 .

## 3.36.24 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 .

## 3.36.25 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 .

## 3.36.26 EvEtIRateDiscardPri10G

**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 .

### 3.36.27 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 .

## 3.36.28 EvEtIRateDiscardPri11G

**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 .

### 3.36.29 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 .

### 3.36.30 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 .

### 3.36.31 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 .

### 3.36.32 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 .

### 3.36.33 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 .

### 3.36.34 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 .

### 3.36.35 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 .

### 3.36.36 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 .

### 3.36.37 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 .

### 3.36.38 EvEtIPendingTransPeak

**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

### 3.36.39 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

### 3.36.40 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 .

### 3.36.41 EvEtIPendingTransDiscardPri0G

**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 .

### 3.36.42 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 .

### 3.36.43 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 .

### 3.36.44 EvEtIPendingTransDiscardPri1Y

**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 .

## 3.36.45 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 .

## 3.36.46 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 .

### 3.36.47 EvEtIPendingTransDiscardPri3G

**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 .

### 3.36.48 EvEtIPendingTransDiscardPri3Y

**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 .

## 3.36.49 EvEtIPendingTransDiscardPri4G

**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 .

### 3.36.50 EvEtIPendingTransDiscardPri4Y

**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 .

### 3.36.51 EvEtIPendingTransDiscardPri5G

**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 .

### 3.36.52 EvEtIPendingTransDiscardPri5Y

**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 .

### 3.36.53 EvEtIPendingTransDiscardPri6G

**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 .

### 3.36.54 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 .

### 3.36.55 EvEtIPendingTransDiscardPri7G

**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 .



### 3.36.56 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 .

### 3.36.57 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 .

### 3.36.58 EvEtIPendingTransDiscardPri8Y

**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 .

## 3.36.59 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 .

### 3.36.60 EvEtIPendingTransDiscardPri9Y

**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 .

## 3.36.61 EvEtIPendingTransDiscardPri10G

**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 .

### 3.36.62 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 .

### 3.36.63 EvEtIPendingTransDiscardPri11G

**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 .

### 3.36.64 EvEtIPendingTransDiscardPri11Y

**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 .

### 3.36.65 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 .

### 3.36.66 EvEtIPendingTransDiscardPri12Y

**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 .

### 3.36.67 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 .

### 3.36.68 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 .

### 3.36.69 EvEtIPendingTransDiscardPri14G

**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 .

## 3.36.70 EvEtIPendingTransDiscardPri14Y

**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 .

## 3.36.71 EvEtIPendingTransDiscardPri15G

**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 .

## 3.36.72 EvEtIPendingTransDiscardPri15Y

**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 .

### 3.36.73 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

### 3.36.74 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

### 3.36.75 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

## 3.36.76 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

## 3.36.77 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

## 3.36.78 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

### 3.36.79 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

### 3.36.80 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

## 3.36.81 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

### 3.36.82 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

### 3.36.83 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

### 3.36.84 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

## 3.36.85 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

### 3.36.86 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

### 3.36.87 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

### 3.36.88 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

## 3.36.89 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

### 3.36.90 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

### 3.36.91 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

### 3.36.92 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

### 3.36.93 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

### 3.36.94 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

### 3.36.95 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

### 3.36.96 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

## 3.36.97 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

## 3.36.98 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

## 3.36.99 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

## 3.36.100 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

## 3.36.101 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

### 3.36.102 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

### 3.36.103 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

### 3.36.104 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

## 3.36.105 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

### 3.36.106 EtIDivertedOutPOG

**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

### 3.36.107 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

### 3.36.108 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

## 3.36.109 EtIDivertedOutP1Y

**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

### 3.36.110 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

### 3.36.111 EtIDivertedOutP2Y

**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

### 3.36.112 EtIDivertedOutP3G

**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

## 3.36.113 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

### 3.36.114 EtIDivertedOutP4G

**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

### 3.36.115 EtlDivertedOutP4Y

**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

### 3.36.116 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

## 3.36.117 EtIDivertedOutP5Y

**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

### 3.36.118 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

### 3.36.119 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

### 3.36.120 EtlDivertedOutP7G

**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

## 3.36.121 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

### 3.36.122 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

### 3.36.123 EtlDivertedOutP8Y

**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

### 3.36.124 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

## 3.36.125 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

### 3.36.126 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

### 3.36.127 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

### 3.36.128 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

## 3.36.129 EtIDivertedOutP11Y

**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

### 3.36.130 EtIDivertedOutP12G

**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

### 3.36.131 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

### 3.36.132 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

### 3.36.133 EtIDivertedOutP13Y

**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

### 3.36.134 EtIDivertedOutP14G

**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

### 3.36.135 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

### 3.36.136 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

## 3.36.137 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

### 3.36.138 EtIDivertedInPOG

**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

### 3.36.139 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

### 3.36.140 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

### 3.36.141 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

### 3.36.142 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

### 3.36.143 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

## 3.36.144 EtlDivertedInP3G

**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

### 3.36.145 EtlDivertedInP3Y

**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

### 3.36.146 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

## 3.36.147 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

## 3.36.148 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

## 3.36.149 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

## 3.36.150 EtlDivertedInP6G

**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

### 3.36.151 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

### 3.36.152 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

### 3.36.153 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

## 3.36.154 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

## 3.36.155 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

## 3.36.156 EtlDivertedInP9G

**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

## 3.36.157 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

## 3.36.158 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

## 3.36.159 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

## 3.36.160 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

## 3.36.161 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

## 3.36.162 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

### 3.36.163 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

### 3.36.164 EtlDivertedInP13G

**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

## 3.36.165 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

## 3.36.166 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

## 3.36.167 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

## 3.36.168 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

### 3.36.169 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

## 3.37 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.

### 3.37.1 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.

## 3.37.2 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 .

### 3.37.3 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 for assistance.

### 3.37.4 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 [My Oracle Support](#).

## 3.37.5 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 to isolate reasons for failures:
  - [RxFabrUnkApplId](#)
  - [RxFabrDecodeFailureResol](#)
  - [RxFabrResolFailAll](#)
  - [RxFabrResolFailCmdcode](#)

- [RxFabrResolFailNoAddrAvps](#)
- [TxFabrDbConFail](#)
- [TxFabrAbandonRequest](#)
- [RxFabrInvalidImsiMcc](#)
- [RxFabrBlacklistedImsi](#)
- [RxFabrBlacklistedMsisdn](#)

2. It is recommended to contact [My Oracle Support](#) for assistance.

### 3.37.6 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 for assistance.

### 3.37.7 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 for assistance.

## 3.37.8 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

## 3.37.9 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 for assistance.

## 3.37.10 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 for assistance.

### 3.37.11 RxFabrResolFailImsiMatch

**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 for assistance.

### 3.37.12 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 for assistance.

## 3.37.13 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 for assistance.

## 3.37.14 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 for assistance.

## 3.37.15 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.

### 3.37.16 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.

### 3.37.17 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 to isolate reasons for failures:

- [RxFabrUnkApplId](#)
- [RxFabrDecodeFailureResol](#)
- [RxFabrResolFailAll](#)
- [RxFabrResolFailCmdcode](#)
- [RxFabrResolFailNoAddrAvps](#)
- [TxFabrDbConFail](#)
- [TxFabrAbandonRequest](#)
- [RxFabrInvalidImsiMcc](#)
- [RxFabrBlacklistedImsi](#)
- [RxFabrBlacklistedMsisdn](#)

2. If the problem persists, it is recommended to contact [My Oracle Support](#).

## 3.37.18 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 for assistance.

### 3.37.19 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 for assistance.

### 3.37.20 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, example: queue full.

**Measurement Scope**

Server Group

Recovery

- It is recommended to contact [My Oracle Support](#) for assistance.

## 3.38 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.

### 3.38.1 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 Condition**

When FABR successfully sends a Bundled query event to **ComAgent** for processing

**Measurement Scope**

Server Group

Recovery

- No action required.

### 3.38.2 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.

### 3.38.3 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.

## 3.38.4 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.

## 3.38.5 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 for assistance.

## 3.38.6 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 for assistance.

## 3.38.7 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.

## 3.38.8 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.

## 3.38.9 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.

## 3.38.10 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.



## 3.38.11 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.

## 3.38.12 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.

### 3.38.13 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.

### 3.38.14 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.

### 3.38.15 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.

## 3.38.16 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.

## 3.38.17 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.

## 3.38.18 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.

## 3.38.19 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.

## 3.38.20 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.

## 3.38.21 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.

## 3.38.22 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.

### 3.38.23 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.

### 3.38.24 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 for assistance.

## 3.38.25 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.

## 3.38.26 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.

## 3.39 IDIH measurements

The **IDIH** measurement report contains measurements that provide performance information that is specific to the IDIH feature.

### 3.39.1 IdihKafkaPeakQueueUtil

**Measurement ID**

22504

**Measurement Group**

COH

**Measurement Type**

Single

**Measurement Dimension**

Single

**Description**

Maximum percentage of IdihKafka producer queue utilization.  
DSR to **DIH**.

**Collection Interval**

30 min

**Peg Condition**

Percentage of producer queue utilized for sending TTR events.

**Measurement Scope**

Site

### 3.39.2 IdihKafkaAvgQueueUtil

**Measurement ID**

22505

**Measurement Group**

COH

**Measurement Type**

Single

**Measurement Dimension**

Single

**Description**

Average percentage of IdihKafka producer queue utilization.

**Collection Interval**

30 min

**Peg Condition**This is to track the measure of **Average** usage of the **Producer** queue.**Measurement Scope**

Site

### 3.39.3 IdihKafkaProducerQueueFull

**Measurement ID**

22506

**Measurement Group**

COH

**Measurement Type**

Single

**Measurement Dimension**

Single

**Description**StackEvent discarded due to **IdihKafkaProducer** Queue Utilization full condition.**Collection Interval**

30 min

**Peg Condition**

Each time trace limiting is activated and stopped when trace limiting is de-activated.

**Measurement Scope**

Site

### 3.39.4 IdihKafkaPeakProducerRttAvg

**Measurement ID**

22507

**Measurement Group**

COH

**Measurement Type**

Single

**Measurement Dimension**

Single

**Description**

Max round trip time for events to publish on kafka brokers.

**Collection Interval**

30 min

**Peg Condition**

Each time trace throttling is activated and stopped when trace throttling is de-activated.

**Measurement Scope**

Site

Recovery

- No action required

### 3.39.5 IdihKafkaAvgProducerRttAvg

**Measurement ID**

22508

**Measurement Group**

COH

**Measurement Type**

Single

**Measurement Dimension**

Single

**Description**

Average round trip time for events to publish on kafka brokers.

**Collection Interval**

30 min

**Peg Condition**

Each time trace throttling is activated and stopped when trace throttling is de-activated.

**Measurement Scope**

Site

### 3.39.6 Topic

**Measurement ID**

23502

**Measurement Group**

COH

**Measurement Type**

Single

**Measurement Dimension**

Single

**Description**

IdihKafkaPeakProducerRttAvg

**Collection Interval**

30 min

**Peg Condition**

Each time trace throttling is activated and stopped when trace throttling is de-activated.

