

**Oracle® Communications
User Data Repository**

Alarms, KPIs, and Measurements Reference

Release 10.0

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Oracle® Communications Alarms, KPIs, and Measurements Reference, Release 10.0

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Chapter 1

Introduction

Topics:

- *Overview.....10*
- *Scope and Audience.....10*
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The Introduction section explains the purpose and organization of the documentation, defines the document's audience and admonishments, and provides information about technical support, training, and how to location related publications.

Overview

This documentation provides information about the Oracle Communications User Data Repository (UDR) alarms and events, corrective maintenance procedures, and other information used in maintaining the system, including:

- Information relevant to understanding alarms and events that may occur on the application
- Recovery procedures for addressing alarms and events, as necessary
- Procedures for viewing alarms and events, generating alarms reports, and viewing and exporting alarms and events history
- List of alarms
- Information relevant to understanding Key Performance Indicators (KPIs) in the application
- The procedure for viewing KPIs
- List of KPIs
- Information relevant to understanding measurements in the application
- Measurement report elements, and the procedures for printing and exporting measurements
- List of measurements by function

Scope and Audience

This reference guide provides preventive and corrective procedures that aid personnel in maintaining the UDR platform. These procedures are used in response to a system alarm or output message, and are used to aid in the detection, isolation, and repair of faults.

Manual Organization





Information in this document is organized into the following sections:

- *Introduction* contains general information about this documentation, including how to contact *My Oracle Support (MOS)*, and how to *Locate Product Documentation on the Oracle Technology Network Site*.
- *Alarms and Events* provides information and recovery procedures for alarms and events, organized first by alarm category, then numerically by the number that appears in the application.
- *Key Performance Indicators (KPIs)* provides detailed KPI information, organized by KPI type, then alphabetically by KPI name.
- *Measurements* provides detailed measurement information, organized alphabetically by measurement category.

Documentation Admonishments

Admonishments are icons and text throughout this manual that alert the reader to assure personal safety, to minimize possible service interruptions, and to warn of the potential for equipment damage.

Table 1: Admonishments

Icon	Description
 DANGER	Danger: (This icon and text indicate the possibility of <i>personal injury</i> .)
 WARNING	Warning: (This icon and text indicate the possibility of <i>equipment damage</i> .)
 CAUTION	Caution: (This icon and text indicate the possibility of <i>service interruption</i> .)
 TOPPLE	Topple: (This icon and text indicate the possibility of <i>personal injury and equipment damage</i> .)

Related Publications

For information about additional publications that are related to this document, refer to the *Related Publications Reference* document, which is published as a separate document on the Oracle Technology Network (OTN) site. See [Locate Product Documentation on the Oracle Technology Network Site](#) for more information.

Locate Product Documentation on the Oracle Technology Network Site

Oracle customer documentation is available on the web at the Oracle Technology Network (OTN) site, <http://docs.oracle.com>. You do not have to register to access these documents. Viewing these files requires Adobe Acrobat Reader, which can be downloaded at www.adobe.com.

1. Log into the Oracle Technology Network site at <http://docs.oracle.com>.
2. Under **Applications**, click the link for **Communications**.
The **Oracle Communications Documentation** window opens with Tekelec shown near the top.

3. Click **Oracle Communications Documentation for Tekelec Products**.
4. Navigate to your Product and then the Release Number, and click the **View** link (the **Download** link will retrieve the entire documentation set).
5. To download a file to your location, right-click the PDF link and select **Save Target As**.

Customer Training

Oracle University offers training for service providers and enterprises. Visit our web site to view, and register for, Oracle Communications training:

<http://education.oracle.com/communication>

To obtain contact phone numbers for countries or regions, visit the Oracle University Education web site:

www.oracle.com/education/contacts

My Oracle Support (MOS)

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

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

1. Select **2** for New Service Request
2. Select **3** for Hardware, Networking and Solaris Operating System Support
3. Select **2** for Non-technical issue

You will be connected to a live agent who can assist you with MOS registration and provide Support Identifiers. Simply mention you are a Tekelec Customer new to MOS.

MOS is available 24 hours a day, 7 days a week, 365 days a year.

Emergency Response

In the event of a critical service situation, emergency response is offered by the Customer Access Support (CAS) main number at **1-800-223-1711** (toll-free in the US), or by calling the Oracle Support hotline for your local country from the list at <http://www.oracle.com/us/support/contact/index.html>. The emergency response provides immediate coverage, automatic escalation, and other features to ensure that the critical situation is resolved as rapidly as possible.

A critical situation is defined as a problem with the installed equipment that severely affects service, traffic, or maintenance capabilities, and requires immediate corrective action. Critical situations affect service and/or system operation resulting in one or several of these situations:

- A total system failure that results in loss of all transaction processing capability
- Significant reduction in system capacity or traffic handling capability
- Loss of the system's ability to perform automatic system reconfiguration
- Inability to restart a processor or the system
- Corruption of system databases that requires service affecting corrective actions
- Loss of access for maintenance or recovery operations
- Loss of the system ability to provide any required critical or major trouble notification

Any other problem severely affecting service, capacity/traffic, billing, and maintenance capabilities may be defined as critical by prior discussion and agreement with Oracle.

Chapter 2

User Interface Introduction

Topics:

- *User interface organization.....15*
- *Common Graphical User Interface Widgets.....17*

This section describes the organization and usage of the application user interface. In it you can find information about how the interface options are organized, how to use widgets and buttons, and how filtering and other page display options work.

User interface organization

The user interface is the central point of user interaction with the application. It is a Web-based graphical user interface (GUI) that enables remote user access over the network to the application and its functions.

User Interface Elements

Table 2: User interface elements describes elements of the user interface.

Table 2: User interface elements

Element	Location	Function
Identification Banner	Top bar across the web page	Displays the company name, product name and version, and the alarm panel.
Session Banner	Next bar across the top of the web page	<p>The left side of the banner just above the Main Menu provides the following session information:</p> <ul style="list-style-type: none"> • The name of the machine to which the user is connected, and whether the user is connected via the VIP or directly to the machine. • The HA state of the machine to which the user is connected. • The role of the machine to which the user is connected. <p>The right side of the banner:</p> <ul style="list-style-type: none"> • Shows the user name of the currently logged-in user. • Provides a link to log out of the GUI.
Main Menu	Left side of screen, under banners	<p>A tree-structured menu of all operations that can be performed through the user interface. The plus character (+) indicates that a menu item contains subfolders.</p> <ul style="list-style-type: none"> • To display submenu items, click the plus character, the folder, or anywhere on the same line. • To select a menu item that does not have submenu items, click on the menu item text or its associated symbol.
Work Area	Right side of panel under status	<p>Consists of three sections: Page Title Area, Page Control Area (optional), and Page Area.</p> <ul style="list-style-type: none"> • Page Title Area: Occupies the top of the work area. It displays the title of the current page being

Element	Location	Function
		<p>displayed, the date and time, and includes a link to context-sensitive help.</p> <ul style="list-style-type: none"> • Page Control Area: Is located below the Page Title Area, and is used to show controls for the Page Area (this area is optional). When available for an option, filter controls display in this area. The Page Control Area contains the optional layout element toolbar, which displays different elements depending on which GUI page is selected. For more information, see Optional Layout Element Toolbar. • Page Area: Occupies the bottom of the work area. This area is used for all types of operations. It displays all options, status, data, file, and query screens. Information or error messages are displayed in a message box at the top of this section. A horizontal and/or vertical scroll bar is provided when the displayed information exceeds the page area of the screen. When a user first logs in, this area displays the application user interface page. The page displays a user-defined welcome message. To customize the message, see Customizing the Splash Page Welcome Message.

Main menu options

This table describes all main menu user interface options. Note that user documentation for the **Administration, Configuration, Alarms & Events, Security Log, Status & Manage, and Measurements** menu options is available in the *Operations, Administration, and Maintenance (OAM)* section of the documentation.

Note: The menu options that appear can differ according to the permissions assigned to a user's log-in account, as well as to the type of server the user is logged into. For example, the **Administration** menu options would not appear on the screen of a user who does not have administrative privileges. Similarly, when the user is accessing the GUI from a Network Operations, Administration, and Provisioning (NOAMP) server, the **Diameter** menu option does not appear.

Table 3: Main Menu Options

Menu Item	Function
Administration	<p>The Administration menu allows you to:</p> <ul style="list-style-type: none"> • Set up and manage user accounts • Prepare, initiate, monitor, and complete upgrades • View the software versions report • Configure group permissions

Menu Item	Function
	<ul style="list-style-type: none"> • View session information • Authorize IP addresses to access the user interface • Configure options including, but not limited to, password history and expiration, login message, welcome message, and the number of failed login attempts before an account is disabled • Configure SNMP services • Configure Export Servers • Configure Domain Name Services
Configuration	Provides access to configuring network elements, servers, server groups, and systems.
Alarms & Events	Lists active alarms and alarm history.
Security Log	Allows you to view and export security log data.
Status & Manage	Allows you to monitor the statuses of server processes, both collectively and individually, as well as perform actions required for server maintenance. Also allows you to view the status of file management systems, and to manage data files on servers throughout the system.
Measurements	Allows you to view, modify, import, and export measurement data.
Communication Agent	Provides infrastructure features and services for enabling inter-server communication.
Diameter Common	Allows you to configure network identifiers and MP profiles, and export and import configuration data.
Diameter	Allows you to configure topology hiding and import and export diameter interface settings.
UDR	Allows you to configure options for the UDR, URDBE, and subscriber entities. Allows you to perform maintenance on subscriber queries, connections, the command log and to view the import, export, and subscribing client status.

Common Graphical User Interface Widgets

Common controls allow you to easily navigate through the system. The location of the controls remains static for all pages that use the controls. For example, after you become familiar with the location of

the display filter, you no longer need to search for the control on subsequent pages because the location is static.

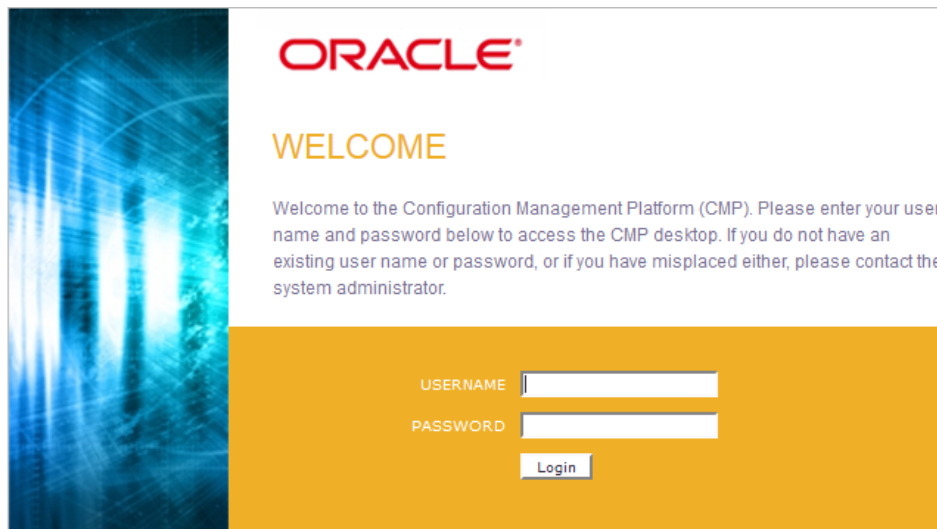
System Login Page

Access to the user interface begins at the System Login page. The System Login page allows users to log in with a username and password and provides the option of changing a password upon login. The System Login page also features a current date and time stamp and a customizable login message.

The user interface is accessed via HTTPS, a secure form of the HTTP protocol. When accessing a server for the first time, HTTPS examines a web certificate to verify the identity of the server. The configuration of the user interface uses a self-signed web certificate to verify the identity of the server. When the server is first accessed, the supported browser warns the user that the server is using a self-signed certificate. The browser requests confirmation that the server can be trusted. The user is required to confirm the browser request.

Customizing the Login Message

Prior to logging in, the **System Login** page appears. You can create a login message that will appear just below the **Log In** button on the **System Login** page.



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Figure 1: Oracle System Login

1. From the **Main Menu**, select **Administration > General Options**.

The **General Options Administration** page appears.

2. Locate **LoginMessage** in the **Variable** column.
3. Enter the login message text in the **Value** column.
4. Click **OK** or **Apply** to submit the information.

A status message appears at the top of the Configuration Administration page to inform you if the operation was successful.

The next time you log in to the user interface, the login message text is displayed.










Supported Browsers


This application supports the use of Microsoft® Internet Explorer 8.0 or 9.0.

Main Menu Icons

This table describes the icons used in the **Main Menu**.

Table 4: Main Menu icons

Icon	Name	Description
	Folder	Contains a group of operations. If the folder is expanded by clicking the plus (+) sign, all available operations and sub-folders are displayed. Clicking the minus (-) will collapse the folder.
	Config File	Contains operations in an Options page.
	File with Magnifying Glass	Contains operations in a Status View page.
	File	Contains operations in a Data View page.
	Multiple Files	Contains operations in a File View page.
	File with Question Mark	Contains operations in a Query page.
	User	Contains operations related to users.
	Group	Contains operations related to groups.
	Help	Launches the Online Help.

Icon	Name	Description
	Logout	Logs the user out of the user interface.

Work Area Displays

In the user interface, you will see a variety of page formats. Tables, forms, tabbed pages, and reports are the most common formats in the user interface.

Note: Screenshots are provided for reference only and may not exactly match a specific application's GUI.

Tables

Paginated tables describe the total number of records being displayed at the beginning and end of the table. They provide optional pagination, with **First | Prev | Next | Last** links at both the beginning and end of this table type. Paginated tables also contain action links on the beginning and end of each row. For more information on action links and other page controls, see [Page Controls](#).

Displaying Records 1-1 of 1 | [First](#) | [Prev](#) | [Next](#) | [Last](#)

Action	System ID	IP Address	Permission	Action
Edit Delete	lisa	10.25.62.4	READ_WRITE	Edit Delete

Displaying Records 1-1 of 1 | [First](#) | [Prev](#) | [Next](#) | [Last](#)

Figure 2: Paginated table

Scrollable tables display all of the records on a single page. The scroll bar, located on the right side of the table, allows you to view all records in the table. Scrollable tables also provide action buttons that operate on selected rows. For more information on buttons and other page controls, see [Page Controls](#).

Sequence #	Alarm ID	Timestamp	Severity	Product	Process	NE	Server	Type	Instance	Alarm Text
3498	31201	2009-Jun-11 18:07:41.214 UTC	MAJOR	MiddleWare	procmgr	OAMPNE	teks8011006	PROC	eclipseHelp	A managed process cannot be started or has unexpectedly terminated
5445	31201	2009-Jun-11 18:07:27.137 UTC	MAJOR	MiddleWare	procmgr	SOAMP	teks8011002	PROC	eclipseHelp	A managed process cannot be started or has unexpectedly terminated
5443	31107	2009-Jun-11 18:07:24.704 UTC	MINOR	MiddleWare	inetmerge	SOAMP	teks8011002	COLL	teks8011004	DB merging from a child Source Node has failed
5444	31107	2009-Jun-11 18:07:24.704 UTC	MINOR	MiddleWare	inetmerge	SOAMP	teks8011002	COLL	teks8011003	DB merging from a child Source Node has failed
5441	31209	2009-Jun-11 18:07:22.640 UTC	MINOR	MiddleWare	re.portmap	SOAMP	teks8011002	SW	teks8011003	Unable to resolve a hostname specified in the NodeInfo table.
										Unable to resolve a hostname specified in the NodeInfo table.

[Export](#)

Figure 3: Scrollable table

Note: Multiple rows can be selected in a scrollable table. Add rows one at a time using CTRL-click. Add a span of rows using SHIFT-click.

Forms

Forms are pages on which data can be entered. Forms are typically used for configuration. Forms contain fields and may also contain a combination of pulldown lists, buttons and links.