**Measurement Scope**

Site

### 3.39.7 IdihKafkaProducerQueue

**Measurement ID**

23501

**Measurement Group**

COH

**Measurement Type**

Single

**Measurement Dimension**

Single

**Description****Collection Interval**

30 min

**Peg Condition**

Each time trace throttling is activated and stopped when trace throttling is de-activated.

**Measurement Scope**

Site

### 3.39.8 EvIdihThrottlingTtrsDiscarded

**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 Condition**

Each time a **TTR** is discarded due to trace throttling.

**Measurement Scope**

Site

Recovery

- No action required

### 3.39.9 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 .

### 3.39.10 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

## 3.40 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.

### 3.40.1 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 .

## 3.40.2 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.

## 3.40.3 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.

## 3.40.4 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.

## 3.40.5 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.

## 3.40.6 TsaUnexpctdTcp

**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.

## 3.40.7 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.

## 3.40.8 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

## 3.41 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.

### 3.41.1 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

### 3.41.2 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

### 3.41.3 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

### 3.41.4 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

## 3.41.5 RxIpfeBytes

**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

## 3.41.6 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

## 3.41.7 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

## 3.41.8 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

## 3.41.9 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

## 3.41.10 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

## 3.41.11 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

## 3.41.12 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

## 3.41.13 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

## 3.41.14 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

## 3.41.15 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

## 3.41.16 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

## 3.41.17 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

## 3.42 License measurements

The License measurement report contains measurements providing information about network MPS and place association sessions for Policy DRA and Online Charging DRA.

### 3.42.1 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.

## 3.42.2 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.

## 3.42.3 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

## 3.42.4 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

## 3.42.5 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.

### 3.42.6 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.

### 3.42.7 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.

## 3.42.8 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.

## 3.42.9 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.

## 3.43 Link Exception measurements

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

### 3.43.1 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 for assistance if needed.

## 3.43.2 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 for assistance if needed.

### 3.43.3 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 for assistance if needed.

### 3.43.4 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 for assistance if needed.

## 3.44 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.

### 3.44.1 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

## 3.44.2 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.

### 3.44.3 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.

### 3.44.4 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.

## 3.45 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.

### 3.45.1 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.



## 3.45.2 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.

## 3.45.3 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.

## 3.45.4 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.

## 3.46 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.

### 3.46.1 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.

## 3.47 Link Usage measurements

The Link Usage measurement report contains measurements that provide usage information that is specific to links configured for the MP server.

### 3.47.1 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.

## 3.47.2 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 for assistance if needed.

### 3.47.3 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 for assistance if needed.

## 3.47.4 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 for assistance if needed.

## 3.48 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

### 3.48.1 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.

### 3.48.2 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 for assistance.

### 3.48.3 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 MCCA configured with the trigger points and ensure proper provisioning.
2. If the problem persists, it is recommended to contact .

### 3.48.4 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 for assistance.

### 3.48.5 DASCopyFailurePeerApplIdUnsup

**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 for assistance.

## 3.48.6 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 for assistance.

### 3.48.7 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 for assistance.

### 3.48.8 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 for assistance.

## 3.48.9 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 for assistance.

## 3.48.10 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.

## 3.48.11 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 for assistance.

## 3.48.12 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.

### 3.48.13 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.

### 3.48.14 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.

## 3.49 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.

### 3.49.1 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.



## 3.49.2 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.

## 3.49.3 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.

## 3.49.4 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.

## 3.49.5 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.

## 3.49.6 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.

## 3.49.7 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.

## 3.49.8 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.

## 3.49.9 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.

## 3.49.10 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.

### 3.49.11 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.

### 3.49.12 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.

### 3.49.13 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.

### 3.49.14 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.

## 3.49.15 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.

## 3.49.16 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.

## 3.50 MP Performance measurements

The Message Processor (MP) performance measurement report contains measurements that provide performance information for an MP server.

### 3.50.1 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 .

## 3.50.2 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 .

### 3.50.3 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 for assistance if needed.

### 3.50.4 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 for assistance if needed.

## 3.50.5 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.

## 3.50.6 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 for assistance if needed.

## 3.50.7 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 for assistance if needed.

## 3.50.8 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 for assistance if needed.

## 3.50.9 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 for assistance if needed.

## 3.50.10 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 .

### 3.50.11 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 .

## 3.51 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           |

## 3.52 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           |
| 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           |

Table 3-5 (Cont.) OAM System Measurements

| Measurement Tag                | Description                                                                                                                         | Collection Interval |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| 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           |

## 3.53 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.

### 3.53.1 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 .

### 3.53.2 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 .

### 3.53.3 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 [RxGyRoAnsDiscardedDrlQueueFullPerCmd](#).

**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.

## 3.53.4 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.

## 3.53.5 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.

## 3.53.6 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.

## 3.53.7 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.

### 3.53.8 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.

## 3.54 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.

### 3.54.1 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.

## 3.54.2 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.

### 3.54.3 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.

### 3.54.4 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 for assistance if needed.

## 3.54.5 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.

## 3.54.6 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.

## 3.54.7 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.

## 3.54.8 TxGyRoCcrInitAnsGenPerErrCode

**Measurement ID**

11403

**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 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 INITIATE\_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.

## 3.54.9 TxGyRoCcrUpdateAnsGenPerErrCode

**Measurement ID**

11404

**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 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.

## 3.54.10 TxGyRoCcrTermAnsGenPerErrCode

**Measurement ID**

11405

**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 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.

### 3.54.11 TxGyRoCcrEventAnsGenPerErrCode

**Measurement ID**

11406

**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 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.

## 3.54.12 TxGyRoRarAnsGenPerErrCode

**Measurement ID**

11407

**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 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.

### 3.54.13 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.

## 3.54.14 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.

### 3.54.15 RxPcaAnsRelayedUnsupportedAppId

**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 for assistance if needed.

### 3.54.16 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.

## 3.54.17 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.

## 3.54.18 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.

### 3.54.19 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 for assistance if needed.

### 3.54.20 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".

## 3.54.21 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 for assistance if needed.

## 3.54.22 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 for assistance if needed.

### 3.54.23 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.

### 3.54.24 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.

## 3.54.25 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 for assistance if needed.

## 3.55 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.

### 3.55.1 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

## 3.56 PCA NGN-PS Exception measurements

### 3.56.1 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.

### 3.56.2 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.

## 3.56.3 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.

## 3.57 PCA NGN-PS Performance measurements

## 3.57.1 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.

## 3.58 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.

### 3.58.1 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.

## 3.58.2 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.

## 3.58.3 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.

## 3.58.4 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.

## 3.58.5 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.

## 3.58.6 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.

### 3.58.7 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.

### 3.58.8 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.

### 3.58.9 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.

### 3.58.10 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.

## 3.58.11 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.

## 3.58.12 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.

### 3.58.13 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.

### 3.58.14 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.

## 3.58.15 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 for support as needed.

## 3.58.16 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.

## 3.58.17 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.

## 3.58.18 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.

## 3.58.19 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.

## 3.58.20 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.

## 3.58.21 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.

## 3.58.22 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 .

## 3.58.23 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 .

## 3.58.24 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 .

## 3.58.25 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.

## 3.58.26 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 .

## 3.58.27 TmlmsiBindingDuration

**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.

## 3.58.28 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.

## 3.58.29 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.

### 3.58.30 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.

### 3.58.31 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.

## 3.58.32 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.

### 3.58.33 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.

### 3.58.34 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.

### 3.58.35 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.

### 3.58.36 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.

## 3.58.37 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.

## 3.59 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.

### 3.59.1 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 in the 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.

## 3.59.2 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.

## 3.59.3 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 .

## 3.59.4 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](#).

## 3.59.5 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 .

### 3.59.6 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 .

### 3.59.7 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 .

## 3.59.8 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 .

## 3.59.9 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

## 3.59.10 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.

## 3.59.11 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 for assistance.

## 3.59.12 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 for assistance.

### 3.59.13 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.

### 3.59.14 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.

### 3.59.15 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.

### 3.59.16 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 .

### 3.59.17 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 for further assistance.

### 3.59.18 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.

### 3.59.19 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.

## 3.59.20 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.

## 3.59.21 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.

## 3.59.22 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.

## 3.60 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.

## 3.60.1 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 for assistance.

## 3.60.2 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 for assistance.

### 3.60.3 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 for assistance.

### 3.60.4 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 for assistance.

## 3.60.5 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 for assistance.

## 3.60.6 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 for assistance.

## 3.61 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.

### 3.61.1 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.



## 3.61.2 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.

## 3.62 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.

### 3.62.1 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.

## 3.62.2 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.

## 3.62.3 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.

## 3.62.4 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.

## 3.62.5 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.

## 3.63 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.

### 3.63.1 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.

## 3.63.2 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 .

### 3.63.3 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.

### 3.63.4 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.

### 3.63.5 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 MCCA 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 MCCA is assigned to the peer routing rule.

**Measurement Scope**

Recovery

- No action required.

## 3.64 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.

### 3.64.1 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.

### 3.64.2 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.

### 3.64.3 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.

### 3.64.4 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.

## 3.64.5 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.

## 3.64.6 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.

## 3.64.7 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.

## 3.64.8 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.

## 3.64.9 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.

## 3.64.10 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.

## 3.64.11 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.

## 3.64.12 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.

## 3.64.13 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.

## 3.64.14 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.

## 3.64.15 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.

## 3.64.16 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.

## 3.64.17 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.

## 3.64.18 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.

## 3.64.19 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.

## 3.64.20 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.

## 3.64.21 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.

## 3.64.22 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.

### 3.64.23 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.

### 3.64.24 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.

### 3.64.25 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.

### 3.64.26 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.

### 3.64.27 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.

### 3.64.28 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.

### 3.64.29 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.

### 3.64.30 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.

### 3.64.31 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.

## 3.64.32 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.

### 3.64.33 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.

### 3.64.34 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.

## 3.65 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.

## 3.65.1 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.

## 3.65.2 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.

### 3.65.3 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.

### 3.65.4 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.

## 3.65.5 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.

## 3.65.6 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.

### 3.65.7 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.

## 3.66 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..

### 3.66.1 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.

### 3.66.2 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.

## 3.67 Route Group Performance measurements

The Route Group Performance measurement group contains measurements that provide information that is specific to a Route Group.

### 3.67.1 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.

### 3.67.2 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.

### 3.67.3 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.

### 3.67.4 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.

### 3.67.5 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.

## 3.67.6 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.

## 3.67.7 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.

## 3.67.8 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.

## 3.67.9 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.

## 3.67.10 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.

## 3.67.11 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.

## 3.67.12 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.

## 3.67.13 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.

## 3.67.14 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.

## 3.67.15 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.

## 3.67.16 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.

### 3.67.17 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.

### 3.67.18 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.

## 3.67.19 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.

## 3.67.20 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.

## 3.68 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.

### 3.68.1 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 for assistance if needed.

## 3.68.2 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.

## 3.68.3 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 for assistance if needed.

## 3.68.4 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 for assistance if needed.

## 3.68.5 RouteListModifiedDestRealmSuccess

### Measurement ID

14876

### Measurement Group

Route List

### Measurement Type

Simple

### Measurement Dimension

Arrayed (by Route List ID)

**Destination Realm successfully modified in Route List.**

### 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.

## 3.68.6 RouteListModifiedDestHostSuccess

### Measurement ID

14877

**Measurement Group**

Route List

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed (by Route List ID)

**Destination Host successfully modified in Route List.****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.

### 3.68.7 RouteListModifiedOrgRealmSuccess

**Measurement ID**

14878

**Measurement Group**

Route List

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed (by Route List ID)

**Origin Realm successfully modified in Route List.****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.

### 3.68.8 RouteListModifiedOrgHostSuccess

**Measurement ID**

14879

**Measurement Group**

Route List

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed (by Route List ID)

**Origin Host successfully modified in Route List.**

**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.

### 3.68.9 TxAnswerLocalNodePeak

**Measurement ID**

14880

**Measurement Group**

Route List

**Measurement Type**

Max

**Measurement Dimension**

Arrayed (by Connection ID)

**Description**

Peak value of rate for number of Answer responses from local Node that were successfully routed to a downstream peer over a particular connection (all Result-Code values).

**Collection Interval**

5 min

**Peg Condition**

Output measurement of the TxAnswerLocalNodeRate metric

This measurement will get pegged only when TxAnswerLocalNode feature is enabled.

**Measurement Scope**

Site

Recovery

- No action required.

## 3.69 Routing Usage measurements

The Routing Usage measurement report allows you to evaluate how ingress Request messages are being routed internally within the **Relay Agent**.

### 3.69.1 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.

### 3.69.2 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.

### 3.69.3 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.

## 3.69.4 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.

## 3.69.5 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.

## 3.70 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.

### 3.70.1 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.

## 3.70.2 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.

### 3.70.3 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.

### 3.70.4 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.

### 3.70.5 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.

### 3.70.6 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.

## 3.70.7 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.

## 3.70.8 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.

### 3.70.9 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.

### 3.70.10 SbrImsiRecsAudited

**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.

### 3.70.11 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.

## 3.70.12 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.

## 3.70.13 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.

### 3.70.14 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.

### 3.70.15 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.

### 3.70.16 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.

### 3.70.17 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 for assistance.

## 3.70.18 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 for assistance.

## 3.70.19 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 for assistance.

## 3.70.20 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 for assistance.

### 3.70.21 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.

### 3.70.22 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.

### 3.70.23 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.

### 3.70.24 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.

## 3.70.25 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 .

### 3.70.26 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 .

### 3.70.27 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.

## 3.70.28 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 for assistance if needed.

## 3.70.29 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.

## 3.70.30 TxSbrAuditSReqSent

**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.

### 3.70.31 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.

### 3.70.32 TxSbrAuditSReqSentRatePeak

**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.

## 3.71 SBR Binding Performance measurements

The SBR Binding Performance measurement report contains measurements that provide performance information that is specific to the SBR Binding Database.

### 3.71.1 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.

## 3.71.2 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.

### 3.71.3 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.

### 3.71.4 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.

### 3.71.5 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.

### 3.71.6 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.

### 3.71.7 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.



### 3.71.8 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.

### 3.71.9 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.

### 3.71.10 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.

### 3.71.11 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.

## 3.71.12 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.

## 3.71.13 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.

## 3.71.14 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.

## 3.71.15 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 .

## 3.71.16 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 .

## 3.71.17 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 .

### 3.71.18 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 .

### 3.71.19 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.

### 3.71.20 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.



### 3.71.21 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.

### 3.71.22 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.

### 3.71.23 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.

## 3.72 SBR Binding Exception measurements

The SBR Binding Exception measurement report contains measurements that provide performance information that is specific to the SBR Binding Database.

### 3.72.1 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 not 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

### 3.72.2 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.

### 3.72.3 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 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

## 3.72.4 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.

### 3.72.5 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.

### 3.72.6 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.

## 3.72.7 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.

## 3.72.8 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.

## 3.72.9 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.

## 3.72.10 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 .

## 3.72.11 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 .

## 3.72.12 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 .

## 3.73 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.

### 3.73.1 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.

### 3.73.2 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.

### 3.73.3 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.

### 3.73.4 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.

### 3.73.5 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.

### 3.73.6 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.

### 3.73.7 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.

## 3.73.8 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.

## 3.73.9 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.

## 3.73.10 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.

## 3.73.11 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.

## 3.73.12 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.

### 3.73.13 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.

### 3.73.14 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.

### 3.73.15 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.

### 3.73.16 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.

### 3.73.17 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.

### 3.73.18 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.

### 3.73.19 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.

### 3.73.20 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.

### 3.73.21 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.

### 3.73.22 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.

### 3.73.23 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.

## 3.73.24 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.

## 3.73.25 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 CreateIpv4AltKeyFail, Release CreateIpv6AltKeyFail, 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.

## 3.73.26 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**.

## 3.74 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.

### 3.74.1 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

## 3.74.2 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.

## 3.74.3 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.

### 3.74.4 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.

### 3.74.5 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.

### 3.74.6 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.

### 3.74.7 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.

### 3.74.8 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.

### 3.74.9 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.

### 3.74.10 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.

### 3.74.11 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.

### 3.74.12 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**.

## 3.75 Server Exception measurements

### 3.75.1 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 for assistance if any unexpected non-zero values in this measurement occur.

## 3.75.2 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 for assistance if any unexpected non-zero values in this measurement occur.

## 3.76 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.

### 3.76.1 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 for assistance if needed.

## 3.76.2 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 for assistance if needed.

### 3.76.3 M3UAShutdownQueueFull

**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 for assistance if needed.

### 3.76.4 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 .

## 3.76.5 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 .

## 3.76.6 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 .

## 3.77 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.

### 3.77.1 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.

### 3.77.2 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.

### 3.77.3 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.

## 3.77.4 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.

## 3.77.5 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 for assistance if needed.

## 3.77.6 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 for assistance if needed.

## 3.77.7 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 .

## 3.77.8 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 .

## 3.78 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.

## 3.78.1 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.

## 3.78.2 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.

### 3.78.3 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.

## 3.78.4 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.

## 3.78.5 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.

## 3.78.6 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.

## 3.78.7 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.

## 3.79 Server MTP3 Exception measurements

The Server MTP3 Exception measurement report contains measurements that provide information about M3RL exceptions and unexpected messages and events.

### 3.79.1 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 for assistance.

## 3.79.2 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.

## 3.79.3 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.

## 3.79.4 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 for assistance if needed.

### 3.79.5 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**.

### 3.79.6 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.

## 3.79.7 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.

## 3.79.8 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.

## 3.79.9 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 for assistance if needed.

### 3.79.10 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 for assistance if needed.

## 3.80 Server MTP3 Performance measurements

### 3.80.1 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.

## 3.80.2 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 received 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.

### 3.80.3 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 for assistance if needed.

### 3.80.4 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 for assistance if needed.

## 3.80.5 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 for assistance if needed.

## 3.80.6 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 for assistance if needed.

## 3.81 Server Resource Usage measurements

### 3.81.1 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 for assistance if needed.

### 3.81.2 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 for assistance if needed.

### 3.81.3 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 for assistance if needed.

### 3.81.4 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 for assistance if needed.

## 3.81.5 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 for assistance if needed.

## 3.81.6 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 for assistance if needed.

## 3.81.7 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 for assistance if needed.

## 3.81.8 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 for assistance if needed.

## 3.82 Server SCCP Exception measurements

### 3.82.1 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 for assistance if any unexpected non-zero values in this measurement occur.

## 3.82.2 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 for assistance if any unexpected non-zero values in this measurement occur.

## 3.82.3 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 for assistance if needed.

## 3.82.4 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 for assistance if needed.

### 3.82.5 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 for assistance.

## 3.82.6 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.

## 3.82.7 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.

## 3.82.8 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 for assistance.



## 3.82.9 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.

## 3.82.10 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.

## 3.82.11 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.

## 3.82.12 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.

### 3.82.13 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.

### 3.82.14 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.

### 3.82.15 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.

## 3.82.16 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.

## 3.82.17 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**.

## 3.82.18 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]**.

## 3.82.19 RxSCCPXudtInvSgmnt

**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.

## 3.82.20 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.

## 3.82.21 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 for assistance if needed.

## 3.82.22 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.

## 3.82.23 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**.

## 3.82.24 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.

## 3.82.25 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.

## 3.82.26 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.

## 3.82.27 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.

## 3.82.28 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**.

## 3.82.29 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**.

## 3.82.30 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**.

### 3.82.31 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**.

## 3.83 Server SCCP Performance measurements

### 3.83.1 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.

### 3.83.2 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.

### 3.83.3 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.

### 3.83.4 TxSCMGMMsgs

**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**.

### 3.83.5 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 for assistance if needed.

### 3.83.6 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 for assistance if needed.

### 3.83.7 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.

## 3.83.8 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**.

### 3.83.9 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**.

### 3.83.10 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 for assistance if needed.

### 3.83.11 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 for assistance if needed.

## 3.83.12 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.

## 3.83.13 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.

### 3.83.14 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.

### 3.83.15 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.

### 3.83.16 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.



### 3.83.17 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.

### 3.83.18 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.

## 3.83.19 RxSCCPRtGtXudtSgmnt

**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.

## 3.83.20 RxSCCPRtSsnXudtSgmnt

**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.

### 3.83.21 RxSCCPSegmentSrcvMsg

**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.

### 3.83.22 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.

## 3.84 Server TCAP Exception measurements

### 3.84.1 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 for assistance in determining the exact cause of the failure.

## 3.84.2 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 for further assistance in determining the exact cause of the failure.

### 3.84.3 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 for further assistance in determining the exact cause of the failure.

### 3.84.4 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 for further assistance in determining the exact cause of the failure.

## 3.84.5 TCAPAbtPeerErr

**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 for further assistance in determining the exact cause of the failure.

## 3.84.6 TCAPAbtTcuErr

**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 for further assistance in determining the exact cause of the failure.

## 3.84.7 TCAPDialogueTbIFull

**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.

## 3.84.8 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.

## 3.84.9 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 as needed for further assistance.

## 3.84.10 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 for further assistance in determining the exact cause of the failure.

## 3.84.11 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 for further assistance in determining the exact cause of the failure.

## 3.84.12 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 for further assistance in determining the exact cause of the failure.

## 3.84.13 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 for further assistance in determining the exact cause of the failure.

## 3.84.14 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 for further assistance in determining the exact cause of the failure.

## 3.84.15 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 for further assistance in determining the exact cause of the failure.

## 3.84.16 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 for further assistance in determining the exact cause of the failure.

## 3.84.17 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.

## 3.84.18 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 for assistance if needed.

## 3.85 Server TCAP Performance measurements

### 3.85.1 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.

## 3.85.2 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.

## 3.85.3 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.

## 3.85.4 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.

## 3.85.5 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.

## 3.85.6 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.

### 3.85.7 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.

### 3.85.8 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.

## 3.85.9 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.

## 3.86 SS7 Exception measurements

### 3.86.1 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.

## 3.87 SS7 Performance measurements

### 3.87.1 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.

## 3.88 Task Performance measurements

The Task Performance measurement report contains measurements that provide task level performance information related to ingress statistics.