Username: (5-16 characters)

Group: ▼

Time Zone: ▼

Maximum Concurrent Logins: Maximum concurrent logins for a user (0=no limit).
[Default = 1; Range = 0-50]

Session Inactivity Limit: Time (in minutes) after which login sessions expire (0 = never).
[Default = 120; Range = 0-120]

Comment: (max 64 characters)

Temporary Password: (8-16 characters)

Re-type Password: (8-16 characters)

Figure 4: Form page

Tabbed pages

Tabbed pages provide collections of data in selectable tabs. Click on a tab to see the relevant data on that tab. Tabbed pages also group Retrieve, Add, Update, and Delete options on one page. Click on the relevant tab for the task you want to perform and the appropriate fields will populate on the page. Retrieve is always the default for tabbed pages.

Entire Network	*	System.CPU_CoreUtilPct_Average		System.CPU_CoreUtilPct_Peak		
NOAMP						
SOAM						
	Timestamp	System CPU UtilPct Average	System CPU UtilPct Peak	System Disk UtilPct Average	System Disk UtilPct Peak	System RAM UtilPct Average
	10/22/2009 19:45	6.764068	44	0.520000	1	7.939407
	10/22/2009 20:00	7.143644	25	0.520000	1	8.523822

Figure 5: Tabbed pages

Retrieve Add Update Delete

Fields marked with a red asterisk (*) require a value.

Field	Value	Description
Network Entity	<input type="text"/>	* Numeric identifier for the Network Entity 1-15 DIGITS

Retrieve

Figure 6: Tabbed pages

Reports

Reports provide a formatted display of information. Reports are generated from data tables by clicking the **Report** button. Reports can be viewed directly on the user interface, or they can be printed. Reports can also be saved to a text file.

```

=====
User Account Usage Report
=====
Report Generated: Fri Jun 19 19:30:55 2009 UTC
From: Unknown Network OAM&P on host teks5001701
Report Version: 1.0
User: guiadmin
-----
Username      Date of Last Login  Days Since Last Login  Account Status
-----
guiadmin      2009-06-19 19:00:17  0                       enabled
-----
End of User Account Usage Report
=====

```

Figure 7: Report output

Customizing the Splash Page Welcome Message

When you first log in to the user interface, the **User Interface** splash page appears. You can display a customized welcome message on the **User Interface** splash page. Use this procedure to customize the message.

1. From the **Main Menu**, select **Administration > General Options**.
The **General Options Administration** page appears.
2. Locate **WelcomeMessage** in the **Variable** column.

3. Enter the welcome message text in the **Value** column.
4. Click **Update OK** or **Apply** to submit the information.

A status message appears at the top of the Configuration Administration page to inform you if the operation was successful.

The next time you log in to the user interface, the welcome message text is displayed.

Column headers (sorting)

Some column headers are links that, when clicked, sort the table by that column. Sorting does not affect filtering. Column headers that are black and group column headers are not sortable.



Figure 8: Sortable and Non-sortable Column Headers

Page Controls

User interface pages contain controls, such as buttons and links, that perform specified functions. The functions are described by the text of the links and buttons.

Note: Disabled buttons are grayed out. Buttons that are irrelevant to the selection or current system state, or which represent unauthorized actions as defined in **Group Administration**, are disabled. For example, **Delete** is disabled for users without Global Data Delete permission. Buttons are also disabled if, for example, multiple servers are selected for an action that can only be performed on a single server at a time.

[Table 5: Example Action buttons](#) contains examples of Action buttons.

Table 5: Example Action buttons

Action button	Function
Insert	Insert data into a table
Edit	Edit data within a table
Delete	Delete data from table
Change	Change the status of a managed object

Some Action buttons take you to another page.

Submit buttons, described in [Table 6: Submit buttons](#), are used to submit information to the server. The buttons are located in the page area and accompanied by a table in which you can enter information.

The submit buttons, except for **Cancel**, are disabled until you enter some data or select a value for all mandatory fields.

Table 6: Submit buttons

Submit button	Function
OK	Submits the information to the server, and if successful, returns to the View page for that table.
Apply	Submits the information to the server, and if successful, remains on the current page so that you can enter additional data.
Cancel	Returns to the View page for the table without submitting any information to the server.

Optional Layout Element Toolbar

The optional layout element toolbar appears in the Page Control Area of the GUI.

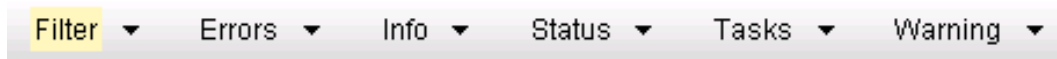


Figure 9: Optional Layout Element Toolbar

The toolbar displays different elements depending on which GUI page is selected. The elements of the toolbar that can appear include:

- Filter - Allows you to filter data in a table.
- Errors - Displays errors associated with the work area.
- Info - Displays information messages associated with the work area.
- Status - Displays short status updates associated with the main work area.
- Warning - Displays warnings associated with the work area.

Notifications

Some messages require immediate attention, such as errors and status items. When new errors occur, the Errors element opens automatically with information about the error. Similarly, when new status items are added, the Status element opens. If you close an automatically opened element, the element stays closed until a new, unacknowledged item is added.

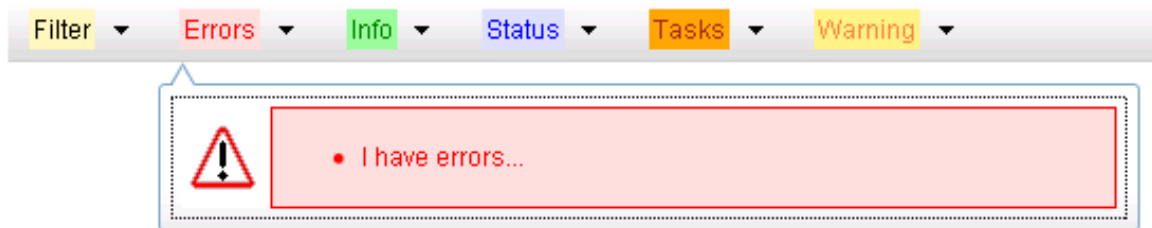


Figure 10: Automatic Error Notification

Note: Viewing and closing an error does not clear the Errors element. If you reopen the Errors element, previously viewed errors are still in the list.

When new messages are added to Warning or Info, the styling of the element changes to indicate new messages are available. The styling of the Task element changes when a task changes state (such as, a task begins or ends).

Opening an Element in the Toolbar

Use this procedure to open an element in the optional layout element toolbar.

1. Click the text of the element or the triangle icon to open an element.
The selected element opens and overlays the work area.
2. Click X to close the element display.

Filters

Filters are part of the optional layout element toolbar and appear throughout the GUI in the Page Control Area. For more information about optional layout element toolbar functionality, see [Optional Layout Element Toolbar](#).

Filters allow you to limit the data presented in a table and can specify multiple filter criteria. By default, table rows appear unfiltered. Three types of filters are supported, however, not all filtering options are available on every page. The types of filters supported include:

- Network Element - When enabled, the Network Element filter limits the data viewed to a single Network Element.
Note: Once enabled, the Network Element filter will affect all pages that list or display data relating to the Network Element.
- Collection Interval - When enabled, the collection interval filter limits the data to entries collected in a specified time range.
- Display Filter - The display filter limits the data viewed to data matching the specified criteria.

Once a field is selected, it cannot be selected again. All specified criteria must be met in order for a row to be displayed.

The style or format of filters may vary depending on which GUI pages the filters are displayed. Regardless of appearance, filters of the same type function the same.



Figure 11: Examples of Filter Styles

Filter Control Elements

This table describes filter control elements of the user interface.

Table 7: Filter control elements

Operator	Description
=	Displays an exact match.
!=	Displays all records that do not match the specified filter parameter value.
>	Displays all records with a parameter value that is greater than the specified value.
>=	Displays all records with a parameter value that is greater than or equal to the specified value.
<	Displays all records with a parameter value that is less than the specified value.
<=	Displays all records with a parameter value that is less than or equal to the specified value.
Like	Enables you to use an asterisk (*) as a wildcard as part of the filter parameter value.
Is Null	Displays all records that have a value of Is Null in the specified field.

Note: Not all filterable fields support all operators. Only the supported operators will be available for you to select.

Filtering on the Network Element

The global Network Element filter is a special filter that is enabled on a per-user basis. The global Network Element filter allows a user to limit the data viewed to a single Network Element. Once enabled, the global Network Element filter affects all sub-screens that display data related to Network Elements. This filtering option may not be available on all pages.

1. Click **Filter** in the optional layout element toolbar.
The filter tool appears.
2. Select a Network Element from the **Network Element** pulldown menu.
3. Click **Go** to filter on the selection, or click **Reset** to clear the selection.

Records are displayed according to the specified criteria.

Filtering on Collection Interval

The Collection Interval filter allows a user to limit the data viewed to a specified time interval. This filtering option may not be available on all pages.

1. Click **Filter** in the optional layout element toolbar.
The filter tool appears.
2. Enter a duration for the **Collection Interval** filter.
The duration must be a numeric value.
3. Select a unit of time from the pulldown menu.

The unit of time can be seconds, minutes, hours, or days.

4. Select **Beginning** or **Ending** from the pulldown menu.
5. Click **Go** to filter on the selection, or click **Reset** to clear the selection.

Records are displayed according to the specified criteria.

Filtering using the Display Filter

Use this procedure to perform a filtering operation. This procedure assumes that you have a data table displayed on your screen. This process is the same for all data tables. However, all filtering operations are not available for all tables.

1. Click **Filter** in the optional layout element toolbar.
The filter tool appears.
2. Select a field name from the **Display Filter** pulldown menu.
This selection specifies the field in the table that you want to filter on. The default is **None**, which indicates that you want all available data displayed.
The selected field name displays in the **Display Filter** field.
3. Select an operator from the operation selector pulldown menu.
The selected operator appears in the field.
4. Enter a value in the value field.
This value specifies the data that you want to filter on. For example, if you specify Filter=Severity with the equals (=) operator and a value of MINOR, the table would show only records where Severity=MINOR.
5. Click **Go** to filter on the selection, or click **Reset** to clear the selection.

Records are displayed according to the specified criteria.

Auto refresh controls

Auto refresh controls are widgets that control the rate at which the Page Area refreshes on some pages. They are located in the Page Control Area on the right side. Auto refresh can be set to 15 seconds or 30 seconds, and it can be turned off. The changes take effect immediately.

Click one of the Auto Refresh options to set the auto refresh rate. Click the **Off** option to terminate automatic refreshing of the page.

Auto Refresh : 15 | 30 | Off

Pause Updates

Some pages refresh automatically. Updates to these pages can be paused by selecting the **Pause updates** checkbox. Uncheck the **Pause updates** checkbox to resume automatic updates. The **Pause updates** checkbox is available only on some pages.

Max Records Per Page Controls

Max Records Per Page is used to control the maximum number of records displayed in the page area. If a page uses pagination, the value of Max Records Per Page is used. Use this procedure to change the Max Records Per Page.

1. From the **Main Menu**, select **Administration > General Options**.

The **General Options Administration** page appears.

2. Change the value of the **MaxRecordsPerPage** variable.

Note: **MaxRecordsPerPage** has a range of values from 10 to 100 records. The default value is 20.

3. Click **OK** or **Apply**.

OK saves the change and returns to the previous page.

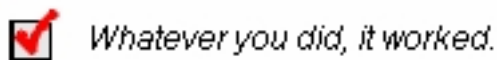
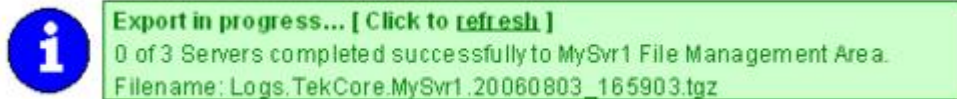
Apply saves the change and remains on the same page.

The maximum number of records displayed is changed.

Message display

A message appears at the top of the Work Area on a page when a process needs to communicate errors or information. When an event is in progress, a refresh link may be provided here so that you can refresh without having to use the browser's refresh function

These are examples of some of the messages that can appear in a Work Area:



Chapter 3

Alarms and Events

Topics:

- [General alarms and events information.....30](#)
- [List of alarms.....50](#)

This section provides general alarm/event information, and lists the types of alarms and events that can occur on the system. Alarms and events are recorded in a database log table. Currently active alarms can be viewed from the Launch Alarms Dashboard GUI menu option. The alarms and events log can be viewed from the View History GUI menu option.

Note: Some of the alarms in the following Operations, Administration, and Maintenance (OAM) and Platform Alarms sections are shared with other applications and may not appear in the UDR.

General alarms and events information

This section provides general information about alarms and events, including an alarms overview, types of alarms/events, and alarms-related procedures.

Alarms and events overview

Alarms provide information pertaining to a system's operational condition that a network manager may need to act upon. An alarm might represent a change in an external condition, for example, a communications link has changed from connected to disconnected state. Alarms can have these severities:

- Critical application error
- Major application error
- Minor application error
- Cleared

An alarm is considered inactive once it has been cleared and cleared alarms are logged on the **Alarms & Events > View History** page of the GUI.

Events note the occurrence of a transient condition. Events have a severity of Info and are logged on the **View History** page.

Note: Some events may be throttled because the frequently generated events can overload the MP or OAM server's system or event history log (e.g., generating an event for every ingress message failure). By specifying a throttle interval (in seconds), the events will appear no more frequently than once during the interval duration period (e.g., if the throttle interval is 5-seconds, the event will be logged no frequently than once every 5-seconds).

The following figure shows how Alarms and Events are organized in the application.

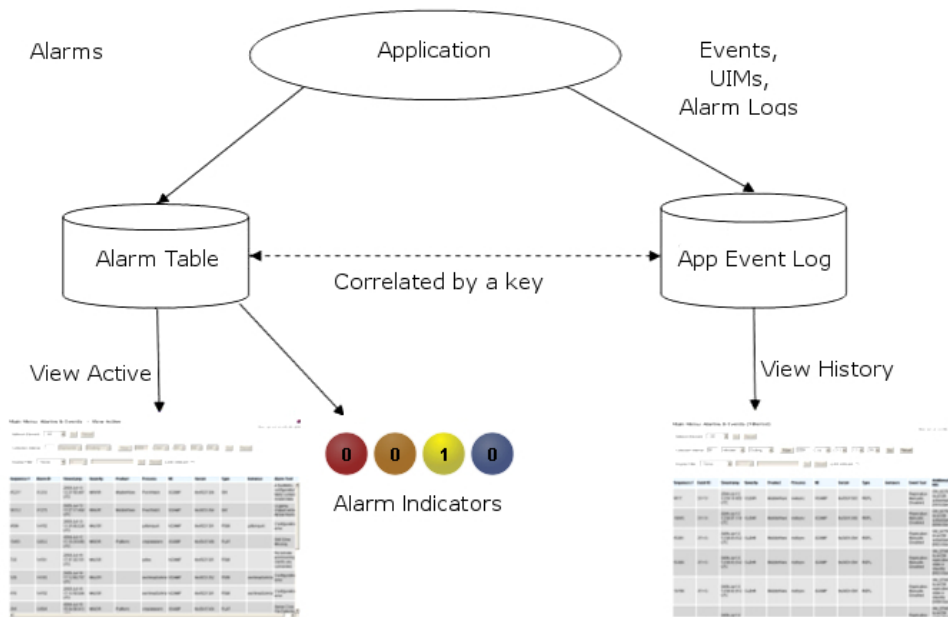


Figure 12: Flow of Alarms

Alarms and events are recorded in a database log table. Application event logging provides an efficient way to record event instance information in a manageable form, and is used to:

- Record events that represent alarmed conditions
- Record events for later browsing
- Implement an event interface for generating SNMP traps

Alarm indicators, located in the User Interface banner, indicate all critical, major, and minor active alarms. A number and an alarm indicator combined represent the number of active alarms at a specific level of severity. For example, if you see the number six in the orange-colored alarm indicator, that means there are six major active alarms.