### 3.88.1 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.

## 3.88.2 TaskRxDropP0G

**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.

## 3.88.3 TaskRxDropP0Y

**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.

## 3.88.4 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.

## 3.88.5 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.

## 3.88.6 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.

## 3.88.7 TaskRxDropP2Y

**Measurement ID**

18399

**Measurement Group**

Task Performance

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed by &lt;TaskName&gt;

**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.

## 3.88.8 TaskRxDropP3G

**Measurement ID**

18384

**Measurement Group**

Task Performance

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed by &lt;TaskName&gt;

**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.

### 3.88.9 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.

### 3.88.10 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.

## 3.88.11 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.

## 3.88.12 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.

### 3.88.13 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.

### 3.88.14 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.

## 3.88.15 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.

## 3.88.16 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.

## 3.88.17 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.

## 3.88.18 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.

## 3.88.19 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.

## 3.88.20 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.

## 3.88.21 TaskRxDropP9Y

**Measurement ID**

18406

**Measurement Group**

Task Performance

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed by &lt;TaskName&gt;

**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.

## 3.88.22 TaskRxDropP10G

**Measurement ID**

18391

**Measurement Group**

Task Performance

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed by &lt;TaskName&gt;

**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.

## 3.88.23 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.

## 3.88.24 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.

## 3.88.25 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.

## 3.88.26 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.

## 3.88.27 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.

## 3.88.28 TaskRxDropP13G

**Measurement ID**

18394

**Measurement Group**

Task Performance

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed by &lt;TaskName&gt;

**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.

## 3.88.29 TaskRxDropP13Y

**Measurement ID**

18410

**Measurement Group**

Task Performance

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed by &lt;TaskName&gt;

**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.

### 3.88.30 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.

### 3.88.31 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.

## 3.88.32 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.

## 3.88.33 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.

## 3.89 Transport Exception measurements

The Transport Exception measurement group contains measurements that provide information about exceptions and unexpected events related to the Transport Manager.

### 3.89.1 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.

## 3.89.2 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 for assistance if needed.

### 3.89.3 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 for assistance if needed.

## 3.89.4 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 for assistance if needed.

### 3.89.5 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 for assistance if needed.

### 3.89.6 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 for assistance if needed.

## 3.89.7 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 for assistance if needed.

## 3.89.8 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 for assistance if needed.

### 3.89.9 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 for assistance if needed.

## 3.89.10 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 for assistance if needed.

## 3.90 Transport Usage measurements

The Transport Usage measurement group contains measurements that provide information about the usage of the Transport Manager.

### 3.90.1 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 for assistance if needed.

## 3.90.2 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 for assistance if needed.

### 3.90.3 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.

### 3.90.4 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.

## 3.91 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.

### 3.91.1 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.

## 3.91.2 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.

## 3.91.3 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.

## 3.91.4 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.

## 3.91.5 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

## 3.91.6 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

### 3.91.7 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.

### 3.91.8 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.

### 3.91.9 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

### 3.91.10 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

## 3.91.11 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.

## 3.91.12 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.

## 3.91.13 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.

## 3.91.14 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.

## 3.91.15 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.

## 3.91.16 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.

### 3.91.17 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.

### 3.91.18 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.

### 3.91.19 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

### 3.91.20 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 excpetion 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.

## 3.92 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.

### 3.92.1 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.

## 3.92.2 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.

### 3.92.3 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.

### 3.92.4 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.

### 3.92.5 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.

## 3.92.6 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.

### 3.92.7 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.

### 3.92.8 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.

## 3.92.9 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.

### 3.92.10 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.

### 3.92.11 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.

### 3.92.12 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.

### 3.92.13 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.

### 3.92.14 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.

## 3.92.15 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 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.

## 3.92.16 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.

## 3.92.17 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.

### 3.92.18 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.

### 3.92.19 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.

### 3.92.20 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.

## 3.92.21 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.

## 3.92.22 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.

### 3.92.23 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.

## 3.93 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.

### 3.93.1 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.

### 3.93.2 TtpDivertedInPOY

**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.

### 3.93.3 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.

### 3.93.4 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.

### 3.93.5 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.

### 3.93.6 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.

### 3.93.7 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.

### 3.93.8 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.

### 3.93.9 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.

### 3.93.10 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.

### 3.93.11 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.

### 3.93.12 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.

### 3.93.13 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.

### 3.93.14 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.

### 3.93.15 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.

### 3.93.16 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.

### 3.93.17 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.

### 3.93.18 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.

### 3.93.19 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.

### 3.93.20 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.

### 3.93.21 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.

### 3.93.22 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.

### 3.93.23 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.

### 3.93.24 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.

### 3.93.25 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.

### 3.93.26 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.

### 3.93.27 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.

### 3.93.28 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.

### 3.93.29 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.

### 3.93.30 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.

### 3.93.31 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.

### 3.93.32 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.

### 3.93.33 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.

### 3.93.34 TtpDivertedOutP0Y

**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.

### 3.93.35 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.

### 3.93.36 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.

### 3.93.37 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.

### 3.93.38 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.

### 3.93.39 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

### 3.93.40 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 TTG. Additionally:

- Transaction was diverted
- Message Priority = 3
- Message Color = Yellow

**Measurement Scope**

Site

Recovery

- None

### 3.93.41 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

### 3.93.42 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

### 3.93.43 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

### 3.93.44 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

### 3.93.45 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

### 3.93.46 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

### 3.93.47 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

### 3.93.48 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

### 3.93.49 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

### 3.93.50 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

### 3.93.51 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

### 3.93.52 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

### 3.93.53 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

### 3.93.54 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

### 3.93.55 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

### 3.93.56 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

## 3.93.57 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

### 3.93.58 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

### 3.93.59 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

### 3.93.60 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

### 3.93.61 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

### 3.93.62 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

### 3.93.63 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

### 3.93.64 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

### 3.93.65 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.

### 3.93.66 TtpDropP0G

**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.

### 3.93.67 TtpDropP0Y

**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.

## 3.93.68 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.

### 3.93.69 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.

### 3.93.70 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.

## 3.93.71 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.

### 3.93.72 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.

### 3.93.73 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.

### 3.93.74 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.

### 3.93.75 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.

### 3.93.76 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.

### 3.93.77 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.

### 3.93.78 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.

## 3.93.79 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.

### 3.93.80 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.

### 3.93.81 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.

## 3.93.82 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.

### 3.93.83 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.

### 3.93.84 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.

### 3.93.85 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.

### 3.93.86 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.

## 3.93.87 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.

### 3.93.88 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.

### 3.93.89 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.

## 3.93.90 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.

### 3.93.91 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.

### 3.93.92 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.

### 3.93.93 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.



### 3.93.94 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.

### 3.93.95 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.

### 3.93.96 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.

### 3.93.97 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.

### 3.93.98 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.

### 3.93.99 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.

### 3.93.100 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.

### 3.93.101 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.

### 3.93.102 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.

### 3.93.103 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.

### 3.93.104 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.

### 3.93.105 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

### 3.93.106 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

### 3.93.107 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.

### 3.93.108 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.

### 3.93.109 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

### 3.93.110 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

### 3.93.111 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

### 3.93.112 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

### 3.93.113 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

### 3.93.114 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

### 3.93.115 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

### 3.93.116 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

### 3.93.117 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

### 3.93.118 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

### 3.93.119 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

### 3.93.120 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

### 3.93.121 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

### 3.93.122 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

### 3.93.123 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

### 3.93.124 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

### 3.93.125 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

### 3.93.126 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

### 3.93.127 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

### 3.93.128 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

### 3.93.129 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

### 3.93.130 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

### 3.93.131 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.

### 3.93.132 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.

### 3.93.133 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.

### 3.93.134 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 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.

## 3.93.135 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.

## 3.93.136 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.

## 3.93.137 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.

### 3.93.138 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.

### 3.93.139 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.

## 3.94 U-SBR Performance measurements

The U-SBR Performance measurement report contains measurements that provide performance information that is specific to the U-SBR.

### 3.94.1 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.

## 3.94.2 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.

## 3.94.3 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.

## 3.94.4 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.

### 3.94.5 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.

### 3.94.6 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.

### 3.94.7 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.

### 3.94.8 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.

## 3.94.9 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.

## 3.94.10 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.

## 3.95 vSTP Measurements

The vSTP measurement reports contain measurements that provide information specific to vSTP.

### 3.95.1 vENUM Exception Measurements

#### 3.95.1.1 EnumQueryReject

**Measurement ID**

22260

**Measurement Group**

vENUM Exception

**Measurement Type**

Simple

**Measurement Dimension**

Single

**Description**

Total number of ENUM queries rejected by ENUM server.

**Collection Interval**

5 min

**Peg Condition**

When an ENUM query is rejected by ENUM server.

**Measurement Scope**

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

### 3.95.1.2 EnumQueryCongestionDiscard

**Measurement ID**

22261

**Measurement Group**

vENUM Exception

**Measurement Type**

Simple

**Measurement Dimension**

Single

**Description**

Total number of ENUM queries discarded due to congestion

**Collection Interval**

5 min

**Peg Condition**

When an ENUM query is discarded due to congestion.

**Measurement Scope**

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

### 3.95.1.3 EnumTxRC1

**Measurement ID**

22263

**Measurement Group**

vENUM Exception

**Measurement Type**

Simple

**Measurement Dimension**

Single

**Description**

Total number of ENUM error response sent due to ENUM Query format error.

**Collection Interval**

5 min

**Peg Condition**

When an ENUM error response is sent due to ENUM Query format error.

**Measurement Scope**

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

### 3.95.1.4 EnumTxRC2

**Measurement ID**

22264

**Measurement Group**

vENUM Exception

**Measurement Type**

Simple

**Measurement Dimension**

Single

**Description**

Total number of ENUM error response sent due to ENUM Server failure.

**Collection Interval**

5 min

**Peg Condition**

When an ENUM error response is sent due to ENUM Server failure.

**Measurement Scope**

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

### 3.95.1.5 EnumTxRC3

**Measurement ID**

22265

**Measurement Group**

vENUM Exception

**Measurement Type**

Simple

**Measurement Dimension**

Single

**Description**

Total number of ENUM error response sent due to non-existent domain error.

**Collection Interval**

5 min

**Peg Condition**

When an ENUM error response is sent due to non-existent domain error.

**Measurement Scope**

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

### 3.95.1.6 EnumTxRC4

**Measurement ID**

22266

**Measurement Group**

vENUM Exception

**Measurement Type**

Simple

**Measurement Dimension**

Single

**Description**

Total number of ENUM error response sent due to not implemented error.

**Collection Interval**

5 min

**Peg Condition**

When an ENUM error response is sent due to not implemented error.

**Measurement Scope**

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

### 3.95.1.7 EnumTxRC5

**Measurement ID**

22267

**Measurement Group**

vENUM Exception

**Measurement Type**

Simple

**Measurement Dimension**

Single

**Description**

Total number of ENUM error response sent due to refusal by ENUM server.

**Collection Interval**

5 min



**Peg Condition**

When an ENUM error response is sent due to refusal by ENUM server.

**Measurement Scope**

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

### 3.95.1.8 EnumUdrLookupFailure

**Measurement ID**

22277

**Measurement Group**

vENUM Exception

**Measurement Type**

Simple

**Measurement Dimension**

Single

**Description**

ENUM record not found in UDR or UDR not available.