	Active Critical Alarm (bright red)
	Active Major Alarm (bright orange)
	Active Minor Alarm (bright yellow)
	No active Critical Alarm (pale red)
	No active Major Alarm (pale orange)
	No active Minor Alarm (pale yellow)
	Not Connected (white)

Figure 13: Alarm Indicators Legend



	Trap count > 0 (bright blue)
	Trap count = 0 (pale blue)

Figure 14: Trap Count Indicator Legend

Alarms formatting information

This section of the document provides information to help you understand why an alarm occurred and a recovery procedure to help correct the condition that caused the alarm.

The information provided about each alarm may include:

- Alarm Type: the type of alarm that has occurred. For a list of alarm types see [Table 9: Alarm and Event Types](#).
- Description: describes the reason for the alarm
- Severity: the severity of the alarm
- Instance: where the alarm occurred, for example, GUI, <process name>, IP address, <server name>
Note: The value in the Instance field can vary, depending on the process generating the alarm.
- HA Score: high availability score; determines if switchover is necessary
- Auto Clear Seconds: the number of seconds that have to pass before the alarm will clear itself
- OID: alarm identifier that appears in SNMP traps
- Recovery: provides any necessary steps for correcting or preventing the alarm

Alarm and event ID ranges

The AlarmID listed for each alarm falls into one of the following process classifications:

Table 8: Alarm/Event ID Ranges

Application/Process Name	Alarm ID Range
OAM	10000-10999
IDIH	11500-11549
Provisioning (RAS, XSAS, and Prov-Misc)	13000-13100
UDR	13101-13500
ComAgent	19800-19899
EXG Stack	19900-19999
Diameter	22000-22999
CAPM	25000-25499
OAM Alarm Management	25500-25899
Platform	31000-32700

Alarm and event types

This table describes the possible alarm/event types that can be displayed.

Note: Not all applications use all of the alarm types listed.

Table 9: Alarm and Event Types

Type Name	Type
AUD	Audit
CAF	Communication Agent (ComAgent)
CAPM	Computer-Aided Policy Making (Diameter Mediation)
CFG	Configuration
COLL	Collection
DB	Database
DIAM	Diameter
DISK	Disk
HA	High Availability
IF	Interface
IP	Internet Protocol
IPFE	IP Front End
LOG	Logging
MEAS	Measurements
MEM	Memory
OAM	Operations, Administration & Maintenance
PDRA	Policy DRA
PLAT	Platform
PROC	Process
PROV	Provisioning
NAT	Network Address Translation
RBAR	Range-Based Address Resolution
REPL	Replication
SCTP	Stream Control Transmission Protocol
SL	Selective Logging
SPR	Subscriber Profile Repository

Type Name	Type
STK	EXG Stack
SW	Software (generic event type)
UDR	User Data Request
UDRFE	UDR Front End Application running on MP Server

Viewing active alarms

Active alarms are displayed in a scrollable, optionally filterable table. By default, the active alarms are sorted by time stamp with the most recent alarm at the top.

Use this procedure to view active alarms.

Note: The alarms and events that appear in **View Active** vary depending on whether you are logged in to an NOAMP or SOAM. Alarm collection is handled solely by NOAMP servers in systems that do not support SOAMs.

1. Select **Alarms & Events > View Active**.

The **View Active** page appears.

2. If necessary, specify filter criteria and click **Go**.

The active alarms are displayed according to the specified criteria.

The active alarms table updates automatically. When new alarms are generated, the table is automatically updated, and the view returns to the top row of the table.

3. To suspend automatic updates, click any row in the table.

The following message appears: (Alarm updates are suspended.)

If a new alarm is generated while automatic updates are suspended, a new message appears: (Alarm updates are suspended. Available updates pending.)

To resume automatic updates, press and hold **Ctrl** as you click to deselect the selected row.

Active alarms data export elements

This table describes the elements on the **View Active Export** alarms page.

Table 10: Schedule Active Alarm Data Export Elements

Element	Description	Data Input Notes
Task Name	Name of the scheduled task	Format: Textbox 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.

Element	Description	Data Input Notes
Description	Description of the scheduled task	Format: Textbox 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	Frequency at which the export occurs	Format: Radio button Range: Once, Fifteen Minutes, Hourly, Daily, or Weekly Default: Once
Minute	If hourly or fifteen minutes is selected for Upload Frequency, this is the minute of each hour when the data will be written to the export directory.	Format: Scrolling list Range: 0 to 59 Default: 0
Time of Day	Time of day the export occurs	Format: Time textbox Range: 15-minute increments Default: 12:00 AM
Day of Week	Day of week on which the export occurs	Format: Radio button Range: Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, or Saturday Default: Sunday

Exporting active alarms

You can schedule periodic exports of alarm data from the **Alarms and Events View Active** page. Active alarm data can be exported immediately, or you can schedule exports to occur daily or weekly. If filtering has been applied in the **View Active** 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](#).

Alarm details can be exported to a file by clicking the **Export** button on the **View Active** page. The system automatically creates and writes the exported active alarm details to a CSV file in the file management area.

If filtering has been applied in the **View Active** page, only filtered, active alarms are exported.

Use this procedure to export active alarms to a file. Use this procedure to schedule a data export task.

1. Select **Alarms & Events > View Active**.

The **View Active** page appears.

2. If necessary, specify filter criteria and click **Go**.
The active alarms are displayed according to the specified criteria.
3. Click **Export**.
The **Schedule Active Alarm Data Export** page appears.
4. Enter the **Task Name**.
For more information about **Task Name**, or any field on this page, see [Active alarms data export elements](#).
5. Select the **Export Frequency**.
6. Select the **Time of Day**.
Note: **Time of Day** is not an option if **Export Frequency** equals **Once**.
7. Select the **Day of Week**.
Note: **Day of Week** is not an option if **Export Frequency** equals **Once**.
8. Click **OK** or **Apply** to initiate the active alarms export task.

From the **Status & Manage > Files** page, you can view a list of files available for download, including the file you exported during this procedure. For more information, see [Displaying the file list](#).

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

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

9. Click **Export**.
The file is exported.
10. Click the link in the green message box to go directly to the **Status & Manage > Files** page.



• The active alarms are now available in Alarms_20090812_180627.csv.

From the **Status & Manage > Files** page, you can view a list of files available for download, including the active alarms file you exported during this procedure. For more information, see [Opening a file](#).

Data Export

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

- [Exporting active alarms](#)
- [Exporting alarm and event history](#)
- [Exporting security log files](#)
- [Exporting KPIs](#)
- [Exporting measurements reports](#)

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

Data Export elements

This table describes the elements on the Data Export page.

Table 11: Data Export Elements

Element	Description	Data Input Notes
Hostname	Name of export server.	<p>Must be a valid hostname, IPv4 address, or IPv6 address.</p> <p>Range: Maximum length is 255 characters; alphanumeric characters (a-z, A-Z, and 0-9) and minus sign. Hostname must start and end with an alphanumeric.</p> <p>To clear the current export server and remove the file transfer task, specify an empty hostname and username.</p> <p>Default: None</p>
Username	Username used to access the export server	<p>Format: Textbox</p> <p>Range: Maximum length is 32 characters; alphanumeric characters (a-z, A-Z, and 0-9).</p> <p>To clear the current export server and remove the file transfer task, specify an empty hostname and username.</p> <p>Default: None</p>
Directory on Export Server	Directory path on the export server where the exported data files are to be transferred	<p>Format: Textbox</p> <p>Range: Maximum length is 255 characters; valid value is any UNIX string.</p> <p>Default: None</p>
Path to rsync on Export Server	Optional path to the rsync binary on the export server	<p>Format: Textbox</p> <p>Range: Maximum length is 4096 characters; alphanumeric characters (a-z, A-Z, and 0-9), dash, underscore, period, and forward slash.</p>

Element	Description	Data Input Notes
		Default: If no path is specified, the username's home directory on the export server is used
Backup File Copy Enabled	Enables or disables the transfer of the backup files.	Format: Checkbox Default: Disabled (unchecked)
File Compression	Compression algorithm used when exported data files are initially created on the local host.	Format: Radio button Range: gzip, bzip2, or none Default: gzip
Upload Frequency	Frequency at which the export occurs	Format: Radio button Range: fifteen minutes, hourly, daily or weekly Default: weekly
Minute	If The Upload Frequency is Hourly, this is the minute of each hour when the transfer is set to begin	Format: Scrolling list Range: 0 to 59 Default: zero
Time of Day	If the Upload Frequency is Daily of Weekly, this is the time of day the export occurs	Format: Time textbox Range: HH:MM AM/PM in 15-minute increments Default: 12:00 AM
Day of Week	If Upload Frequency is Weekly, this is the day of the week when exported data files will be transferred to the export server	Format: Radio button Range: Sunday through Saturday Default: Sunday
SSH Key Exchange	This button launches a dialog box. The dialog requests username and password and initiates SSH key exchange.	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

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 > Remote Servers > Data Export**.
The Data Export page appears.

2. Enter a **Hostname**.
See the Data Export elements for details about the **Hostname** field and other fields that appear on this page.
3. Enter a **Username**.
4. Enter a **Directory Path** on the Export server.
5. Enter the **Path to Rsync** on the Export server.
6. Select whether to enable the transfer of the backup file. To leave the backup disabled, do not check the box.
7. Select the **File Compression** type.
8. Select the **Upload Frequency**.
9. If you selected hourly for the upload frequency, select the **Minute** intervals.
10. If you selected daily or weekly for the upload frequency, select the **Time of Day**.
11. If you selected weekly for the upload frequency, select the **Day of the Week**.
12. Click **Exchange SSH Key** to transfer the SSH keys to the export server.
A password dialog box appears.
13. Enter the password.
The server will attempt to exchange keys with the specified export server. After the SSH keys are successfully exchanged, continue with the next step.
14. Click **OK** or **Apply**.
The export server is now configured and available to receive performance and configuration data.

Exporting security log files

You can schedule periodic exports of security log data from the **Security Log View History** page. Security log data can be exported immediately, or you can schedule exports to occur daily or weekly. If filtering has been applied in the **View History** 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](#).

Use this procedure to export security log files. Use this procedure to schedule a data export task.

1. Select **Security Log > View History**.
The **View History** page appears.
2. If necessary, specify filter criteria and click **Go**.
The security log files are displayed according to the specified criteria.
3. Click **Export**.
The **Schedule Security Log Data Export** page appears.
4. Enter the **Task Name**.
For more information about **Task Name**, or any field on this page, see [Security log data export elements](#).
5. Enter a **Description** for the export task.
6. Select the **Export Frequency**.
7. If you selected Hourly as the export frequency, select the **Minute** of each hour for the data export.
8. Select the **Time of Day**.

Note: **Time of Day** is not an option if **Export Frequency** equals **Once**.

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

Note: **Day of Week** is not an option if **Export Frequency** equals **Once**.

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

From the **Status & Manage > Files** page, you can view a list of files available for download, including the file you exported during this procedure. For more information, see [Displaying the file list](#).

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

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

11. Click **Export**.

The file is exported.

12. Click the link in the green message box to go directly to the **Status & Manage > Files** page.

From the **Status & Manage > Files** page, you can view a list of files available for download, including the security log history you exported during this procedure.

If an export fails for any reason, an error message appears indicating this failure.

Note: Only one export operation at a time is supported on a single server. If an export is in progress from another GUI session when you click **Export**, a message is displayed and the export doesn't start. You must wait until the other export is complete before you can begin your export.

Security log data export elements

This table describes the elements on the **View History Export Security Log** page.

Table 12: Schedule Security Log Data Export Elements

Element	Description	Data Input Notes
Task Name	Name of the scheduled task	Format: Textbox 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	Description of the scheduled task	Format: Textbox Range: Maximum length is 255 characters; alphanumeric (a-z, A-Z, and 0-9) and minus sign (-). Description must begin with an alphanumeric character.

Element	Description	Data Input Notes
Export Frequency	Frequency at which the export occurs	Format: Radio button Range: Fifteen Minutes, Once, Hourly, Weekly, or Daily Default: Once
Minute	If hourly or fifteen minutes is selected for Export Frequency, this is the minute of each hour when the data will be written to the export directory.	Format: Textbox or Scrolling List Range: 0 to 59 Default: 0
Time of Day	Time of day the export occurs	Format: Scrolling List Range: 15-minute increments Default: 12:00 AM
Day of Week	Day of week on which the export occurs	Format: Radio button Range: Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, or Saturday Default: Sunday

Displaying 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 > Files**.

The **Status & Manage Files** page appears.

2. Select an **NE Name**.
3. Select a server.
All files stored on the selected server are displayed.
4. Click **List Files**.

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

All files stored on the selected server are displayed. The amount of available and used storage space appears at the bottom of the page.

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 that are scheduled to occur.

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.

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. This table describes elements on the **Active Tasks** page.

Table 13: 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

Deleting a task

Use this procedure to delete one or more tasks.

1. Select **Status & Manage > Tasks > Active Tasks**.

The **Active Tasks** page appears.

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**.

A confirmation box appears.

5. Click **OK** to delete the selected task(s).
The selected task(s) are deleted from the table.

Deleting all completed tasks

Use this procedure to delete all completed tasks.

1. Select **Status & Manage > Tasks > Active Tasks**.

The **Active Tasks** page appears.

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**.

A confirmation box appears.

4. Click **OK** to delete all completed tasks.

All tasks with the status of completed are deleted.

Canceling a running or paused task

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

1. Select **Status & Manage > Tasks > Active Tasks**.

The **Active Tasks** page appears.

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**.

A confirmation box appears.

5. Click **OK** to cancel the selected task.

The selected task is canceled.

Pausing a task

Use this procedure to pause a task.

1. Select **Status & Manage > Tasks > Active Tasks**.

The **Active Tasks** page appears.

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.

- Click **OK** to pause the selected task.

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

Restarting a task

Use this procedure to restart a task.

- Select **Status & Manage > Tasks > Active Tasks**.

The **Active Tasks** page appears.

- 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.

- Select a paused task.

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

- Click **Restart**.

A confirmation box appears.

- Click **OK** to restart the selected task.

The selected task is restarted.

Active Tasks report elements

The **Active Tasks Report** page displays report data for selected tasks. This table describes elements on the **Active Tasks Report** page.

Table 14: 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

Generating an active task report

Use this procedure to generate an active task report.

1. Select **Status & Manage > Tasks > Active Tasks**.

The **Active Tasks** page appears.

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 will be included in the report.

4. Click **Report**.

The **Tasks Report** page appears.

5. Click **Print** to print the report.

6. Click **Save** to save the report.

Scheduled Tasks

The periodic export of certain 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 types of data that can be exported, see:

- [Exporting active alarms](#)
- [Exporting alarm and event history](#)
- [Exporting security log files](#)
- [Exporting KPIs](#)
- [Exporting measurements reports](#)

Viewing scheduled tasks

Use this procedure to view the scheduled tasks.

Select **Status & Manage > Tasks > Scheduled Tasks**.

The **Scheduled Tasks** page appears, and all scheduled tasks are displayed.

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. This table describes elements on the **Scheduled Tasks** page.

Table 15: 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

Editing a scheduled task

Use this procedure to edit a scheduled task.

1. Select **Status & Manage > Tasks > Scheduled Tasks**.

The **Scheduled Tasks** page appears, and all scheduled tasks are displayed.

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.

Deleting a scheduled task

Use this procedure to delete one or more scheduled tasks.

1. Select **Status & Manage > Tasks > Scheduled Tasks**.

The **Scheduled Tasks** page appears, and all scheduled tasks are displayed.

2. Select one or more tasks.
3. Click **Delete**.

A confirmation box appears.

4. Click **OK** to delete the selected task(s).
The selected task(s) are deleted from the table.

Generating a scheduled task report

Use this procedure to generate a scheduled task report.

1. Select **Status & Manage > Tasks > Scheduled Tasks**.

The **Scheduled Tasks** page appears, and all scheduled tasks are displayed.

2. Select one or more tasks.

Note: If no tasks are selected, all tasks matching the current filter criteria will be included in the report.

3. Click **Report**.
The **Scheduled Tasks Report** page appears.
4. Click **Print** to print the report.
5. Click **Save** to save the report.

Generating a report of active alarms

Use this procedure to generate a report.

1. Select **Alarms & Events > View Active**.

The **View Active** page appears.

2. Specify filter criteria, if necessary, and click **Go**.

The active alarms are displayed according to the specified criteria. Alternately, you can select multiple rows and generate a report using those. To select multiple rows, press and hold **Ctrl** as you click to select specific rows.

3. Click **Report**.
The View Active Report is generated. This report can be printed or saved to a file.
4. Click **Print** to print the report.
5. Click **Save** to save the report to a file.

Viewing alarm and event history

All historical alarms and events are displayed in a scrollable, optionally filterable table. The historical alarms and events are sorted, by default, by time stamp with the most recent one at the top. Use this procedure to view alarm and event history.

Note: The alarms and events that appear in **View History** vary depending on whether you are logged in to an NOAMP or SOAM. Alarm collection is handled solely by NOAMP servers in systems that do not support SOAMs.

1. Select **Alarms & Events > View History** .
The **View History** page appears.
2. If necessary, specify filter criteria and click **Go**.

Note: Some fields, such as **Additional Info**, truncate data to a limited number of characters. When this happens, a **More** link appears. Click **More** to view a report that displays all relevant data.

Historical alarms and events are displayed according to the specified criteria.

The historical alarms table updates automatically. When new historical data is available, the table is automatically updated, and the view returns to the top row of the table.

3. To suspend automatic updates, click any row in the table.
The following message appears: (Alarm updates are suspended.)

If a new alarm is generated while automatic updates are suspended, a new message appears: (Alarm updates are suspended. Available updates pending.)

To resume automatic updates, press and hold **Ctrl** as you click to deselect the selected row.

Historical events data export elements

This table describes the elements on the **View History Export** page.

Table 16: Schedule Event Data Export Elements

Element	Description	Data Input Notes
Task Name	Name of the scheduled task	Format: Textbox 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.

Element	Description	Data Input Notes
Description	Description of the scheduled task	Format: Textbox 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	Frequency at which the export occurs	Format: Radio button Range: Fifteen Minutes, Hourly, Once, Weekly, or Daily Default: Once
Minute	If hourly or fifteen minutes is selected for Upload Frequency, this is the minute of each hour when the data will be written to the export directory.	Format: Scrolling list Range: 0 to 59 Default: 0
Time of Day	Time of day the export occurs	Format: Time textbox Range: 15-minute increments Default: 12:00 AM
Day of Week	Day of week on which the export occurs	Format: Radio button Range: Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, or Saturday Default: Sunday

Exporting alarm and event history

You can schedule periodic exports of historical data from the **Alarms and Events View History** page. Historical data can be exported immediately, or you can schedule exports to occur daily or weekly. If filtering has been applied in the **View History** 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](#).

The details of historical alarms and events can be exported to a file by clicking the **Export** button on the **View History** page. The system automatically creates and writes the exported historical alarm details to a CSV file in the file management area.

If filtering has been applied in the **View History** page, only filtered historical alarms and events are exported. Use this procedure to export alarm and event history to a file. Use this procedure to schedule a data export task.

1. Select **Alarms & Events > View History**.
The **View History** page appears.
2. If necessary, specify filter criteria and click **Go**.
The historical alarms and events are displayed according to the specified criteria.
3. Click **Export**.
The **Schedule Event Data Export** page appears.
4. Enter the **Task Name**.
For more information about **Task Name**, or any field on this page, see [Historical events data export elements](#).
5. Select the **Export Frequency**.
6. If you selected **Hourly**, specify the **Minutes**.
7. Select the **Time of Day**.
Note: **Time of Day** is not an option if **Export Frequency** equals **Once**.
8. Select the **Day of Week**.
Note: **Day of Week** is not an option if **Export Frequency** equals **Once**.
9. Click **OK** or **Apply** to initiate the data export task.

The data export task is scheduled. From the **Status & Manage > Files** page, you can view a list of files available for download, including the alarm history file you exported during this procedure. For more information, see [Displaying the file list](#).

Scheduled tasks can be viewed, edited, and deleted, and reports of scheduled tasks can be generated from **Status & Manage > Tasks**. For more information see:
 - [Viewing scheduled tasks](#)
 - [Editing a scheduled task](#)
 - [Deleting a scheduled task](#)
 - [Generating a scheduled task report](#)
10. Click **Export**.
The file is exported.
11. Click the link in the green message box to go directly to the **Status & Manage > Files** page.



• The alarm and event history is currently being exported to Events_20090812_175538.csv.

From the **Status & Manage > Files** page, you can view a list of files available for download, including the alarm history file you exported during this procedure. For more information, see [Opening a file](#).

Opening a file

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

1. Select **Status & Manage > Files**.
The **Status & Manage Files** page appears.
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.
Your browser's **File Download** window appears.
5. Click **Open** to open the file.

Generating a report of historical alarms and events

Use this procedure to generate a report.

1. Select **Alarms & Events > View History**.
The **View History** page appears.
2. Specify filter criteria, if necessary, and click **Go**.
The historical alarms and events are displayed according to the specified criteria.
3. Click **Report**.
The View History Report is generated. This report can be printed or saved to a file.
4. Click **Print** to print the report.
5. Click **Save** to save the report to a file.

List of alarms

This section of the document provides a list of all alarms that can be raised by the system. They are in numeric order and are grouped by alarm type.

10000-10999 - Operations, Administration, and Maintenance

This section provides information and recovery procedures for Operations, Administration, and Maintenance (OAM) alarms, ranging from 10000-10999.

Alarms and events are recorded in a database log table. Currently active alarms can be viewed from the Launch Alarms Dashboard GUI menu option. The alarms and events log can be viewed from the **Alarms & Events > View History** page.

10000 - Incompatible database version

Alarm Group: DB

Description: The database version is incompatible with the installed software database version.

Severity: Critical

Instance: N/A

HA Score: Failed

Auto Clear Seconds: 300

OID: tekelecIncompatibleDatabaseVersionNotify

Recovery: Contact *My Oracle Support (MOS)*.

10001 - Database backup started

Event Type: DB

Description: The database backup has started.

Severity: Info

Instance: GUI

HA Score: Normal

Throttle Seconds: 1

OID: tekelecBackupStartNotify

Recovery: No action required.

10002 - Database backup completed

Event Type: DB

Description: Backup completed

Severity: Info

Instance: GUI

HA Score: Normal

Throttle Seconds: 1

OID: tekelecBackupCompleteNotify

Recovery:

No action required.

10003 - Database backup failed

Event Type: DB

Description: The database backup has failed.

Severity: Info

Instance: N/A

HA Score: Normal

Throttle Seconds: 1

OID: tekelecBackupFailNotify

Recovery:

Contact *My Oracle Support (MOS)*.

10004 - Database restoration started

Event Type: DB

Description: The database restoration has started.

Severity: Info

Instance: N/A

HA Score: Normal

Throttle Seconds: 1

OID: tekelecRestoreStartNotify

Recovery:

No action required.

10005 - Database restoration completed

Event Type: DB

Description: The database restoration is completed.

Severity: Info

Instance: N/A

HA Score: Normal

Throttle Seconds: 1

OID: tekelecRestoreCompleteNotify

Recovery:

No action required.

10006 - Database restoration failed

Event Type: DB

Description: The database restoration has failed.

Severity: Info

Instance: N/A

HA Score: Normal

Throttle Seconds: 1

OID: tekelecRestoreFailNotify

Recovery:

Contact [My Oracle Support \(MOS\)](#).

10008 - Database provisioning manually disabled

Alarm Group: DB

Description: Database provisioning has been manually disabled.

Severity: Minor

Instance: N/A

HA Score: Normal

Auto Clear Seconds: This alarm does not autoclear.

OID: awpss7TekelecProvisioningManuallyDisabledNotify

Recovery:

No action required.

10009 - Config and Prov db not yet synchronized

Alarm Group: REPL

Description: The configuration and the provisioning databases are not yet synchronized.

Severity: Critical

Instance: N/A

HA Score: Failed

Auto Clear Seconds: This alarm does not autoclear.

OID: awpss7OAGTCfgProvDbNoSyncNotify

Recovery:

1. Monitor the replication status using the Status & Manage > Replication GUI page.
2. If alarm persists for more than one hour, contact [My Oracle Support \(MOS\)](#).

10010 - Stateful db from mate not yet synchronized

Alarm Group: HA

Description: The stateful database is not synchronized with the mate database.

Severity: Minor

Instance: N/A

HA Score: Degraded

Auto Clear Seconds: This alarm does not autoclear.

OID: awpss7OAGTStDbNoSyncNotify

Recovery:

If alarm persists for more than 30 seconds, contact [My Oracle Support \(MOS\)](#).

10011 - Cannot monitor table

Alarm Group: OAM

Description: Monitoring for table cannot be set up.

Severity: Major

Instance: N/A

HA Score: Degraded

Auto Clear Seconds: This alarm does not autoclear.

OID: awpss7OAGTCantMonitorTableNotify

Recovery:

Contact [My Oracle Support \(MOS\)](#).

10012 - Table change responder failed

Alarm Group: OAM

Description: The responder for a monitored table failed to respond to a table change.

Severity: Major

Instance: N/A

HA Score: Degraded

Auto Clear Seconds: This alarm does not autoclear.

OID: awpss7OAGTResponderFailedNotify

Recovery:

Contact [My Oracle Support \(MOS\)](#).

10013 - Application restart in progress

Alarm Group: HA

Description: An application restart is in progress.

Severity: Minor

Instance: N/A

HA Score: Normal

Auto Clear Seconds: This alarm does not autoclear.

OID: awpss7OAGTApplSWDisabledNotify

Recovery:

If duration of alarm is greater than two seconds, contact [My Oracle Support \(MOS\)](#).

10020 - Backup failure**Alarm Group:** DB**Description:** Database backup failed.**Severity:** Minor**Instance:** N/A**HA Score:** Normal**Auto Clear Seconds:** This alarm does not autoclear.**OID:** awpss7ApwBackupFailureNotify**Recovery:**

Alarm will clear if a backup (Automated or Manual) of the same group data is successful. Contact [My Oracle Support \(MOS\)](#) if failures persist.

10074 - Standby server degraded while mate server stabilizes**Alarm Group:** HA**Description:** The standby server has temporarily degraded while the new active server stabilizes following a switch of activity.**Severity:** Minor**Instance:** N/A**HA Score:** Degraded**Auto Clear Seconds:** This alarm does not autoclear.**OID:** awpss7HASbyRecoveryInProgressNotify**Recovery:**

No action required; the alarm clears automatically when standby server is recovered. This is part of the normal recovery process for the server that transitioned to standby as a result of a failover.

10075 - Application processes have been manually stopped**Alarm Group:** HA**Description:** The server is no longer providing services because application processes have been manually stopped.**Severity:** Minor**Instance:** N/A**HA Score:** Failed**Auto Clear Seconds:** This alarm does not autoclear.**OID:** awpss7HAMtceStopApplicationsNotify**Recovery:**

If maintenance actions are complete, restart application processes on the server from the **Status & Manage > Servers** page by selecting the Restart Applications action for the server that raised the alarm.

Once successfully restarted the alarm will clear.

10078 - Application not restarted on standby server due to disabled failure cleanup mode

Event Type: HA

Description: The Applications on the Standby server have not been restarted after an active-to-standby transition since h_FailureCleanupMode is set to 0.

Severity: Info

Instance: N/A

HA Score: Normal

Throttle Seconds: 1

OID: awpss7FailureRecoveryWithoutAppRestartNotify

Recovery:

Contact [My Oracle Support \(MOS\)](#).

10100 - Log export started

Event Type: LOG

Description: Log files export operation has started.

Severity: Info

Instance: N/A

HA Score: Normal

Throttle Seconds: 1

OID: awpss7TekelecLogExportStartNotify

Recovery:

No action required.

10101 - Log export successful

Event Type: LOG

Description: The log files export operation completed successfully.

Severity: Info

Instance: N/A

HA Score: Normal

Throttle Seconds: 1

OID: awpss7TekelecLogExportSuccessNotify

Recovery:

No action required.

10102 - Log export failed

Event Type: LOG

Description: The log files export operation failed.

Severity: Info

Instance: N/A

HA Score: Normal

Throttle Seconds: 1

OID: awpss7TekelecLogExportFailedNotify

Recovery:

1. Verify the export request and try the export again.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

10103 - Log export already in progress

Event Type: LOG

Description: Log files export operation not run - export can only run on Active Network OAMP server.

Severity: Info

Instance: N/A

HA Score: Normal

Throttle Seconds: 1

OID: awpss7TekelecLogExportNotRunNotify

Recovery:

Restart export operation after existing export completes.

10104 - Log export file transfer failed

Event Type: LOG

Description: The performance data export remote copy operation failed.

Severity: Info

Instance: <Task ID>

Note: <Task ID> refers to the ID column found in **Main Menu > Status & Manage > Tasks > Active Tasks**.

HA Score: Normal

Throttle Seconds: 1

OID: awpss7TekelecExportXferFailedNotify

Recovery:

Contact [My Oracle Support \(MOS\)](#) for assistance.

10105 - Log export cancelled - user request

Event Type: LOG

Description: The log files export operation cancelled by user.

Severity: Info

Instance: <Task ID>

Note: <Task ID> refers to the ID column found in **Main Menu > Status & Manage > Tasks > Active Tasks**.

HA Score: Normal

Throttle Seconds: 1

OID: awpss7TekelecLogExportCancelledUserNotify

Recovery:

Contact [My Oracle Support \(MOS\)](#) for assistance.

10106 - Log export cancelled - duplicate request

Event Type: LOG

Description: The log files export operation was cancelled because a scheduled export is queued already.

Severity: Info

Instance: <Task ID>

Note: <Task ID> refers to the ID column found in **Main Menu > Status & Manage > Tasks > Active Tasks**.

HA Score: Normal

Throttle Seconds: 1

OID: awpss7TekelecLogExportCancelledDuplicateNotify

Recovery:

1. Check the duration and/or frequency of scheduled exports as they are not completing before the next scheduled export is requested.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#) for assistance.

10107 - Log export cancelled - queue full

Event Type: LOG

Description: The log files export operation cancelled because the export queue is full.

Severity: Info

Instance: <Task ID>

Note: <Task ID> refers to the ID column found in **Main Menu > Status & Manage > Tasks > Active Tasks**.

HA Score: Normal

Throttle Seconds: 1

OID: awpss7TekelecLogExportCancelledQueueNotify

Recovery:

1. Check the amount, duration and/or frequency of scheduled exports to ensure the queue does not fill up.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#) for assistance.

10108 - Duplicate scheduled log export task

Alarm Group: LOG

Description: A duplicate scheduled log export task has been queued.

Severity: Minor

Instance: <Target ID>

Note: <Target ID> refers to the scheduled task ID found by running a report from **Main Menu > Status & Manage > Tasks > Scheduled Tasks**.

HA Score: Normal

Auto Clear Seconds: This alarm does not autoclear.

OID: awpss7TekelecLogExportDupSchedTaskNotify

Recovery:

1. Check the duration and/or frequency of scheduled exports as they are not completing before the next scheduled export is requested.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#) for assistance.