**Collection Interval**

5 min

**Peg Condition**

When an ENUM record not found in UDR or UDR is not available.

**Measurement Scope**

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

### 3.95.1.9 VenumStackQueueFull

**Measurement ID**

22282

**Measurement Group**

vENUM Exception

**Measurement Type**

Simple

**Measurement Dimension**

Single

**Description**

The number of ingress messages that were discarded because the vENUM Event Queue was full.

**Collection Interval**

5 min

**Peg Condition**

The number of ingress messages that were discarded because the vENUM Event Queue was full.

**Measurement Scope**

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

### 3.95.1.10 VenumUDPStackQueueFull

**Measurement ID**

22283

**Measurement Group**

vENUM Exception

**Measurement Type**

Simple

**Measurement Dimension**

Single

**Description**

The number of ingress messages that were discarded because the vENUM Udp Event Queue was full.

**Collection Interval**

5 min

**Peg Condition**

The number of ingress messages that were discarded because the vENUM Udp Event Queue was full.

**Measurement Scope**

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

## 3.95.2 vENUM Performance Measurements

### 3.95.2.1 EnumQueryRx

**Measurement ID**

22256

**Measurement Group**

vENUM Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single

**Description**

Total number of ENUM queries received.

**Collection Interval**

5 min

**Peg Condition**

When an ENUM query is received.

**Measurement Scope**

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

### 3.95.2.2 NaptrQueryRx

**Measurement ID**

22257

**Measurement Group**

vENUM Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single

**Description**

Total number of NAPTR queries received.

**Collection Interval**

5 min

**Peg Condition**

When a NAPTR query is received.

**Measurement Scope**

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

### 3.95.2.3 EnumQueryRx

**Measurement ID**

22258

**Measurement Group**

vENUM Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single

**Description**

Total number of NS queries received..

**Collection Interval**

5 min

**Peg Condition**

When an NS query is received.

**Measurement Scope**

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

### 3.95.2.4 CnameQueryRx

**Measurement ID**

22259

**Measurement Group**

vENUM Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single

**Description**

Total number of CNAME queries received.

**Collection Interval**

5 min

**Peg Condition**

When a CNAME query is received.

**Measurement Scope**

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

### 3.95.2.5 SuccessfulEnumTx

**Measurement ID**

22262

**Measurement Group**

vENUM Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single

**Description**

Total number of successful ENUM response sent.

**Collection Interval**

5 min

**Peg Condition**

When a successful ENUM response is sent.

**Measurement Scope**

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

### 3.95.2.6 EnumTxDefltProfile

**Measurement ID**

22268

**Measurement Group**

vENUM Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single

**Description**

Total number ENUM responses sent with default ENUM profile.

**Collection Interval**

5 min

**Peg Condition**

When an ENUM response is sent with default ENUM profile.

**Measurement Scope**

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

### 3.95.2.7 VenumEventQueuePeak

**Measurement ID**

22278

**Measurement Group**

vENUM Performance

**Measurement Type**

Max

**Measurement Dimension**

Single

**Description**

The peak vENUM Event Queue utilization measured during the collection interval.

**Collection Interval**

5 min

**Peg Condition**

The maximum vENUM Event Queue utilization sample taken during the collection interval.

**Measurement Scope**

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

### 3.95.2.8 VenumEventQueueAvg

**Measurement ID**

22279

**Measurement Group**

vENUM Performance

**Measurement Type**

Average

**Measurement Dimension**

Single

**Description**

The average vENUM Event Queue utilization (0-100%) measured during the collection interval.

**Collection Interval**

5 min

**Peg Condition**

The average of all vENUM Event Queue utilization samples taken during the collection interval.

**Measurement Scope**

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

### 3.95.2.9 VenumUdpEventQueuePeak

**Measurement ID**

22280

**Measurement Group**

vENUM Performance

**Measurement Type**

Max

**Measurement Dimension**

Single

**Description**

The peak vENUM Udp Event Queue utilization measured during the collection interval.

**Collection Interval**

5 min

**Peg Condition**

The maximum vENUM Udp Event Queue utilization sample taken during the collection interval.

**Measurement Scope**

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

### 3.95.2.10 VenumUdpEventQueueAvg

**Measurement ID**

22281

**Measurement Group**

vENUM Performance

**Measurement Type**

Average

**Measurement Dimension**

Single

**Description**

The average vENUM Udp Event Queue utilization (0-100%) measured during the collection interval.

**Collection Interval**

5 min

**Peg Condition**

The average of all vENUM Udp Event Queue utilization samples taken during the collection interval.

**Measurement Scope**

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

### 3.95.2.11 EnumQueryRxPeak

**Measurement ID**

22289

**Measurement Group**

vENUM Performance

**Measurement Type**

Max

**Measurement Dimension**

Single

**Description**

Maximum number of ENUM queries sent. Measured in messages per second.

**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.



### 3.95.2.12 EnumQueryRxAvg

**Measurement ID**

22290

**Measurement Group**

vENUM Performance

**Measurement Type**

Average

**Measurement Dimension**

Single

**Description**

Average number of ENUM queries received. Measured in messages per second.

**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.

### 3.95.2.13 SuccessfulEnumTxPeak

**Measurement ID**

22391

**Measurement Group**

vENUM Performance

**Measurement Type**

Max

**Measurement Dimension**

Single

**Description**

Maximum number of ENUM queries sent. Measured as a percentage of the TxBuffer.

**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.

## 3.95.3 vENUM MP Performance Measurements

### 3.95.3.1 VenumMpCpuPeak

**Measurement ID**

22284

**Measurement Group**

vENUM MP Performance

**Measurement Type**

Max

**Measurement Dimension**

Single

**Description**

vENUM MP peak CPU utilization by vENUM process.

**Collection Interval**

5 min

**Peg Condition**

The maximum vENUM MP CPU utilization sample taken during the collection interval.

**Measurement Scope**

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

### 3.95.3.2 VenumMpCpuAvg

**Measurement ID**

22285

**Measurement Group**

vENUM MP Performance

**Measurement Type**

Average

**Measurement Dimension**

Single

**Description**

vENUM MP average CPU utilization by vENUM process.

**Collection Interval**

5 min

**Peg Condition**

The average of all vENUM MP CPU utilization samples taken during the collection interval.

**Measurement Scope**

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if assistance is needed.

## 3.95.4 vSTP Association Exception measurements

### 3.95.4.1 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.

### 3.95.4.2 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.

### 3.95.4.3 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.

### 3.95.4.4 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

### 3.95.4.5 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.

### 3.95.4.6 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.

### 3.95.4.7 VstpRxAsnRecvFail

**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.

### 3.95.4.8 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.

### 3.95.4.9 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.

### 3.95.4.10 VstpRxAsnErrorMsg

**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.

### 3.95.4.11 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.

### 3.95.4.12 VstpRxAsnInvalidM3ua

**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.

### 3.95.4.13 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.

### 3.95.4.14 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.

## 3.95.5 vSTP Association Usages measurements

### 3.95.5.1 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.

### 3.95.5.2 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.

## 3.95.6 vSTP CDPA TT measurements

### 3.95.6.1 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.

### 3.95.6.2 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.

### 3.95.6.3 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.

### 3.95.6.4 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.

### 3.95.6.5 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.

### 3.95.6.6 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.

### 3.95.6.7 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.

### 3.95.6.8 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.

### 3.95.6.9 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.



### 3.95.6.10 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.

## 3.95.7 vSTP CGPA TT measurements

### 3.95.7.1 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.

### 3.95.7.2 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.

### 3.95.7.3 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.

### 3.95.7.4 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.

### 3.95.7.5 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.

### 3.95.7.6 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.

### 3.95.7.7 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.

### 3.95.7.8 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.

### 3.95.7.9 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.

### 3.95.7.10 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.

## 3.95.8 vSTP Connection measurements

### 3.95.8.1 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.

### 3.95.8.2 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.

### 3.95.8.3 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.

### 3.95.8.4 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.

### 3.95.8.5 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.

### 3.95.8.6 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.

### 3.95.8.7 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.

### 3.95.8.8 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

### 3.95.8.9 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.

## 3.95.9 vSTP Connection Exception measurements

### 3.95.9.1 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.

## 3.95.10 vSTP Connection Performance measurements

### 3.95.10.1 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.

### 3.95.10.2 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.

### 3.95.10.3 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.

### 3.95.10.4 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.

### 3.95.10.5 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.

### 3.95.10.6 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.

### 3.95.10.7 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.

### 3.95.10.8 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.

### 3.95.10.9 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.

### 3.95.10.10 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.

## 3.95.11 vSTP Exception measurements

### 3.95.11.1 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.

### 3.95.11.2 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.

### 3.95.11.3 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.

### 3.95.11.4 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.

### 3.95.11.5 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.

### 3.95.11.6 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.

### 3.95.11.7 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.

### 3.95.11.8 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.

### 3.95.11.9 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.

### 3.95.11.10 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.

## 3.95.12 vSTP IDPR Performance measurements

### 3.95.12.1 VstpSccpIdprCdpn

**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.

### 3.95.12.2 VstpSccpIdprCdpn2

**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.

### 3.95.12.3 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.

### 3.95.12.4 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.

### 3.95.12.5 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.

### 3.95.12.6 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.

### 3.95.12.7 VstpSccpIdpSkgtart

**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.

### 3.95.12.8 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.

### 3.95.12.9 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.

### 3.95.12.10 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.

### 3.95.12.11 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.

### 3.95.12.12 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.

### 3.95.12.13 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.

### 3.95.12.14 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.

### 3.95.12.15 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.

### 3.95.12.16 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.

### 3.95.12.17 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.

### 3.95.12.18 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.

### 3.95.12.19 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.

### 3.95.12.20 VstpSccpIdpSkrted

**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.

### 3.95.12.21 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.

### 3.95.12.22 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.

### 3.95.12.23 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.

### 3.95.12.24 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.

### 3.95.12.25 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.

### 3.95.12.26 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.

### 3.95.12.27 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.

### 3.95.12.28 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.

### 3.95.12.29 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.

### 3.95.12.30 VstpSccpIdpSkgtart2

**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.

### 3.95.12.31 VstpSccpIdpSkgtart3

**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.

### 3.95.12.32 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.

### 3.95.12.33 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.

### 3.95.12.34 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.

### 3.95.12.35 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.

## 3.95.13 vSTP Licensing Measurements

The vSTP Licensing measurement report contains measurements providing information about Network Mps for vSTP.