10109 - Log export queue is full

Alarm Group: LOG

Description: The log export queue is full

Severity: Minor

Instance: <Queue Name>

Note: <Queue Name> refers to the name of the queue used for the export task ID found by running a report from either **Main Menu > Status & Manage > Tasks > Active Tasks** or **Main Menu > Status & Manage > Tasks > Scheduled Tasks**.

HA Score: Normal

Auto Clear Seconds: This alarm does not autoclear.

OID: awpss7TekelecLogExportQueueFullNotify

Recovery:

1. Check the amount, duration and/or frequency of scheduled exports to ensure that the queue does not fill up.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#) for assistance.

10151 - Login successful

Event Type: LOG

Description: The login operation was successful.

Severity: Info

Instance: N/A

HA Score: Normal

Throttle Seconds: 1

OID: awpss7TekelecLoginSuccessNotify

Recovery:

No action required.

10152 - Login failed

Event Type: LOG

Description: The login operation failed

Severity: Info

Instance: N/A

HA Score: Normal

Throttle Seconds: 1

OID: awpss7TekelecLoginFailedNotify

Recovery:

Verify login information and case is correct, and re-enter.

10153 - Logout successful

Event Type: LOG

Description: The logout operation was successful.

Severity: Info

Instance: N/A

HA Score: Normal

Throttle Seconds: 1

OID: awpss7TekelecLogoutSuccessNotify

Recovery:

No action required.

10154 - User Account Disabled

Alarm Group: AUTH

Description: User account has been disabled due to multiple login failures.

Severity: Minor

Instance: N/A

HA Score: Normal

Auto Clear Seconds: This alarm does not autoclear.

OID: awpss7TekelecAccountDisabledNotify

Recovery:

The alarm will clear if the account is automatically re-enabled. Otherwise, the administrator must enable or delete user account.

10155 - SAML Login Successful

Alarm Group: LOG

Description: SAML Login Successful

Severity: Info

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: awpss7TekelecSamlLoginSuccessNotify

Recovery:

This is not a failure event. It's an indication that a user was successfully authenticated for login to the GUI. This applies to both conventional login and Single Sign On (SSO) login.

10156 - SAML Login Failed

Alarm Group: LOG

Description: An attempt to login to the GUI via conventional login or via SSO login failed.

Severity: Info

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: awpss7TekelecSamLoginFailedNotify

Recovery:

1. Use correct username and password to log in.
2. For failed SSO login, verify SSO was properly configured. Collect logs and contact [My Oracle Support \(MOS\)](#) if the problem persists.

10200 - Remote database reinitialization in progress

Alarm Group: CFG

Description: The remote database reinitialization is in progress. This alarm is raised on the active NOAMP server for the server being added to the server group.

Severity: Minor

Instance: <hostname of remote server>

HA Score: Normal

Auto Clear Seconds: This alarm does not autoclear.

OID: awpss7ApwSgDbReinitNotify

Recovery:

1. Check to see that the remote server is configured.
2. Make sure the remote server is responding to network connections.
3. If this does not clear the alarm, delete this server from the server group.
4. If the problem persists, contact [My Oracle Support \(MOS\)](#).

11500-11549 - IDIH

This section provides information and recovery procedures for Integrated Diameter Intelligence Hub (IDIH) alarms, which range from 11500 to 11549.

Alarms and events are recorded in a database log table. Currently active alarms can be viewed from the Launch Alarms Dashboard GUI menu option. The alarms and events log can be viewed from the **Alarms & Events > View History** page.

11500 - Tracing Suspended

Alarm Group: IDIH

Description: IDIH trace has been suspended due to DA-MP (danger of) CPU congestion.

Severity: Minor

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterTracingSuspendedAlarmNotify

Recovery:

No action required

11501 - Trace Throttling Active

Alarm Group: IDIH

Description: Troubleshooting trace has been throttled on some MPs due to IDIH TTR bandwidth usage exceeding provisioned limit.

Severity: Minor

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterTracingThrottledAlarmNotify

Recovery:

No action required

11502 - Troubleshooting Trace Started

Event Group: IDIH

Description: A troubleshooting trace instance was started.

Severity: Info

Instance: <TraceInstanceId>

HA Score: Normal

Throttle Seconds: 10

OID: eagleXgDiameterIDIHTraceStartedNotify

Recovery:

No action required.

11503 - Troubleshooting Trace Stopped

Event Group: IDIH

Description: A troubleshooting trace instance was stopped.

Severity: Info

Instance: <TraceInstanceId>

HA Score: Normal

Throttle Seconds: 10

OID: eagleXgDiameterIDIHTraceStoppedNotify

Recovery:

No action required

11504 - Invalid DIH IP Address**Alarm Group:** IDIH**Description:** Unable to connect via ComAgent to remote DIH server with IP**Severity:** Minor**Instance:** String of Configured DIH IP Address**HA Score:** Normal**Auto Clear Seconds:** 0 (zero)**OID:** eagleXgDiameterInvalidDihIpAddressAlarmNotify**Recovery:**

No action required

13000-13100 - PROV (UDR RAS, XSAS, and Prov-Misc)

This section provides information and recovery procedures for provisioning alarms (RAS, XSAS, and miscellaneous provisioning-related), ranging from 13000 - 13100. Alarms and events are recorded in a database log table.

Alarms and events are recorded in a database log table. Currently active alarms can be viewed from the Launch Alarms Dashboard GUI menu option. The alarms and events log can be viewed from the **Alarms & Events > View History** page.

13000 - RAS Interface Disabled**Alarm Type:** PROV**Description:** Provisioning interface is manually disabled.**Severity:** Critical**Instance:** N/A**HA Score:** Normal**Auto Clear Seconds:** 0**OID:** RasProvInterfaceDisabled**Recovery:**

1. Manually enable the interface on the Provisioning Options page.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13001 - No Remote RAS Client Connections**Alarm Type:** PROV**Description:** Provisioning interface is enabled and no remote provisioning clients are connected.**Severity:** Major

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0

OID: RasProvNoRemoteConnections

Recovery:

1. Verify the provisioning interface is enabled and establish at least one remote RAS provisioning client connection.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13002 - RAS Connection Failed

Alarm Type: PROV

Description: Provisioning client connection initialization failed due to an error. See the trace log for details (CID=<Connection ID>, IP=<IP Address>).

Severity: Major

Instance: Connection ID : IP Address

HA Score: Normal

Auto Clear Seconds: 300

OID: RasProvConnectionFailed

Recovery:

1. Wait 5 minutes for the alarm to automatically clear or establish a successful RAS connection.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13003 - Invalid RAS Provisioning Configuration

Alarm Type: PROV

Description: Provisioning client connection initialization failed because the provisioning ports are the same.

Severity: Major

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0

OID: RasProvInvalidConfiguration

Recovery:

1. Change the ports to all be unique on the Provisioning Options page.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13010 - RAS Connection Established

Alarm Type: PROV

Description: This event is generated each time a remote provisioning client successfully establishes a REST connection. (Remote client connection established -- CID *Connection ID*, IP *IP Address*)

Severity: Info

Instance: N/A

HA Score: Normal

Auto Clear Seconds: N/A

OID: RasProvConnectionEstablished

Recovery:

No action required.

13011 - RAS Connection Terminated

Alarm Type: PROV

Description: This event is generated each time a remote provisioning client connection terminates. (Remote client connection terminated -- CID *Connection ID*, IP *IP Address*)

Severity: Info

Instance: N/A

HA Score: Normal

Auto Clear Seconds: N/A

OID: RasProvConnectionTerminated

Recovery:

1. Attempt to re-establish the RAS connection.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13012 - RAS Connection Denied

Alarm Type: PROV

Description: This event is generated each time a local or remote provisioning client initiated connection establishment is denied due to one of the following reasons:

- Connection originating from an unauthorized IP address
- Maximum number of allowed remote client connections have been reached

Severity: Info

Instance: N/A

HA Score: Normal

Auto Clear Seconds: N/A

OID: RasProvConnectionDenied

Recovery:

1. Determine the cause the issue using the following
 - Is the IP address authorized?
 - Has the maximum number of allowed remote client connections been reached?
2. After resolving the underlying issue, attempt to reconnect the RAS connection.
3. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13026 - XSAS Interface Disabled

Alarm Type: PROV

Description: Provisioning interface is manually disabled.

Severity: Critical

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0

OID: XsasProvInterfaceDisabled

Recovery:

1. Manually enable the interface if the Provisioning Interface was manually disabled.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13027 - No Remote XSAS Client Connections

Alarm Type: PROV

Description: No remote provisioning XSAS clients are connected.

Severity: Major

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0

OID: XsasProvNoRemote Connections

Recovery:

1. Verify the provisioning interface is enabled.
2. Establish at least one remote XSAS provisioning client connection.
3. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13028 - XSAS Connection Failed

Alarm Type: PROV

Description: Provisioning client connection initialization failed due to an error. See the trace log for details. (CID=<Connection ID>, IP=<IP Address>).

Severity: Major

Instance: Connection ID : IP Address

HA Score: Normal

Auto Clear Seconds: 0

OID: XsasProvConnectionFailed

Recovery:

1. Wait 5 minutes for the alarm to automatically clear or establish a successful XSAS connection.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13029 - Invalid XSAS Provisioning Configuration

Alarm Type: PROV

Description: Provisioning client connection initialization failed because the provisioning ports are the same.

Severity: Major

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0

OID: XsasProvInvalidConfiguration

Recovery:

1. Change the ports to all be unique.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13035 - XSAS Connection Established

Alarm Type: PROV

Description: This event is generated each time a remote provisioning client successfully establishes a SOAP connection.

Severity: Info

Instance: N/A

HA Score: Normal

Auto Clear Seconds: N/A

OID: XsasProvConnectionEstablished

Recovery:

No action required.

13036 - XSAS Connection Terminated**Alarm Type:** PROV**Description:** This event is generated each time a remote provisioning client connection terminates.**Severity:** Info**Instance:** N/A**HA Score:** Normal**Auto Clear Seconds:** N/A**OID:** XsasProvConnectionTerminated**Recovery:**

1. Attempt to re-establish the XSAS connection.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13037 - XSAS Connection Denied**Alarm Type:** PROV**Description:** This event is generated each time a local or remote provisioning client initiated connection establishment is denied due to one of the following reasons:

- Connection originating from an unauthorized IP address
- Maximum number of allowed remote client connections have been reached

Severity: Info**Instance:** N/A**HA Score:** Normal**Auto Clear Seconds:** N/A**OID:** XSASConnectionDenied**Recovery:**

1. Determine the cause of the issue using the following:
 - Is the IP address authorized?
 - Has the maximum number of allowed remote client connections been reached?
2. After resolving the underlying issue, attempt to reconnect the XSAS connection.
3. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13051 - Import Throttled**Alarm Type:** PROV**Description:** Provisioning import throttled to prevent overrunning database service processes.**Severity:** Minor**Instance:** provimport

HA Score: Normal

Auto Clear Seconds: 5

OID: ProvImportThrottled

Recovery:

1. Wait 5 seconds for throttling to subside.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13052 - Import Initialization Failed

Alarm Type: PROV

Description: Provisioning import failed due to initialization error. See the trace log for details.

Severity: Major

Instance: provimport

HA Score: Normal

Auto Clear Seconds: 43200

OID: ProvImport InitializationFailed

Recovery:

1. Correct the problem based on the error in the trace log.
2. Try the import again.
3. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13053 - Import Generation Failed

Alarm Type: PROV

Description: Provisioning import failed due to failure to generate import log. See the trace log for error details.

Severity: Major

Instance: provimport

HA Score: Normal

Auto Clear Seconds: 43200

OID: ProvImport GenerationFailed

Recovery:

1. Correct the problem based on the error in the trace log.
2. Try the import again.
3. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13054 - Import Transfer Failed

Alarm Type: PROV

Description: Provisioning import operation failed due to a file transfer error for the import log. Failed to transfer the file either to or from the remote host. See the trace log for details.

Severity: Major

Instance: provimport

HA Score: Normal

Auto Clear Seconds: 43200

OID: ProvImportTransferFailed

Recovery:

1. Correct the problem based on the error in the trace log.
2. Try the import again.
3. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13055 - Import Successful

Alarm Type: PROV

Description: This event is generated each time an XML import is successful.

Severity: Info

Instance: N/A

HA Score: Normal

Auto Clear Seconds: N/A

OID: ProvImportSuccessful

Recovery:

No action required.

13056 - Export Initialization Failed

Alarm Type: PROV

Description: Provisioning export failed due to an initialization. See the trace log for details.

Severity: Major

Instance: provexport

HA Score: Normal

Auto Clear Seconds: 43200

OID: ProvExport InitializationFailed

Recovery:

1. Correct the problem based on the error in the trace log.
2. Try the export again.
3. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13057 - Export Generation Failed

Alarm Type: PROV

Description: Provisioning export failed due to failure to generate export log. See the trace log for error details.

Severity: Major

Instance: provixport

HA Score: Normal

Auto Clear Seconds: 43200

OID: ProvExport GenerationFailed

Recovery:

1. Correct the problem based on the error in the trace log.
2. Try the export again.
3. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13058 - Export TransferFailed

Alarm Type: PROV

Description: Provisioning export operation failed due to a file transfer error for the export log. The file failed to transfer either from or to the remote host. See the trace log for error details.

Severity: Major

Instance: provexport

HA Score: Normal

Auto Clear Seconds: 43200

OID: ProvExportTransferFailed

Recovery:

1. Correct the problem based on the error in the trace log.
2. Try the export again.
3. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13059 - Export Successful

Alarm Type: PROV

Description: This event is generated each time an XML export is successful.

Severity: Info

Instance: N/A

HA Score: Normal

Auto Clear Seconds: N/A

OID: ProvExportSuccessful

Recovery:

No action required.

13061 - ERA ResponderFailed

Alarm Type: PROV

Description: Event responder failed (or event responder error cleared).

Severity: Major

Instance: era

HA Score: Normal

Auto Clear Seconds: 0

OID: EraResponderFailed

Recovery:

Contact [My Oracle Support \(MOS\)](#).

13062 - RAS Process CPU Utilization Threshold Exceeded

Alarm Type: PROV

Description: The RAS Process CPU Utilization is approaching its maximum capacity. The alarm severity depends on the amount of CPU being used:

- Minor when utilization exceeds 60%
- Major when utilization exceeds 66%
- Critical when utilization exceeds 72%

Severity: Minor (Major, Critical)

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0

OID: RasProcCpuThresh

Recovery:

1. Reduce the REST interface provisioning rate to clear the alarm. The alarm clears when utilization falls below these thresholds:
 - <= 57% (clears Minor alarm)
 - <= 63% (clears Major alarm)
 - <= 69% (clears Critical alarm)
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13063 - RAS Process Memory Utilization Threshold Exceeded

Alarm Type: PROV

Description: The RAS Process Memory Utilization is approaching its maximum capacity. The alarm severity depends on the amount of memory being used:

- Minor when utilization exceeds 60%
- Major when utilization exceeds 66%
- Critical when utilization exceeds 72%

Severity: Minor (Major, Critical)

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0

OID: RasProcMemThresh

Recovery:

1. Reduce the REST interface provisioning rate to clear the alarm. The alarm clears when utilization falls below these thresholds:
 - <= 57% (clears Minor alarm)
 - <= 63% (clears Major alarm)
 - <= 69% (clears Critical alarm)
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13064 - XSAS Process CPU Utilization Threshold Exceeded

Alarm Type: PROV

Description: The XSAS Process CPU Utilization is approaching its maximum capacity. The alarm severity depends on the amount of CPU being used:

- Minor when utilization exceeds 60%
- Major when utilization exceeds 66%
- Critical when utilization exceeds 72%

Severity: Minor (Major, Critical)

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0

OID: XsasProcCpuThresh

Recovery:

1. Reduce the SOAP interface provisioning rate to clear the alarm. The alarm clears when utilization falls below these thresholds:
 - <= 57% (clears Minor alarm)
 - <= 63% (clears Major alarm)

- <= 69% (clears Critical alarm)
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13065 - XSAS Process Memory Utilization Threshold Exceeded

Alarm Type: PROV

Description: The XSAS Process Memory Utilization is approaching its maximum capacity. The alarm severity depends on the amount of memory being used:

- Minor when utilization exceeds 60%
- Major when utilization exceeds 66%
- Critical when utilization exceeds 72%

Severity: Minor (Major, Critical)

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0

OID: XsasProcMemThresh

Recovery:

1. Reduce the SOAP interface provisioning rate to clear the alarm. The alarm clears when utilization falls below these thresholds:
 - <= 57% (clears Minor alarm)
 - <= 63% (clears Major alarm)
 - <= 69% (clears Critical alarm)
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13101-13500 - User Data Repository

This section provides information and recovery procedures for UDR alarms and events, ranging from 13101-13500.

Alarms and events are recorded in a database log table. Currently active alarms can be viewed from the Launch Alarms Dashboard GUI menu option. The alarms and events log can be viewed from the **Alarms & Events > View History** page.

13151 - AE Sh Create Failed

Alarm Type: UDR

Description: The creation of an auto-enrolled subscriber initiated by the reception of an Sh interface request failed.

Severity: Info

Instance: N/A

HA Score: Normal

Auto Clear Seconds: N/A

OID: xgSDMAeShCreateFailed

Recovery:

Contact [My Oracle Support \(MOS\)](#).

13152 - AE Sh Delete Failed

Alarm Type: UDR

Description: The deletion of an auto-enrolled subscriber initiated by the reception of an Sh interface request failed.

Severity: Info

Instance: N/A

HA Score: Normal

Auto Clear Seconds: N/A

OID: xgSDMAeShDeleteFailed

Recovery:

Contact [My Oracle Support \(MOS\)](#).

13153 - AE Prov Create Failed

Alarm Type: UDR

Description: The creation of an auto-enrolled subscriber initiated by the reception of a provisioning interface request failed.

Severity: Info

Instance: N/A

HA Score: Normal

Auto Clear Seconds: N/A

OID: xgSDMAeProvCreateFailed

Recovery:

Contact [My Oracle Support \(MOS\)](#).

13154 - AE Convert Failed

Alarm Type: UDR

Description: The conversion of an auto-enrolled subscriber to a provisioned subscriber while provisioning failed.

Severity: Info

Instance: N/A

HA Score: Normal

Auto Clear Seconds: N/A

OID: xgSDMAeConvertToProvFailed

Recovery:

Contact [My Oracle Support \(MOS\)](#).

13251 - Subscription Record Full

Alarm Type: UDR

Description: The subscription record exceeded the maximum number of allowed notification subscriptions. When the maximum number of subscriptions is exceeded, the oldest subscription is purged to make room for the new subscription.

Severity: Info

Instance: N/A

HA Score: Normal

Auto Clear Seconds: N/A

OID: xgSDMUdrSmSNOFull

Recovery:

1. Determine whether the cause of the event is one of the following:
 - Failures/restarts of an AS when a subscription was active (and thus an unsubscribe request was not sent)
 - Multiple subscribe requests from the same AS but with different user identities (IMSI, MSISDN, NAI etc.)
2. If these cases are valid, it may be possible to increase the maximum number of subscriptions allowed. Contact [My Oracle Support \(MOS\)](#).

13252 - Notification Late Response

Alarm Type: UDR

Description: A notification delivery response was received after timeout expired.

Severity: Info

Instance: N/A

HA Score: Normal

Auto Clear Seconds: N/A

OID: xgSDMNotifLateResponse

Recovery:

Contact [My Oracle Support \(MOS\)](#).

13253 - Notification No Valid Entity**Alarm Type:** UDR**Description:** The notification contains no valid entities. This event is most likely to occur if an entity is deleted from the Subscriber Entity Configuration, and a notification had been already written for the deleted entity.**Severity:** Info**Instance:** N/A**HA Score:** Normal**Auto Clear Seconds:** N/A**OID:** xgSDMNotifNoValidEntity**Recovery:**Contact [My Oracle Support \(MOS\)](#).**13254 - AS Unavailable****Alarm Type:** UDR**Description:** The AS is unavailable. An AS becomes unavailable when a configurable number of attempts to deliver (different or the same) notifications to an AS fail, and the error indicates that the PNR did not reach the AS or could not be processed because the AS was too busy.**Severity:** Major**Instance:** AS address**HA Score:** Normal**Auto Clear Seconds:** 0**OID:** xgSDMASUnavailable**Recovery:**

1. Verify connectivity status between UDR and the AS, using the SO GUI.
2. Verify the connection states are as expected.
3. Check the event history logs for additional DIAM events or alarms from the MP server.
4. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13255 - Notification Table Full**Alarm Type:** UDR**Description:** The Notification table contains too many notifications that have not been delivered to ASs. This could be because:

- The rate at which notifications are being produced exceeds the rate at which they can be delivered.
- Notifications cannot be delivered to AS(s) because they are unavailable, and the notifications are being buffered for delivery at a later time.

The alarm severity depends upon the amount of the Notification Table being used:

- Minor when utilization exceeds 60%.
- Major when utilization exceeds 80%.
- Critical when utilization exceeds 95%.

Severity: Major (Minor, Critical)

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0

OID: xgSDMNotificationTableFull

Recovery:

1. Reduce the traffic rate to clear the alarm. The alarm clears when utilization falls below these thresholds:
 - <= 50% (clears Minor alarm)
 - <= 70% (clears Major alarm)
 - <= 90% (clears Critical alarm)
2. Verify that the application server(s) are available by checking the **Main Menu > UDR > Maintenance > Subscribing Client Status** page.
3. Depending on the reason that notifications cannot be delivered, it may be necessary to increase the number of notifications that can be stored by UDR. Contact [My Oracle Support \(MOS\)](#).

13351 - SNO Audit Complete

Alarm Type: UDR

Description: The SNO audit is complete.

Severity: Info

Instance: N/A

HA Score: Normal

Auto Clear Seconds: N/A

OID: xgSDMAuditStatisticsReportSNO

Recovery:

No action required.

13352 - SDO Audit Complete

Alarm Type: UDR

Description: The SDO audit is complete.

Severity: Info

Instance: N/A

HA Score: Normal

Auto Clear Seconds: N/A

OID: xgSDMAuditStatisticsReportSDO

Recovery:

No action required.

13354 - UDRBE Provisioning Task Message Queue Utilization

Alarm Type: UDR

Description: The UDRBE application's provisioning task message queue is approaching its maximum capacity. This alarm should not occur when no other congestion alarms are asserted. The alarm severity depends upon the amount of the UDRBE provisioning task message queue being used:

- Minor when utilization exceeds 60%.
- Major when utilization exceeds 80%.
- Critical when utilization exceeds 95%.

Severity: Major (Minor, Critical)

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0

OID: UdrbeProvisioningTaskMessageQueueUtilization

Recovery:

1. Determine whether the traffic rate of the system is too high. If yes, reduce traffic rate to clear alarm. The alarm clears when utilization falls below these thresholds:
 - <= 50% (clears Minor alarm)
 - <= 70% (clears Major alarm)
 - <= 90% (clears Critical alarm)
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13355 - UDRBE Notification Task Event Queue Utilization

Alarm Type: UDR

Description: The UDRBE application's notification task event queue is approaching its maximum capacity. This alarm should not occur when no other congestion alarms are asserted. The alarm severity depends upon the amount of the UDRBE notification task event queue being used:

- Minor when utilization exceeds 60%.
- Major when utilization exceeds 80%.
- Critical when utilization exceeds 95%.

Severity: Major (Minor, Critical)

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0

OID: UdrbeNotificationTaskEventQueueUtilization

Recovery:

1. Determine whether the traffic rate of the system is too high. If yes, reduce traffic rate to clear alarm. The alarm clears when utilization falls below these thresholds:
 - <= 50% (clears Minor alarm)
 - <= 70% (clears Major alarm)
 - <= 90% (clears Critical alarm)
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13356 - UDRBE Udr Task Event Queue Utilization

Alarm Type: UDR

Description: The UDRBE application's UDR task event queue is approaching its maximum capacity. This alarm should not occur when no other congestion alarms are asserted. The alarm severity depends upon the amount of the UDRBE UDR task event queue being used:

- Minor when utilization exceeds 60%.
- Major when utilization exceeds 80%.
- Critical when utilization exceeds 95%.

Severity: Major (Minor, Critical)

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0

OID: UdrbeUdrTaskEventQueueUtilization

Recovery:

1. Determine whether the traffic rate of the system is too high. If yes, reduce traffic rate to clear alarm. The alarm clears when utilization falls below these thresholds:
 - <= 50% (clears Minor alarm)
 - <= 70% (clears Major alarm)
 - <= 90% (clears Critical alarm)
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13357 - UDRBE Subscription Task Event Queue Utilization

Alarm Type: UDR

Description: The UDRBE application's subscription task event queue is approaching its maximum capacity. This alarm should not occur when no other congestion alarms are asserted. The alarm severity depends upon the amount of the UDRBE subscription task event queue being used:

- Minor when utilization exceeds 60%.
- Major when utilization exceeds 80%.

- Critical when utilization exceeds 95%.

Severity: Major (Minor, Critical)

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0

OID: UdrbeSubscriptionTaskEventQueueUtilization

Recovery:

1. Determine whether the traffic rate of the system is too high. If yes, reduce traffic rate to clear alarm. The alarm clears when utilization falls below these thresholds:
 - <= 50% (clears Minor alarm)
 - <= 70% (clears Major alarm)
 - <= 90% (clears Critical alarm)
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13358 - UDRBE Auto Enrollment Task Event Queue Utilization

Alarm Type: UDR

Description: The UDRBE application's auto enrollment task event queue is approaching its maximum capacity. This alarm should not normally occur when no other congestion alarms are asserted. The alarm severity depends upon the amount of the UDRBE auto enrollment task event queue being used:

- Minor when utilization exceeds 60%.
- Major when utilization exceeds 80%.
- Critical when utilization exceeds 95%.

Severity: Major (Minor, Critical)

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0

OID: UdrbeAutoEnrollmentTaskEventQueueUtilization

Recovery:

1. Determine whether the traffic rate of the system is too high. If yes, reduce traffic rate to clear alarm. The alarm clears when utilization falls below these thresholds:
 - <= 50% (clears Minor alarm)
 - <= 70% (clears Major alarm)
 - <= 90% (clears Critical alarm)
2. Examine the Alarm log to determine whether there are any problems preventing the UDRBE application task from processing messages from its auto enrollment task event queue.
3. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13359 - Failed to register as a Routed Service user with ComAgent**Alarm Type:** UDR**Description:** The ComAgent Routed Service user registration failed. The UDRBE cannot use the ComAgent Routed Service for notification operations.**Severity:** Critical**Instance:** N/A**HA Score:** Failed**Auto Clear Seconds:** 0**OID:** UdrbeComAgentRoutedServiceRegistrationFailure**Recovery:**

1. Determine whether the configured ComAgent Routed Service name is correct.
2. Determine whether the ComAgent Routed Service is not configured in ComAgent.
3. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13360 - The UDRBE Process CPU Utilization is approaching its maximum capacity**Alarm Type:** UDR**Description:** The UDRBE Process CPU Utilization is approaching its maximum capacity. The alarm severity depends on the amount of CPU being used:

- Minor when utilization exceeds 60%.
- Major when utilization exceeds 66%.
- Critical when utilization exceeds 72%.

Severity: Minor (Major, Critical)**Instance:** N/A**HA Score:** Normal**Auto Clear Seconds:** 0**OID:** UdrbeProcCpuThresh**Recovery:**

1. Reduce the traffic rate to clear the alarm. The alarm clears when utilization falls below these thresholds:
 - <= 57% (clears Minor alarm)
 - <= 63% (clears Major alarm)
 - <= 69% (clears Critical alarm)
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13361 - UDRBE Process Memory Utilization Threshold Exceeded**Alarm Type:** UDR

Description: The UDRBE Process Memory Utilization is approaching its maximum capacity. The alarm severity depends on the amount of memory being used:

- Minor when utilization exceeds 75%
- Major when utilization exceeds 80%
- Critical when utilization exceeds 85%

Severity: Minor (Major, Critical)

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0

OID: UdrbeProcMemThresh

Recovery:

1. Reduce the traffic rate to clear the alarm. The alarm clears when utilization falls below these thresholds:
 - <= 73% (clears Minor alarm)
 - <= 78% (clears Major alarm)
 - <= 83% (clears Critical alarm)
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13367 - UDRBE System Memory Utilization Threshold Exceeded

Alarm Type: UDR

Description: System memory utilization threshold exceeded. Create and update provisioning, as well as auto-enrolled operations, are suspended when critical threshold is reached. Note that update requests for existing subscribers, triggered by a PUR message on the Sh interface, will continue to be processed, regardless of alarm status. The alarm severity depends on the amount of memory being used:

- Minor when system memory utilization exceeds 80%
- Major when system memory utilization exceeds 83%
- Critical when system memory utilization exceeds 85%

Severity: Minor (Major, Critical)

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0

OID: UdrbeSysMemThresh

Recovery:

1. The alarm clears when system memory utilization falls below these thresholds:
 - <= 79% (clears Minor alarm)
 - <= 82% (clears Major alarm)
 - <= 84% (clears Critical alarm)

2. Contact [My Oracle Support \(MOS\)](#).

13403 - Diameter Application ComAgent Event Queue Utilization

Alarm Type: UDRF

Description: Diameter Application's ComAgent Event Queue utilization is approaching its maximum capacity. This alarm appears when congestion occurs, and the severity of the alarm depends on how much queue capacity is being used:

- Minor when utilization $\geq 60\%$
- Major when utilization $\geq 80\%$
- Critical when utilization $> 95\%$

Severity: Minor (Major, Critical)

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0

OID: DiameterAppComAgentEventQueueUtilization

Recovery:

1. Reduce the traffic rate to clear the alarm after all pending stack events are processed by UDRBE. The alarm clears when the UDRFE application's ComAgent Event Queue utilization falls below the maximum threshold:
 - $\leq 50\%$ (clears Minor alarm)
 - $\leq 70\%$ (clears Major alarm)
 - $\leq 90\%$ (clears Critical alarm)
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13404 - ComAgent Registration Failure

Alarm Type: UDRF

Description: COM Agent routing service registration or service notification registration failed. UDRFE cannot use the COM Agent service for database operations.

Severity: Critical

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0

OID: SprfeComAgentRegistrationFailure

Recovery:

1. Restart the UDR process to clear the alarm:
 - a) At the command line on the MP server, enter `pm.set off udr` (to stop process).
 - b) At the command line on the MP server, enter `pm.set on udr` (to restart process).

2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13405 - Diameter Application Unavailable

Alarm Type: UDRF

Description: Diameter Application is unable to process any messages because it is Unavailable. A Diameter Application can become unavailable when:

- The Admin State is set to Disable with the forced shutdown option.
- The Admin State is set to Disable with the graceful shutdown option and the graceful shutdown timer expires.
- It reaches Congestion Level 3.

Severity: Critical

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0

OID: DiameterApplicationUnavailable

Recovery:

1. Display and monitor the Diameter Application status by selecting **Diameter > Maintenance > Applications** in the SO GUI. Verify that the Admin State variable is set as expected.
2. A Diameter Application operation status becomes Unavailable when either the Admin State is set to Disable with the Forced Shutdown option, or the Admin State is set to Disable with the Graceful Shutdown option and the Graceful Shutdown timer expires.
3. A Diameter Application can also become Unavailable when it reaches Congestion Level 3, if enabled. **Note:** This alarm will NOT be raised when the Diameter application is shutting down gracefully or application is in Disabled state. Only the Diameter Application operational status will be changed to Unavailable.
4. Check the Event History logs for additional DIAM events or alarms for this MP server.
5. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13406 - Diameter Application Degraded

Alarm Type: UDRF

Description: Unable to forward requests to the Diameter Application because it is Degraded. A Diameter Application becomes degraded when the Diameter Application becomes congested (if enabled).