### 3.95.13.1 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.

### 3.95.13.2 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.

### 3.95.13.3 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.

### 3.95.13.4 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.

### 3.95.13.5 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.

### 3.95.13.6 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.

## 3.95.14 vSTP Link Exception measurements

### 3.95.14.1 VstpRxLnkErrorMsg

**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.

### 3.95.14.2 VstpRxLnkInvalidMsg

**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.

### 3.95.14.3 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.

### 3.95.14.4 VstpTxLnkMaxTpsExceeded

**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.

### 3.95.14.5 VstpRxLnkMgmtTpsExceeded

**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.

### 3.95.14.6 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.

### 3.95.14.7 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.

### 3.95.14.8 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.

### 3.95.14.9 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.

### 3.95.14.10 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.

### 3.95.14.11 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.

## 3.95.15 vSTP Link Performance measurements

### 3.95.15.1 VstpRxLnkMSU

**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.

### 3.95.15.2 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

### 3.95.15.3 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

### 3.95.15.4 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

### 3.95.15.5 VstpRxLnkMSUOctets

**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.

### 3.95.15.6 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 linkset.

**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.

### 3.95.15.7 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.



### 3.95.15.8 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.

### 3.95.15.9 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.

### 3.95.15.10 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.

### 3.95.15.11 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.

### 3.95.15.12 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.

## 3.95.16 vSTP Link Usage measurements

### 3.95.16.1 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.

### 3.95.16.2 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.

### 3.95.16.3 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.

### 3.95.16.4 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.

### 3.95.16.5 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.

### 3.95.16.6 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.

### 3.95.16.7 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.

### 3.95.16.8 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.

### 3.95.16.9 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.

### 3.95.16.10 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.

### 3.95.16.11 VstpRxRPOMsg

**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.

### 3.95.16.12 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.

## 3.95.17 vSTP Linkset Performance measurements

### 3.95.17.1 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.

### 3.95.17.2 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. 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 sent on a link in the linkset.

**Measurement Scope**

Site

Recovery

- No action required.

### 3.95.17.3 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.

### 3.95.17.4 VstpRxLnksetScrPerformed

**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.

### 3.95.17.5 VstpRxM3rllnkSetDataOctetsRequireGTT

**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.

## 3.95.18 vSTP M2PA Exception measurements

### 3.95.18.1 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.

### 3.95.18.2 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.

### 3.95.18.3 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.

## 3.95.19 vSTP M2PA Link Exception measurements

### 3.95.19.1 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.

### 3.95.19.2 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.

### 3.95.19.3 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.

### 3.95.19.4 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.

### 3.95.19.5 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.

### 3.95.19.6 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.

### 3.95.19.7 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.

### 3.95.19.8 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.

### 3.95.19.9 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.

### 3.95.19.10 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.

### 3.95.19.11 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.

### 3.95.19.12 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.

### 3.95.19.13 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.

### 3.95.19.14 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 pee 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.

### 3.95.19.15 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.

## 3.95.20 vSTP M2PA Link Performance measurements

### 3.95.20.1 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.

### 3.95.20.2 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.



### 3.95.20.3 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.

### 3.95.20.4 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.

### 3.95.20.5 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.

### 3.95.20.6 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.

## 3.95.21 vSTP M2PA Performance measurements

### 3.95.21.1 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.

### 3.95.21.2 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.

### 3.95.21.3 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.

### 3.95.21.4 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.

### 3.95.21.5 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.

## 3.95.22 vSTP M3UA Exception measurements

### 3.95.22.1 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.

### 3.95.22.2 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.

### 3.95.22.3 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.

### 3.95.22.4 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.

### 3.95.22.5 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.

### 3.95.22.6 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.

## 3.95.23 vSTP M3UA Performance measurements

### 3.95.23.1 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.

### 3.95.23.2 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.

### 3.95.23.3 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.

### 3.95.23.4 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.

## 3.95.24 vSTP M3UA Usage measurements

### 3.95.24.1 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.

### 3.95.24.2 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.

### 3.95.24.3 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.

### 3.95.24.4 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.

### 3.95.24.5 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.

### 3.95.24.6 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.

### 3.95.24.7 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.

### 3.95.24.8 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.

### 3.95.24.9 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.

### 3.95.24.10 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.

### 3.95.24.11 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.

### 3.95.24.12 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.

### 3.95.24.13 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.

### 3.95.24.14 VstpTxASPIinactiveAck

**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.

### 3.95.24.15 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.

### 3.95.24.16 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.

### 3.95.24.17 VstpRxASPIinactive

**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.

### 3.95.24.18 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.

### 3.95.24.19 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.

### 3.95.24.20 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.

### 3.95.24.21 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.

### 3.95.24.22 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.

### 3.95.24.23 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.

### 3.95.24.24 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.

### 3.95.24.25 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.

### 3.95.24.26 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.

### 3.95.24.27 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.

### 3.95.24.28 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.

### 3.95.24.29 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.

### 3.95.24.30 VstpTxASPUUp

**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.

### 3.95.24.31 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.

### 3.95.24.32 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.

### 3.95.24.33 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.

### 3.95.24.34 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.

### 3.95.24.35 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.

### 3.95.24.36 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.

### 3.95.24.37 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.

### 3.95.24.38 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.

### 3.95.24.39 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.

### 3.95.24.40 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.

### 3.95.24.41 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.

### 3.95.24.42 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.

### 3.95.24.43 VstpRxASPIinactiveAck

**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.

### 3.95.24.44 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.

## 3.95.25 vSTP MNP Exception measurements

### 3.95.25.1 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.

### 3.95.25.2 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.

### 3.95.25.3 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.

### 3.95.25.4 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.

### 3.95.25.5 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.

### 3.95.25.6 VstpAtiNpDiscIntErr

**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.

### 3.95.25.7 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.

### 3.95.25.8 vstpGportSriRspWithoutUDRlookup

**Measurement ID**

22315

**Measurement Group**

vSTP MNP Exception

**Measurement Type**

Simple

**Measurement Dimension**

Single

**Description**

Number of vSTP Gport SRI messages for which NACK response is sent while waiting for UDR response.

**Collection Interval**

5 min

**Peg Condition**

This measurement peg when there is vSTP Gport SRI messages for which NACK response is sent while waiting for UDR response.

**Measurement Scope**

NE, Server

Recovery

- No action necessary.

## 3.95.26 vSTP MNP Performance measurements

### 3.95.26.1 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.

### 3.95.26.2 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.

### 3.95.26.3 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.

### 3.95.26.4 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.

### 3.95.26.5 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.

### 3.95.26.6 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.

### 3.95.26.7 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.

### 3.95.26.8 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.

### 3.95.26.9 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.

### 3.95.26.10 vstpGportSriAck

**Measurement ID**

22307

**Measurement Group**

vSTP MNP Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single

**Description**

Number of vSTP Gport SRI ACK responses generated.

**Collection Interval**

5 min

**Peg Condition**

This measurement peg when there is vSTP Gport SRI ACK response is generated.

**Measurement Scope**

NE, Server

Recovery

- No action necessary.

### 3.95.26.11 vstpGportSriNack

**Measurement ID**

22308

**Measurement Group**

vSTP MNP Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single

**Description**

Number of vSTP Gport SRI NACK responses generated

**Collection Interval**

5 min

**Peg Condition**

This measurement peg when vSTP Gport SRI NACK response is generated.

**Measurement Scope**

NE, Server

Recovery

- No action necessary.

### 3.95.26.12 vstpGportSriRelay

**Measurement ID**

22309

**Measurement Group**

vSTP MNP Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single

**Description**

Number of vSTP Gport SRI Relays generated

**Collection Interval**

5 min

**Peg Condition**

This measurement peg when vSTP Gport SRI Relay is generated.

**Measurement Scope**

NE, Server

Recovery

- No action necessary.

### 3.95.26.13 vstpGportSriSmAck

**Measurement ID**

22310

**Measurement Group**

vSTP MNP Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single

**Description**

Number of vSTP Gport SRISM ACK responses generated

**Collection Interval**

5 min

**Peg Condition**

This measurement peg when vSTP Gport SRISM ACK response is generated.

**Measurement Scope**

NE, Server

Recovery

- No action necessary.

### 3.95.26.14 vstpGportSriSmNack

**Measurement ID**

22311

**Measurement Group**

vSTP MNP Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single



**Description**

Number of vSTP Gport SRISM NACK responses generated

**Collection Interval**

5 min

**Peg Condition**

This measurement peg when there is vSTP Gport SRISM NACK response is generated.

**Measurement Scope**

NE, Server

Recovery

- No action necessary.

### 3.95.26.15 vstpGportSriSmRelay

**Measurement ID**

22312

**Measurement Group**

vSTP MNP Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single

**Description**

Number of vSTP Gport SRISM Relays generated

**Collection Interval**

5 min

**Peg Condition**

This measurement peg when vSTP Gport SRISM Relay is generated.

**Measurement Scope**

NE, Server

Recovery

- No action necessary.

### 3.95.26.16 vstpGportDNSrinotFound

**Measurement ID**

22313

**Measurement Group**

vSTP MNP Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single

**Description**

Number of vSTP Gport SRI messages for which MSISDN is not found in UDR

**Collection Interval**

5 min

**Peg Condition**

This measurement peg when there is vSTP Gport SRI messages for which MSISDN is not found in UDR.

**Measurement Scope**

NE, Server

Recovery

- No action necessary.

### 3.95.26.17 vstpGportDNSriSmnotFound

**Measurement ID**

22314

**Measurement Group**

vSTP MNP Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single

**Description**

Number of vSTP Gport SRISM messages for which MSISDN is not found in UDR

**Collection Interval**

5 min

**Peg Condition**

This measurement peg when there is vSTP Gport SRISM messages for which MSISDN is not found in UDR.

**Measurement Scope**

NE, Server

Recovery

- No action necessary.

### 3.95.26.18 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.

### 3.95.26.19 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.

### 3.95.26.20 VstpMnpCAQueryProcesTime

**Measurement ID**

21666

**Measurement Group**

vSTP MNP Performance

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed

**Description**

CA time required to send a query and receive a response from UDR.

**Collection Interval**

5 min

**Peg Condition**

This measurement returns the CA time required to send a query and receive a response from UDR.

**Measurement Scope**

NE, Server

Recovery

- No action necessary.

### 3.95.26.21 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.

### 3.95.26.22 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.

### 3.95.26.23 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.

### 3.95.26.24 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.

### 3.95.26.25 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.

### 3.95.26.26 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.

### 3.95.26.27 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.

### 3.95.26.28 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.

### 3.95.26.29 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.

### 3.95.26.30 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.

### 3.95.26.31 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.

### 3.95.26.32 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.

### 3.95.26.33 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.

### 3.95.26.34 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.

### 3.95.26.35 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.

### 3.95.26.36 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.

### 3.95.26.37 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.

### 3.95.26.38 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.

### 3.95.26.39 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.

## 3.95.27 vSTP MOSMS Performance measurements

### 3.95.27.1 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.

### 3.95.27.2 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.

### 3.95.27.3 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.

### 3.95.27.4 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.

## 3.95.28 vSTP MTP2 Performance measurements

### 3.95.28.1 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.

### 3.95.28.2 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.

### 3.95.28.3 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.

### 3.95.28.4 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.

### 3.95.28.5 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.

### 3.95.28.6 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.

### 3.95.28.7 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.

### 3.95.28.8 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.

### 3.95.28.9 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.

### 3.95.28.10 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.

### 3.95.28.11 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.

## 3.95.29 vSTP MTP2 Exception measurements

### 3.95.29.1 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.

### 3.95.29.2 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.

### 3.95.29.3 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.

### 3.95.29.4 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.

### 3.95.29.5 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.

### 3.95.29.6 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.

### 3.95.29.7 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.

### 3.95.29.8 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.

### 3.95.29.9 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.

### 3.95.29.10 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.

### 3.95.29.11 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.

### 3.95.29.12 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.

### 3.95.29.13 VstpMtp2RxLnkMSUInError

**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.

### 3.95.29.14 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.

### 3.95.29.15 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.

### 3.95.29.16 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.

### 3.95.29.17 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.

### 3.95.29.18 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.

### 3.95.29.19 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.

### 3.95.29.20 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.

### 3.95.29.21 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.

### 3.95.30 vSTP MTP3 Exception measurements

### 3.95.30.1 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.

### 3.95.30.2 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.

### 3.95.30.3 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.

### 3.95.30.4 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

### 3.95.30.5 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.

### 3.95.30.6 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 thr 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.