Severity: Major

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0

OID: DiameterApplicationDegraded

Recovery:

1. Display and monitor the Diameter Application status by selecting **Diameter > Maintenance > Applications** in the SO GUI. Verify that the Admin State variable is set as expected.

A Diameter Application operation status becomes Unavailable when either the Admin State is set to Disable with the Forced Shutdown option, or the Admin State is set to Disable with the Graceful Shutdown option and the Graceful Shutdown timer expires.

A Diameter Application can also become Unavailable when it reaches Congestion Level 3 (if enabled). **Note:** This alarm will NOT be raised when the Diameter application is shutting down gracefully or application is in Disabled state. Only the Diameter Application operational status will be changed to Unavailable.

2. Check the Event History logs for additional DIAM events or alarms for this MP server.
3. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13407 - Diameter Application Request Task Queue Utilization

Alarm Type: UDRF

Description: The Diameter Application Request Task Queue Utilization is approaching its maximum capacity. The severity of the alarm depends on how much request queue capacity is being used:

- Minor when utilization exceeds 60%
- Major when utilization exceeds 80%
- Critical when utilization exceeds 95%

Severity: Minor (Major, Critical)

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0

OID: DiameterAppRequestTaskQueueUtilization

Recovery:

1. Display and monitor the Diameter Application status by selecting **Diameter > Maintenance > Applications** in the SO GUI. Verify that the Admin State variable is set as expected.

The Diameter 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 misconfigured and is sending too much traffic to the Diameter Application. Verify the configuration by selecting **Diameter > Maintenance > Application Routing Rules**.
3. If no additional congestion alarms are asserted, the Diameter 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, contact [My Oracle Support \(MOS\)](#).

13408 - Diameter Application Answer Task Queue Utilization

Alarm Type: UDRF

Description: The Diameter Application Answer Task Queue utilization is approaching its maximum capacity. The severity of the alarm depends on how much answer queue capacity is being used:

- Minor when utilization exceeds 60%
- Major when utilization exceeds 80%
- Critical when utilization exceeds 95%

Severity: Minor (Major, Critical)

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0

OID: DiameterAppAnswerTaskQueueUtilization

Recovery:

1. Application Routing might be misconfigured and is sending too much traffic to the Diameter Application. Verify the configuration by selecting **Diameter > Maintenance > Application Routing Rules** in the SO GUI.
2. If no additional congestion alarms are asserted, the Diameter Application Task might be experiencing a problem that is preventing it from processing messages from its Answer Message Queue. Examine the Alarm log in **Alarms & Events**.
3. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13409 - Diameter Application Ingress Message Rate Exceeded

Alarm Type: UDRF

Description: This alarm is raised from an MP based on the ingress rate thresholds listed on the **Diameter > Configuration > DA-MPs > MP Profiles** page. The specific parameters that correspond to this alarm are RxSprfeMsgRateMinorSet, RxSprfeMsgRateMinorClear, RxSprfeMsgRateMajorSet, RxSprfeMsgRateMajorClear, RxSprfeMsgRateCriticalSet, RxSprfeMsgRateCriticalClear. This alarm is raised and cleared by individual MPs.

Severity: Major

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0

OID: DiameterAppIngressMessageRateExceeded

Recovery:

1. Application Routing might be misconfigured and is sending too much traffic to the Diameter Application. Verify the configuration by selecting **Diameter > Maintenance > Application Routing Rules** in the SO GUI.
2. There may be an insufficient number of MPs configured to handle the network load. Monitor the ingress traffic rate of each MP by selecting **Main Menu > Status & Manage > KPIs**. If MPs are in a congestion state, then the offered load to the server site is exceeding its capacity.
3. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13410 - UDR Process CPU Utilization Threshold Exceeded

Alarm Type: UDR

Description: The UDR Process CPU Utilization is approaching its maximum capacity. The alarm severity depends on the amount of CPU being used:

- Minor when utilization exceeds 60%.
- Major when utilization exceeds 66%.
- Critical when utilization exceeds 72%.

Severity: Minor (Major, Critical)

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0

OID: UdrbeProcCpuThresh

Recovery:

1. Reduce the traffic rate to clear the alarm. The alarm clears when utilization falls below these thresholds:
 - <= 57% (clears Minor alarm)
 - <= 63% (clears Major alarm)
 - <= 69% (clears Critical alarm)
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13451 - Message Decoding Failure

Alarm Type: UDRF

Description: Message received was rejected because of a decoding failure. Decoding Failures can include: bad message/parameter length received; answer decode failure; diameter AVP not present; AVP occurs too many times in a Diameter message.

Severity: Info

Instance: N/A

HA Score: Normal

Auto Clear Seconds: N/A

OID: SprfeMessageDecodingFailure

Recovery:

1. Determine the cause of the decoding failure and resend the message.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13452 - Unknown Command Code

Alarm Type: UDRF

Description: Either the message could not be routed because the Diameter Command Code in the ingress Request message is not supported (the Diameter Command Code is not UDR, PUR or SNR); or the response could not be sent because the Diameter Command Code in the response message is not supported (the Diameter Command Code is not PNA).

Severity: Info

Instance: N/A

HA Score: Normal

Auto Clear Seconds: N/A

OID: SprfeUnknownCommandCode

Recovery:

1. Resolve the command code and resend the message.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13453 - ComAgent Error

Alarm Type: UDRF

Description: This event occurs when the UDRFE application receives a ComAgent Error (timeout, congestion, or queue full) for the sent SprEvent. This event is raised when:

- 1) UDRFE fails to send a notifyAck event to ComAgent
- 2) UDRFE fails to send a UDR message to ComAgent
- 3) An internal client error or internal server error occurs
- 4) A timeout, congestion, or queue full error occurs

Severity: Info

Instance: N/A

HA Score: Normal

Auto Clear Seconds: N/A

OID: SprfeDbConnectionError

Recovery:

1. Verify that the ComAgent connection status between UDR and UDRBE is up.
2. If the connection is not up or is degraded, restart the UDR process on MP and the UDRBE process on NO.
 - a) At the command line on the MP server, enter **pm.set off udr** (to stop process).
 - b) At the command line on the MP server, enter **pm.set on udr** (to restart process).
 - c) At the command line on the NO server, enter **pm.set off udrbe** (to stop process).
 - d) At the command line on the NO server, enter **pm.set on udrbe** (to restart process).
3. If necessary, slow down the traffic rate to bring back the connection state to Available.
4. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13456 - Invalid Service Indication

Alarm Type: UDRF

Description: Message received from a peer that was rejected because no register ID could be mapped because the service indication received in the request is not supported by ESPR application (RegisterID not found for a service Indication).

Severity: Info

Instance: N/A

HA Score: Normal

Auto Clear Seconds: N/A

OID: SprfeInvalidServiceIndication

Recovery:

1. Fix the service indication and resend the message.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13457 - Orphan Response Event Received from UDRBE

Alarm Type: UDRF

Description: A response event was received from UDRBE for which no pending request transaction existed, resulting in the response event being discarded.

Severity: Info

Instance: N/A

HA Score: Normal

Auto Clear Seconds: N/A

OID: SprfeOrphanResponseEventRcvdFromUdrbe

Recovery:

No action required.

13458 - Orphan Response Event Received from peer

Alarm Type: UDRF

Description: An Answer message was received from a peer for whom no pending request transaction existed, resulting in the Answer message being discarded.

Severity: Info

Instance: N/A

HA Score: Normal

Auto Clear Seconds: N/A

OID: SprfeOrphanResponseRcvdFromPeer

Recovery:

No action required.

13459 - Sending Client Invalid

Alarm Type: UDRF

Description: This event is generated each time a client sends a request that it is not permitted to send. This could be because:

- The client was not present in the Subscribing Client Permissions table.
- The client was present in the Subscribing Client Permissions table, but was not authorized to send the Sh Operation (PUR, SNR or UDR).
- The DataReference value supplied was not 0 (i.e. RepositoryData).

Severity: Info

Instance: N/A

HA Score: Normal

Auto Clear Seconds: N/A

OID: SprfeSendingClientInvalid

Recovery:

1. Determine the issue and resend the request.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13460 - Client Not Subscribed

Alarm Type: UDRF

Description: This event is generated each time a PNR is sent to an AS, and the AS responds with a PNA, indicating that it was not subscribed to receive notifications for the subscriber to which it was notified.

Severity: Info

Instance: N/A

HA Score: Normal

Auto Clear Seconds: N/A

OID: SprfeClientNotSubscribed

Recovery:

1. Subscribe the application server to received notifications and resend the PNR.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13461 - Invalid Parameter Value

Alarm Type: UDRF

Description: This event is generated each time an AS sends PUR, SNR, or UDR that contains a parameter that fails application validation. Validation failures include:

- Diameter AVP value is invalid.
- The requested operation is not allowed.

Severity: Info

Instance: N/A

HA Score: Normal

Auto Clear Seconds: N/A

OID: SprfeInvalidParameterValue

Recovery:

1. Determine why the application failed validation and resend the request.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

13462 - PNR Create Failed

Alarm Type: UDRF

Description: This event is generated each time a PNR request fails to be created or the origin host/realm or destination host/realm could not be determined.

Severity: Info

Instance: N/A

HA Score: Normal

Auto Clear Seconds: N/A

OID: SprfePnrCreateFailed

Recovery:

No action required.

13463 - Diameter Application Enabled

Alarm Type: UDRF

Description: This event is generated when Diameter's Application Admin State variable is changed to enabled.

Severity: Info

Instance: N/A

HA Score: Normal

Auto Clear Seconds: N/A

OID: DiameterAppEnabled

Recovery:

No action required.

13464 - Diameter Application Disabled

Alarm Type: UDRF

Description: This event is generated when Diameter's Application Admin State variable is changed to **disabled**.

Severity: Info

Instance: N/A

HA Score: Normal

Auto Clear Seconds: N/A

OID: DiameterAppDisabled

Recovery:

No action required.

19800-19899 - Communication Agent

This section provides information and recovery procedures for Communication Agent (ComAgent) alarms and events, ranging from 19800 - 19899, and lists the types of alarms and events that can occur on the system. All events have a severity of Info.

Alarms and events are recorded in a database log table. Currently active alarms can be viewed from the Launch Alarms Dashboard GUI menu option. The alarms and events log can be viewed from the **Alarms & Events > View History** page.

19800 - Communication Agent Connection Down

Alarm Group: CAF

Description: This alarm indicates that a Communication Agent is unable to establish transport connections with one or more other servers, and this may indicate that applications on the local server are unable to communicate with all of their peers. Generally this alarm is asserted when a server or the IP network is undergoing maintenance or when a connection has been manually disabled.

Severity: Major

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: cAFConnectionDownNotify

Recovery:

1. Use **Main Menu > Alarms & Events > View History** to find additional information about the alarm.

The information can be found by locating the row with a sequence number that matches the active alarm sequence number and viewing the Additional Info column.

2. Check the event history logs at **Main Menu > Alarms & Events > View History** for additional Communication Agent events or alarms from this MP server.
3. Use **Main Menu > Communication Agent > Maintenance > Connection Status** to determine which connections on the server have abnormal status.

4. If the connection is manually disabled, then no further action is necessary.
5. Verify that the remote server is not under maintenance.
6. Verify that IP network connectivity exists between the two connection end-points.
7. Verify that the connection's local IP address and port number are configured on remote Node.
8. Verify that the Application Process using Communication Agent plug-in is running on both ends.
9. Verify that the connection's remote IP address and port correctly identify remote's listening port.
10. Contact [My Oracle Support \(MOS\)](#) for assistance.

19801 - Communication Agent Connection Locally Blocked

Alarm Group: CAF

Description: This alarm indicates that one or more Communication Agent connections have been administratively blocked at the server asserting the alarm, and this is generally done as part of a maintenance procedure. A connection that is blocked cannot be used by applications to communicate with other servers, and so this alarm may indicate that applications are unable to communicate with their expected set of peers.

Note: It is normal to have this alarm if the connection is in the Blocked administrative state on the near-side of the connection.

Severity: Minor

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: cAFConnLocalBlockedNotify

Recovery:

This alarm is cleared when:

- **Locally UNBLOCKed:** An Admin Action to locally UNBLOCK the service connection and no other connection is locally blocked.
 - **Deleted:** The MP Server/Connection is deleted.
 - **Failed:** The Connection is terminated, due to Admin Disable action or Heartbeat failure or remote end initiated disconnection or any other reason.
1. Use **Main Menu > Alarms & Events > View History** to find additional information about the alarm.

The information can be found by locating the row with a sequence number that matches the active alarm sequence number and viewing the Additional Info column.
 2. Check the event history logs at **Main Menu > Alarms & Events > View History** for additional Communication Agent events or alarms from this MP server.
 3. Use **Main Menu > Communication Agent > Maintenance > Connection Status** to determine which connections on the server have abnormal status.
 4. If the expected set of connections is locally blocked, then no further action is necessary.
 5. To remove a the local block condition for a connection, use the **Main Menu > Communication Agent > Maintenance > Connection Status** screen and click the 'Enable' action button for the desired connection.

6. Contact [My Oracle Support \(MOS\)](#) for assistance.

19802 - Communication Agent Connection Remotely Blocked

Alarm Group: CAF

Description: This alarm indicates that one or more Communication Agent connections have been administratively blocked at a remote server connected to the server, and this is generally done as part of a maintenance procedure. A connection that is blocked cannot be used by applications to communicate with other servers, and so this alarm may indicate that applications are unable to communicate with their expected set of peers.

Note: It is normal to have this alarm if the connection is in the Blocked administrative state on the far-side of the connection.

Severity: Minor

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: cAFConnRemoteBlockedNotify

Recovery:

This alarm is cleared when:

- **Locally UNBLOCKed:** An Admin Action to locally UNBLOCK the service connection and no other connection is locally blocked.
- **Deleted:** The MP Server/Connection is deleted.
- **Failed:** The Connection is terminated, due to Admin Disable action or Heartbeat failure or remote end initiated disconnection or any other reason.

1. Use **Main Menu > Alarms & Events > View History** to find additional information about the alarm.

The information can be found by locating the row with a sequence number that matches the active alarm sequence number and viewing the Additional Info column.

2. Check the event history logs at **Main Menu > Alarms & Events > View History** for additional Communication Agent events or alarms from this MP server.
3. Use **Main Menu > Communication Agent > Maintenance > Connection Status** to determine which connections on the server have abnormal status.
4. If the expected set of connections is locally blocked, then no further action is necessary.
5. To remove a the local block condition for a connection, use the **Main Menu > Communication Agent > Maintenance > Connection Status** screen and click the 'Enable' action button for the desired connection.
6. Contact [My Oracle Support \(MOS\)](#) for assistance.

19803 - Communication Agent stack event queue utilization

Alarm Group: CAF

Description: The percent utilization of the Communication Agent Task stack queue is approaching defined threshold capacity. If this problem persists and the queue reaches above the defined threshold utilization, the new StackEvents (Query/Response/Relay) messages for the Task can be discarded, based on the StackEvent priority and Application's Global Congestion Threshold Enforcement Mode.

Severity: Minor, Major, Critical

Instance: <ComAgent StackTask Name>

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: cAFQueueUtilNotify

Recovery:

1. Use **Main Menu > Alarms & Events** to examine the alarm log.

An IP network or Adjacent node problem may exist preventing from transmitting messages into the network at the same pace that messages are being received from the network. The Task thread may be experiencing a problem preventing it from processing events from its event queue. Contact [My Oracle Support \(MOS\)](#) for assistance.

2. Use **Main Menu > Status & Control > KPIs** to monitor the ingress traffic rate of each MP.

Each MP in the server site should be receiving approximately the same ingress transaction per second.