### 3.95.30.7 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.

### 3.95.30.8 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.

### 3.95.30.9 VstpRxLnksetMSUScrDiscard

**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.

### 3.95.30.10 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.

### 3.95.30.11 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.

### 3.95.30.12 VstpM3UAStackQueueFull

**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.

### 3.95.30.13 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.

### 3.95.30.14 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.

### 3.95.30.15 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.

### 3.95.30.16 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.

### 3.95.30.17 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.

### 3.95.30.18 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.

### 3.95.30.19 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.

### 3.95.30.20 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.

### 3.95.30.21 VstpMnpDiscIntErr

**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.

### 3.95.30.22 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.

### 3.95.30.23 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.

### 3.95.30.24 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.

### 3.95.30.25 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.

### 3.95.30.26 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.

### 3.95.30.27 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](#).

### 3.95.30.28 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](#).

### 3.95.30.29 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](#).

### 3.95.30.30 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.

### 3.95.30.31 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.

## 3.95.31 vSTP MTP3 Performance measurements

### 3.95.31.1 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.

### 3.95.31.2 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.

### 3.95.31.3 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

### 3.95.31.4 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

### 3.95.31.5 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

### 3.95.31.6 VstpM3rlMsgToMTP3User

**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

### 3.95.31.7 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.

### 3.95.31.8 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.

### 3.95.31.9 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.

### 3.95.31.10 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.

### 3.95.31.11 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.

### 3.95.31.12 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.

### 3.95.31.13 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.

### 3.95.31.14 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.

### 3.95.31.15 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.

### 3.95.31.16 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.

### 3.95.31.17 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.

## 3.95.32 vSTP Performance measurements

### 3.95.32.1 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.

### 3.95.32.2 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.

### 3.95.32.3 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.

### 3.95.32.4 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.

### 3.95.32.5 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.

### 3.95.32.6 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.

### 3.95.32.7 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.

### 3.95.32.8 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.

### 3.95.32.9 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.

### 3.95.32.10 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.

### 3.95.32.11 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.

### 3.95.32.12 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.

### 3.95.32.13 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.

### 3.95.32.14 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.

### 3.95.32.15 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.

### 3.95.32.16 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.

### 3.95.33 vSTP SCCP Exception measurements

### 3.95.33.1 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.

### 3.95.33.2 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.

### 3.95.33.3 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.

### 3.95.33.4 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.

### 3.95.33.5 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.

### 3.95.33.6 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.

### 3.95.33.7 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.

### 3.95.33.8 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.

### 3.95.33.9 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.

### 3.95.33.10 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](#).

### 3.95.33.11 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.

### 3.95.33.12 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.

### 3.95.33.13 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.

### 3.95.33.14 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.

### 3.95.33.15 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.

### 3.95.33.16 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.

## 3.95.34 vSTP SCCP Performance measurements

### 3.95.34.1 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.

### 3.95.34.2 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.

### 3.95.34.3 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.

### 3.95.34.4 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.

### 3.95.34.5 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.

### 3.95.34.6 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.

### 3.95.34.7 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.

### 3.95.34.8 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.

### 3.95.34.9 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.

### 3.95.34.10 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.

### 3.95.34.11 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.

### 3.95.34.12 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.

### 3.95.34.13 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.

### 3.95.34.14 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.

### 3.95.34.15 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.

### 3.95.34.16 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.

### 3.95.34.17 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.

### 3.95.34.18 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.

### 3.95.34.19 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.

### 3.95.34.20 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.

### 3.95.34.21 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.

### 3.95.34.22 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.

### 3.95.34.23 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.

### 3.95.34.24 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.

### 3.95.34.25 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.

### 3.95.34.26 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.

### 3.95.34.27 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.

### 3.95.34.28 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.

### 3.95.34.29 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.

### 3.95.34.30 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.

### 3.95.34.31 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.

### 3.95.34.32 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.

### 3.95.34.33 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.

### 3.95.34.34 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.

### 3.95.34.35 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.

### 3.95.34.36 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.

### 3.95.34.37 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.

### 3.95.34.38 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.

### 3.95.34.39 VstpGenUdtsOnOpcTx

**Measurement ID**

22292

**Measurement Group**

VSTP SCCP Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single

**Description**

Number of self generated UDTs failed on CDPA GT and routed on OPC.

**Collection Interval**

5 min

**Peg Condition**

When VSTP generated UDTs fails translation on CDPA GT and routed on OPC.

**Measurement Scope**

NE, Server

Recovery

- It is recommended to contact [My Oracle Support](#) if further assistance is needed.

## 3.95.35 vSTP SCCP Usage measurements

**Section Title**

### 3.95.35.1 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.

## 3.95.36 vSTP Server Exception measurements

### 3.95.36.1 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.

### 3.95.36.2 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.

## 3.95.37 vSTP Server Usage measurements

### 3.95.37.1 VstplTUPDUUtilPeak

**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, 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.

### 3.95.37.2 VstpITUPDUUtilAvg

**Measurement ID**

21151

**Measurement Group**

vSTP Server Resource Usages

**Measurement Type**

Average

**Measurement Dimension**

Single

**Description**

The average SS7 ITUPDU 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, 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.

### 3.95.37.3 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.

### 3.95.37.4 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.

### 3.95.38 vSTP SFAPP Exception measurements

### 3.95.38.1 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.

### 3.95.38.2 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.

### 3.95.38.3 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.

### 3.95.38.4 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.

### 3.95.38.5 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.

### 3.95.38.6 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.

### 3.95.38.7 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.

### 3.95.38.8 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.

## 3.95.39 vSTP SFAPP Performance measurements

### 3.95.39.1 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.

### 3.95.39.2 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.

### 3.95.39.3 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.



### 3.95.39.4 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.

### 3.95.39.5 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.

### 3.95.39.6 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.

### 3.95.39.7 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.

### 3.95.39.8 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.

### 3.95.39.9 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.

### 3.95.39.10 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.

### 3.95.39.11 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.

### 3.95.39.12 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.

### 3.95.39.13 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.

### 3.95.39.14 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.

### 3.95.39.15 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.

### 3.95.39.16 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.

### 3.95.39.17 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.

### 3.95.39.18 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.

### 3.95.39.19 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.

## 3.95.40 vSTP ISUP Performance Measurements

### 3.95.40.1 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.

### 3.95.40.2 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.

### 3.95.40.3 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.

### 3.95.40.4 VstpIsupCAProcessTime

**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.

### 3.95.40.5 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.

### 3.95.40.6 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.

## 3.95.41 vSTP ISUP Exception Measurements

### 3.95.41.1 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.

### 3.95.41.2 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.

### 3.95.41.3 VstpIsupCATimeOut

**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.

### 3.95.41.4 VstpIsupCADecodeFail

**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.

### 3.95.41.5 VstpIsupInternalError

**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.

### 3.95.41.6 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.

### 3.95.41.7 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.

### 3.95.41.8 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.

### 3.95.41.9 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.

### 3.95.42 vSTP MP Performance measurements

### 3.95.42.1 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.

### 3.95.42.2 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.

### 3.95.42.3 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.

### 3.95.42.4 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.

### 3.95.42.5 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.

### 3.95.42.6 VstpRxMpTPSPeak

**Measurement ID**

21587

**Measurement Group**

vSTP MP Performance Measurement

**Measurement Type**

Max

**Measurement Dimension**

Single

**Description**

The peak 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.

### 3.95.42.7 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.

### 3.95.42.8 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.

### 3.95.42.9 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.

## 3.95.43 vSTP SecuLog Performance Measurements

### 3.95.43.1 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.

### 3.95.43.2 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.

### 3.95.43.3 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.

### 3.95.43.4 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.



### 3.95.43.5 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.

## 3.95.44 vSTP SecuLog Exception Measurements

### 3.95.44.1 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.

## 3.95.45 vSTP Accounting Measurements

### 3.95.45.1 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 OpcLnksetAccMeasOption 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.

### 3.95.45.2 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 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.

### 3.95.45.3 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.

### 3.95.45.4 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.

### 3.95.45.5 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.

### 3.95.45.6 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 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.

### 3.95.45.7 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 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.

### 3.95.45.8 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.

### 3.95.45.9 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 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.

### 3.95.45.10 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 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.

### 3.95.45.11 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 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.

### 3.95.45.12 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 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.

### 3.95.45.13 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.

### 3.95.45.14 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.

### 3.95.45.15 VstpRxOpcSccpCgpa

**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.

### 3.95.45.16 VstpTxDpcSccpCgPA

**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.

### 3.95.45.17 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.

### 3.95.45.18 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.

### 3.95.45.19 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.

### 3.95.45.20 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.

### 3.95.45.21 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.

### 3.95.45.22 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.

### 3.95.45.23 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.

### 3.95.45.24 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.

### 3.95.45.25 VstpRxLinksetSI

**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.

### 3.95.45.26 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.

### 3.95.45.27 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.

### 3.95.45.28 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.

### 3.95.45.29 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.

### 3.95.45.30 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.

### 3.95.45.31 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.

### 3.95.45.32 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.

### 3.95.45.33 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.

## 3.95.46 Cluster Routing Measurements

### 3.95.46.1 VstpXListDiscardDueElel

**Measurement ID**

22350

**Measurement Group**

vSTP MTP3 Exception

**Measurement Type**

Single

**Measurement Dimension**

NA

**Description**

The measurement is specific to Cluster Routing feature.

**Collection Interval**

5 min

### 3.95.46.2 VstpXListCreationFailed

**Measurement ID**

22351

**Measurement Group**

vSTP MTP3 Exception

**Measurement Type**

Average

**Measurement Dimension**

NA

**Collection Interval**

5 min

### 3.95.46.3 VstpM3rlXListBufferPeak

**Measurement ID**

22352

**Measurement Group**

vSTP MTP3 Performance

**Measurement Type**

Arrayed Max

**Measurement Dimension**

NA

**Description**

The measurement is specific to Cluster Routing feature.

**Collection Interval**

5 min

### 3.95.46.4 VstpM3rlXListBufferAvg

**Measurement ID**

22353

**Measurement Group**

VstpM3rlXListBufferAvg

**Measurement Type**

Arrayed Avg

**Measurement Dimension**

NA

**Description**

The measurement is specific to Cluster Routing feature.

**Collection Interval**

5 min

### 3.95.46.5 VstpM3rlXListBufferOverflow

**Measurement ID**

22354

**Measurement Group**

vSTP MTP3 Exception

**Measurement Type**

Arrayed Simple

**Measurement Dimension**

NA

**Description**

The measurement is specific to Cluster Routing feature.

**Collection Interval**

5 min

## 3.95.47 vSTP GPORT SRI Measurements

### 3.95.47.1 vstpGportSriRecvPrepaid

**Measurement ID**

022346

**Measurement Group**

vSTP MNP Performance

**Measurement Type**

Single

**Measurement Dimension**

NA

**Description**

Number of call related SRI messages received for prepaid feature.

**Collection Interval**

5 min

### 3.95.47.2 vstpGportSriGttPrepaid

**Measurement ID**

022347

**Measurement Group**

vSTP MNP Performance

**Measurement Type**

Single

**Measurement Dimension**

NA

**Description**

Number of call related SRI messages that fell through to GTT due to no match received for prepaid feature.

**Collection Interval**

5 min

### 3.95.47.3 vstpGportSriReplyPrepaid

**Measurement ID**

022348

**Measurement Group**

vSTP MNP Performance

**Measurement Type**

Single

**Measurement Dimension**

NA

**Description**

Number of call related SRI messages that fell through to GPORT service for prepaid feature.

**Collection Interval**

5 min

### 3.95.47.4 vstpGportSriErrPrepaid

**Measurement ID**

022349

**Measurement Group**

vSTP MNP Performance

**Measurement Type**

Single

**Measurement Dimension**

NA



**Description**

Number of call related messages that caused an error response message (SRI-Send Routing Information NEGATIVE ACK) for prepaid feature.

**Collection Interval**

5 min

## 3.95.48 vSTP Linkset Usage

**Measurement ID**

21260

**Measurement Group**

vSTP Linkset Usage

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed

**Description**

Duration of Linkset Inactivity - 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**

5 min

**Peg Condition**

Each time all links in a link set gets unavailable to M3RL.

**Measurement Scope**

NE, Server

**Recovery**

No action required.

**Note**

The measurement report shows the summed value of each MP under **ALL** column. Hence, the user must consider the maximum of the MP values for **ALL** instead.

## 3.96 MPN vDRA Measurement

This section provides information about Mobile Private Network vDRA (MPN vDRA) measurements.

### 3.96.1 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

## 3.96.2 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

### 3.96.3 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

### 3.96.4 RadiusAllResolvedVrfIdToAAA

**Measurement ID**

14841

**Measurement Group**

DA-MP Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single

**Description**

Number of Radius request messages sent to AAA for Vrfld 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

## 3.96.5 RadiusAllMisMatchedVrfldToAAA

**Measurement ID**

14842

**Measurement Group**

DA-MP Performance

**Measurement Type**

Simple

**Measurement Dimension**

Single

**Description**

Number of Radius request messages sent to AAA for Vrfld 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

## 3.96.6 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

## 3.96.7 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

## 3.96.8 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

## 3.96.9 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

## 3.96.10 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

## 3.96.11 RadiusVrflIdAbsent

**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

## 3.96.12 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

## 3.96.13 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

## 3.96.14 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

## 3.96.15 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

## 3.96.16 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

## 3.96.17 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

## 3.96.18 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

## 3.96.19 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

## 3.97 Interface and Result Code Level Measurement

The Interface Level Connection measurement group contains the following set of measurements that allows the user to determine the number of total, successful and rejected messages forwarded and received to or from DSR over a connection on a diameter interface.

**Note**

- Interface Level Connection measurement group is not visible in the **Measurements** Report of SOAM GUI, hence it cannot be exported.
- The measurement statistics of the measurement pegs present in this group can be collected through MDS feature. For more information, refer to *Oracle Communications Measurement Data Streaming Guide*.
- The measurement statistics of these pegs will not be streamed over Kafka server before the first initial traffic run. After traffic is initiated and indexes are created, measurements will be streamed over Kafka server.

### 3.97.1 RxRequestInterface

**Measurement ID**

14857

**Measurement Group**

Interface Level Connection

**Measurement Type**

Simple

**Measurement Dimension**

Arrayed

**Description**

Number of total request messages that were received by the local node from a downstream peer over a connection on a diameter interface.

**Collection Interval**

5 min

**Peg Condition**

When DRL receives request messages from a downstream peer.

**Measurement Scope**

Site

**Customer Action**

None

## 3.97.2 RxRequestSuccessInterface

**Measurement ID**

14858

**Measurement Group**

Interface Level Connection

**Measurement Dimension**

Arrayed

**Measurement Type**

Simple

**Description**

Number of request messages that were processed by the local node from a downstream peer over a connection on a diameter interface.

**Collection Interval**

5 min

**Peg Condition**

When DRL accepts request messages from a downstream peer and is either ready to perform routing or send an error response or discard or abandon message without answer.

**Merge Scope**

Site

**Customer Action**

None

## 3.97.3 RxRequestFailureInterface

**Measurement ID**

14859

**Measurement Group**

Interface Level Connection

**Measurement Dimension**

Arrayed

**Measurement Type**

Simple

**Description**

Number of request messages that were not processed by the local node from a downstream peer over a connection on a diameter interface.

**Collection Interval**

5 min

**Peg Condition**

When DRL receives a request message which cannot be processed, this peg should be incremented due to internal error like:

- Unable to get the DCL event
- Request data is not initialized properly due to reasons such as connection not available (is NULL), local node or peer node state is not configured.

**Measurement Scope**

Site

**Customer Action**

None



## 3.97.4 TxRequestInterface

**Measurement ID**

14860

**Measurement Group**

Interface Level Connection

**Measurement Dimension**

Arrayed

**Measurement Type**

Simple

**Description**

Number of total request messages attempted by the local node to an upstream peer over a connection on a diameter interface.

**Collection Interval**

5 min

**Peg Condition**

When DRL attempts to send messages to an upstream peer.

**Collection Interval**

5 min

**Measurement Scope**

Site

**Customer Action**

None

## 3.97.5 TxRequestSuccessInterface

**Measurement ID**

14861

**Measurement Group**

Interface Level Connection

**Measurement Dimension**

Arrayed

**Measurement Type**

Simple

**Description**

Number of request messages that were successfully routed by local node to an upstream peer over a connection on a diameter interface.

**Collection Interval**

5 min

**Peg Condition**

When DRL successfully routes request messages to an upstream peer.

**Measurement scope**

Site

**Customer Action**

None

## 3.97.6 TxRequestFailureInterface

**Measurement ID**

14862

**Measurement Group**

Interface Level Connection

**Measurement Dimension**

Arrayed

**Measurement Type**

Simple

**Description**

Number of request messages that were attempted to but not successfully routed by the local node to an upstream peer over a connection on a diameter interface.

**Collection Interval**

5 min

**Peg Condition**

When DRL attempts to, but is unable to forward the request message to the upstream peer.

**Measurement Scope**

Site

**Customer Action**

None

## 3.97.7 RxAnswerInterface

**Measurement ID**

14863

**Measurement Group**

Interface Level Connection

**Measurement Dimension**

Arrayed

**Measurement Type**

Simple

**Description**

Number of total answer messages that were received by the local node from an upstream peer over a connection on a diameter interface.

**Collection Interval**

5 min

**Peg Condition**

When DRL receives a response message from an upstream peer.

**Measurement Scope**

Site

**Customer Action**

None

## 3.97.8 RxAnswerSuccessInterface

**Measurement ID**

14864

**Measurement Group**

Interface Level Connection

**Measurement Dimension**

Arrayed

**Measurement Type**

Simple

**Description**

Number of answer messages that were successfully accepted and processed by the local node from an upstream peer over a connection on a diameter interface.

**Collection Interval**

5 min

**Peg condition**

When DRL successfully receives a response message from an upstream peer that can be routed.

**Customer Action**

None

## 3.97.9 RxAnswerFailureInterface

**Measurement ID**

14865

**Measurement Group**

Interface Level Connection

**Measurement Dimension**

Arrayed

**Measurement Type**

Simple

**Description**

Number of request messages that were attempted to but not successfully routed by the local node to an upstream peer over a connection on a diameter interface.

**Collection Interval**

5 min

**Peg Condition**

When DRL receives response message that cannot be routed to a downstream peer.

**Measurement Scope**

Site

**Customer Action**

None

## 3.97.10 TxAnswerInterface

**Measurement ID**

14866

**Measurement Group**

Interface Level Connection

**Measurement Dimension**

Arrayed

**Measurement Type**

Simple

**Description**

Number of total answer messages that were attempted by the local node to a downstream peer over a connection on a diameter interface.

**Collection Interval**

5 min

**Peg Condition**

When DRL attempts to route a message to the downstream peer that is either received from an upstream peer or created by local node.

**Measurement Scope**

Site

**Customer Action**

None

## 3.97.11 TxAnswerSuccessInterface

**Measurement ID**

14867

**Measurement Group**

Interface Level Connection

**Measurement Dimension**

Arrayed

**Measurement Type**

Simple

**Description**

Number of answer messages that were successfully routed by the local node to a downstream peer over a connection on a diameter interface.

**Collection Interval**

5 min

**Peg Condition**

When DRL routes a message to an downstream peer that is either received from an upstream peer or created by local node.

**Measurement Scope**

Site

**Customer Action**

None

## 3.97.12 TxAnswerFailureInterface

**Measurement ID**

14868

**Measurement Group**

Interface Level Connection

**Measurement Dimension**

Arrayed

**Measurement Type**

Simple

**Description**

Number of answer messages that local node was unable to route to a downstream peer over a connection on a diameter interface.

**Collection Interval**

5 min

**Peg Condition**

When DRL failed to route message to a downstream peer that is either received from an upstream peer or created by local node.

**Measurement Scope**

Site

**Customer Action**

None

### 3.97.13 RxAnswerResultCode

**Measurement ID**

14869

**Measurement Group**

Interface Level Connection

**Measurement Dimension**

Arrayed

**Measurement Type**

Simple

**Description**

Number of total answer messages that were received by the local node from an upstream peer over a connection on a diameter interface with result code.

**Collection Interval**

5 min

**Peg Condition**

When DRL receives a answer message from an upstream peer of any result code.

**Measurement Scope**

Site

**Customer Action**

None

### 3.97.14 TxAnswerResultCode

**Measurement ID**

14870

**Measurement Group**

Interface Level Connection

**Measurement Dimension**

Arrayed

**Measurement Type**

Simple

**Description**

Number of total answer messages that were attempted by the local node to a downstream peer over a connection on a diameter interface with result code.

**Collection Interval**

5 min

**Peg Condition**

When DRL attempts to route a message to the downstream peer that is either received from an upstream peer or created by local node of any result code.

**Measurement Scope**

Site

**Customer Action**

None

## 3.98 Maximum Number Retry within RG

This section provides information about Maximum Number Retry within RG measurements.

### 3.98.1 MaxNumRetryInsameRGExceeded

**Measurement ID**

14486

**Measurement Group**

Diameter Exception

**Measurement Dimension**

Arrayed

**Measurement Type**

Simple

**Description**

Number of times that Max retries exceeded within the Route Group(s) inside the Route List.



**Collection Interval**

5 min

**Peg Condition**

Whenever the max retries limit will be reached within Route Group of the Route List

**Measurement scope**

Site

**Customer Action**

None

# 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 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 PCRF.
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 PCRF 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 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.