Contact [My Oracle Support \(MOS\)](#) for assistance.

3. If the MP ingres rate is approximately the same, there may be an insufficient number of MPs configured to handle the network traffic load.

If all MPs are in a congestion state then the offered load to the server site is exceeding its capacity.

Contact [My Oracle Support \(MOS\)](#) for assistance.

19804 - Communication Agent configured connection waiting for remote client to establish connection

Alarm Group: CAF

Description: Communication Agent configured connection waiting for remote client to establish connection. This alarm indicates that a Communication Agent is waiting for one or more far-end client MPs to initiate transport connections. Generally this alarm is asserted when a client MP or the IP network is undergoing maintenance or when a connection has been manually disabled at a client MP.

Note: It is normal to have this auto-clearing connection alarm for the remote server connections that configured manually in "Client" mode, but are not yet available for processing traffic.

Severity: Minor

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 300 (5 min)

OID: cAFClientConnWaitNotify

Recovery:

The alarm is cleared when a "server" connection exits the "forming" state and no other connection having "server" connect mode is in the "forming" state or the auto-clear time-out occurs.

- The MP Server/Connection is deleted
- When connection is moved to TotallyBlocked/RemotelyBlocked/InService state from Aligning
- Auto Clear
- Connection is disabled

The alarm is cleared only for remote server connections that are configured manually in "Client" mode. This mode is used to listen for connection requests from configured remote clients.

- The MP Server/Connection is deleted
- When connection is moved to TotallyBlocked/RemotelyBlocked/InService state from Aligning
- Auto Clear
- Connection is disabled

1. Find additional information for the alarm in **Main Menu > Alarms & Events > View History** by locating the row with a sequence number that matches the active alarm sequence number and viewing the Additional Info column.
2. Check the event history logs at **Main Menu > Alarms & Events > View History** for additional Communication Agent events or alarms from this MP server.
3. Check **Main Menu > Communication Agent > Maintenance > Connection Status** to determine which connections on the server have abnormal status.
4. Verify that the remote server is not under maintenance.
5. If the connection is manually disabled at the client MP, and it is expected to be disabled, then no further action is necessary.
6. If the connection has been manually disabled at the client MP, but it is not supposed to be disabled, then enable the connection by clicking on the 'Enable' action button on the Connection Status screen.
7. Verify that IP network connectivity exists between the two connection end-points.
8. Verify that the connection's local IP address and port number are configured on remote client MP.
9. Verify that the Application Process using Communication Agent plug-in is running on both ends.
10. Verify that the connection's remote IP address and port correctly identify remote's listening port.
11. Contact [My Oracle Support \(MOS\)](#) for assistance.

19805 - Communication Agent Failed To Align Connection

Alarm Group: CAF

Description: The Communication Agent failed to align connection. This alarm indicates that Communication Agent has established one or more transport connections with servers that are running incompatible versions of software, and so Communication Agent is unable to complete the alignment of the connection. A connection that fails alignment cannot be used by applications to communicate with other servers, and so this alarm may indicate that applications are unable to communicate with their expected set of peers.

Severity: Major

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: cAFConnAlignFailedNotify

Recovery:

1. If the connection administrative action is set to 'disable', the alarm is cleared. No further action is necessary.
2. Check the event history logs at **Main Menu > Alarms & Events > View History** for additional Communication Agent events or alarms from this MP server.
3. Find additional information for the alarm in **Main Menu > Alarms & Events > View History** by locating the row with a sequence number that matches the active alarm sequence number and viewing the Additional Info column.
4. Check the event history logs at **Main Menu > Alarms & Events > View History** for additional Communication Agent events or alarms from this MP server.
5. Check **Main Menu > Communication Agent > Maintenance > Connection Status** to determine which connections on the server have abnormal status.

For each connection reporting 'Aligning' connection status, determine the servers that are endpoints, and verify that the correct software is installed on each server. If incorrect software is present, then server maintenance may be required.

6. Contact [My Oracle Support \(MOS\)](#) for assistance.

19806 - Communication Agent CommMessage mempool utilization

Alarm Group: CAF

Description: The percent utilization of the Communication Agent CommMessage mempool is approaching defined threshold capacity.

The percent utilization of the Communication Agent internal resource pool (CommMessage) is approaching its defined capacity. If this problem persists and the usage reaches 100% utilization, ComAgent will allocate the CommMessage objects from the heap. This should not impact the functionality, but may impact performance and/or latency.

Severity: Critical, Major, Minor

Instance: <ComAgent Process Name>

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: cAFPpoolResUtilNotify

Recovery:

1. Use **Main Menu > Alarms & Events** to examine the alarm log.

An IP network or Adjacent node problem may exist preventing from transmitting messages into the network at the same pace that messages are being received from the network. The Task thread may be experiencing a problem preventing it from processing events from its internal resource queue. Contact [My Oracle Support \(MOS\)](#) for assistance.

2. Use **Main Menu > Status & Control > KPIs** to monitor the ingress traffic rate of each MP.

Each MP in the server site should be receiving approximately the same ingress transaction per second.

Contact [My Oracle Support \(MOS\)](#) for assistance.

3. If the MP ingres rate is approximately the same, there may be an insufficient number of MPs configured to handle the network traffic load.

If all MPs are in a congestion state then the ingres rate to the server site is exceeding its capacity.

Contact [My Oracle Support \(MOS\)](#) for assistance.

19807 - Communication Agent User Data FIFO Queue utilization

Alarm Group: CAF

Description: The percent utilization of the Communication Agent User Data FIFO Queue is approaching defined threshold capacity. If this problem persists and the queue reaches above the defined threshold utilization, the new StackEvents (Query/Response/Relay) messages for the Task can be discarded, based on the StackEvent priority and Application's Global Congestion Threshold Enforcement Mode.

Severity: Minor, Major, Critical

Instance: <ComAgent StackTask Name>

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: cAFUserDataFIFOUtilNotify

Recovery:

1. An IP network or Adjacent node problem may exist preventing from transmitting messages into the network at the same pace that messages are being received from the network.
2. Use **Main Menu > Alarms & Events** to determine if the ComAgent worker thread may be experiencing a problem preventing it from processing events from User Data FIFO queue.

Contact [My Oracle Support \(MOS\)](#) for assistance.

3. The mis-configuration of Adjacent Node IP routing may result in too much traffic being distributed to the MP. The ingress traffic rate of each MP can be monitored from **Main Menu > Status & Control > KPIs**.

Each MP in the server site should be receiving approximately the same ingress transaction per second.

Contact [My Oracle Support \(MOS\)](#) for assistance.

4. 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 > Status & Control > KPIs**.

If all MPs are in a congestion state then the offered load to the server site is exceeding its capacity.

Contact [My Oracle Support \(MOS\)](#) for assistance.

19808 - Communication Agent Connection FIFO Queue utilization

Alarm Group: CAF

Description: The percent utilization of the Communication Agent Connection FIFO Queue is approaching defined threshold capacity. If this problem persists and the queue reaches above the defined threshold utilization, the new ComAgent internal Connection Management StackEvents messages can be discarded based on Application's Global Congestion Threshold Enforcement Mode.

Severity: Minor, Major, Critical

Instance: <ComAgent StackTask Name>

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: cAFMxFIFOUtilNotify

Recovery:

1. An IP network or Adjacent node problem may exist preventing from transmitting messages into the network at the same pace that messages are being received from the network.
2. Use **Main Menu > Alarms & Events** to determine if the ComAgent worker thread may be experiencing a problem preventing it from processing events from ComAgent Connection FIFO queue.

Contact [My Oracle Support \(MOS\)](#) for assistance.

3. The mis-configuration of Adjacent Node IP routing may result in too much traffic being distributed to the MP. The ingress traffic rate of each MP can be monitored from **Main Menu > Status & Control > KPIs**.

Each MP in the server site should be receiving approximately the same ingress transaction per second.

Contact [My Oracle Support \(MOS\)](#) for assistance.

4. 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 > Status & Control > KPIs**.

If all MPs are in a congestion state then the offered load to the server site is exceeding its capacity.

Contact [My Oracle Support \(MOS\)](#) for assistance.

19810 - Communication Agent Egress Message Discarded

Event Type: CAF

Description: Communication Agent Egress Message Discarded.

Severity: Info

Instance: < Remotelp >

HA Score: Normal

Throttle Seconds: 10

OID: cAFEEventEgressMessageDiscardedNotify

Recovery:

1. View the Event AddlInfo column.
Message is being discarded due to one of the reasons specified.
2. If it's a persistent condition with the status of one of the Communication Agent Configuration Managed Object then resolve the underlying issue with the Managed Object.
3. If the event is raised due to software condition, It's an indication that the Communication Agent Process may be experiencing problems.
4. Use **Main Menu > Alarms & Events** and examine the alarm log.
5. Contact [My Oracle Support \(MOS\)](#) for assistance.

19811 - Communication Agent Ingress Message Discarded

Event Type: CAF

Description: Communication Agent Ingress Message Discarded.

Severity: Info

Instance: < Remotelp >

HA Score: Normal

Throttle Seconds: 10

OID: cAFEventIngressMessageDiscardedNotify

Recovery:

1. View the Event AddlInfo column.
Message is being discarded due to one of the reasons specified.
2. If it's a persistent condition with the status of one of the Communication Agent Configuration Managed Object then resolve the underlying issue with the Managed Object.
3. If the event is raised due to software condition, it is an indication that the Communication Agent Process may be experiencing problems.
4. Use **Main Menu > Alarms & Events** and examine the alarm log.
5. Contact [My Oracle Support \(MOS\)](#) for assistance.

19814 - Communication Agent Peer has not responded to heartbeat

Event Type: CAF

Description: Communication Agent Peer has not responded to heartbeat.

Severity: Info

Instance: < Remotelp >

HA Score: Normal

Throttle Seconds: 0 (zero)

OID: cAFEventHeartbeatMissedNotify

Recovery:

1. Check the configuration of managed objects and resolve any configuration issues with the Managed Object or hosting nodes.

This message may be due to network condition or latency or due to setup issues.

2. If the event is raised due to software condition, It's an indication that the Communication Agent Process may be experiencing problems.
3. Use **Main Menu > Alarms & Events** and examine the alarm log.
4. Contact [My Oracle Support \(MOS\)](#) for assistance.

19816 - Communication Agent Connection State Changed

Event Type: CAF

Description: Communication Agent Connection State Changed.

Severity: Info

Instance: < RemoteIp >

HA Score: Normal

Throttle Seconds: 0 (zero)

OID: cAFEventConnectionStateChangeNotify

Recovery:

1. Use **Main Menu > Alarms & Events** and examine the alarm log.
This Event is a log of connection state change.
2. Contact [My Oracle Support \(MOS\)](#) for assistance.

19817 - Communication Agent DB Responder detected a change in configurable control option parameter

Event Type: CAF

Description: Communication Agent DB Responder detected a change in configurable control option parameter.

Severity: Info

Instance: N/A

HA Score: Normal

Throttle Seconds: 0 (zero)

OID: cAFEventComAgtConfigParamChangeNotify

Recovery:

This event is an indication that Communication Agent detected a control parameter change. The change will be applied to applicable software component. If the change is applied on the GUI, the appropriate GUI action is logged in security logs. If the action is not performed from GUI and the control parameter is changed, this event indicates the executed change.

1. Use **Main Menu > Alarms & Events** and examine the alarm log.
2. Use **Main Menu > Security Log** and examine the alarm log.
3. If the event shows up in **Main Menu > Alarms & Events**, without the corresponding GUI security-log in **Main Menu > Security Log**. Contact [My Oracle Support \(MOS\)](#) for assistance.

19818 - Communication Agent DataEvent Mempool utilization

Event Type: CAF

Description: The percent utilization of the Communication Agent DataEvent Mempool is approaching defined threshold capacity.

Severity: Minor, Major, Critical

Instance: <ComAgent Process>

HA Score: Normal

Throttle Seconds: 86400

OID: cAFDataEvPoolResUtilNotify

Recovery:

If the problem persists, contact [My Oracle Support \(MOS\)](#).

19820 - Communication Agent Routed Service Unavailable

Alarm Group: CAF

Description: This alarm indicates that all connections of all connection groups associated with a Routed Service are unavailable. This generally occurs when far-end servers have been removed from service by maintenance actions. This can also occur if all of the Routed Service's connections have been either disabled or blocked.

Severity: Major

Instance: <RoutedServiceName>

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: cAFRSUnavailNotify

Recovery:

1. Use **Main Menu > Communication Agent > Maintenance > Routed Service Status** to view the connection groups and connections associated with the Routed Service.
2. Use **Main Menu > Communication Agent > Maintenance > Connection Status** to view the the reasons why connections are unavailable.
3. Use **Main Menu > Status & Manage > Server** to confirm that the far-end servers have an application state of enabled, and that their subsystems are operating normally.

It is possible that this alarm results from conditions at the far-end servers connected to the server that asserted this alarm.

4. Contact [My Oracle Support \(MOS\)](#) for assistance.

19821 - Communication Agent Routed Service Degraded

Alarm Group: CAF

Description: This alarm indicates that some, but not all, connections are unavailable in the connection group being used by a Communication Agent Routed Service to route messages. The result is that the server that posted this alarm is not load-balancing traffic across all of the connections configured in the connection group.

Severity: Major

Instance: <ServiceName>

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: cAFRSDegradedNotify

Recovery:

1. Use **Main Menu > Communication Agent > Maintenance > Routed Service Status** to view the connection groups and connections associated with the Routed Service.
2. Use **Main Menu > Communication Agent > Maintenance > Connection Status** to view the the reasons why connections are unavailable.
3. Use **Main Menu > Status & Manage > Server** to confirm that the far-end servers have an application state of enabled, and that their subsystems are operating normally.

It is possible that this alarm results from conditions at the far-end servers connected to the server that asserted this alarm.

4. Contact [My Oracle Support \(MOS\)](#) for assistance.

19822 - Communication Agent Routed Service Congested

Alarm Group: CAF

Description: This alarm indicates that a routed service is load-balancing traffic across all connections in a connection group, but all of the connections are experiencing congestion. Messages may be discarded due to congestion.

Severity: Major

Instance: <ServiceName>

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: cAFRSCongestedNotify

Recovery:

1. Use **Main Menu > Communication Agent > Maintenance > Routed Service Status** to view the connection groups and connections associated with the Routed Service.
2. Use **Main Menu > Communication Agent > Maintenance > Connection Status** to view the the are congested and the degree to which they are congested.
3. Check the far-end of the congested connections in order to further isolate the cause of congestion.

If the far-end servers are overloaded, then it is possible that the system is being presented a load that exceeds its engineered capacity. If this is the case, then either the load must be reduced, or additional capacity must be added.

4. Contact [My Oracle Support \(MOS\)](#) for assistance.

19823 - Communication Agent Routed Service Using Low-Priority Connection Group

Alarm Group: CAF

Description: Communication Agent routed service is routing traffic using a connection group that has a lower-priority than another connection group.

Severity: Major

Instance: <ServiceName>

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: cAFRSUsingLowPriConnGrpNotify

Recovery:

1. Use **Main Menu > Communication Agent > Maintenance > Routed Service Status** to view the connection groups and connections associated with the Routed Service.
2. Use **Main Menu > Communication Agent > Maintenance > Connection Status** to view the the reasons why connections are unavailable.
3. Use **Main Menu > Status & Manage > Server** to confirm that the far-end servers have an application state of enabled, and that their subsystems are operating normally.

It is possible that this alarm results from conditions at the far-end servers connected to the server that asserted this alarm.

4. Contact [My Oracle Support \(MOS\)](#) for assistance.

19824 - Communication Agent Pending Transaction Utilization

Alarm Group: CAF

Description: The ComAgent Reliable Transfer Function is approaching or exceeding its engineered reliable transaction handling capacity.

Severity: Minor, Major, Critical

Instance: n/a (ComAgent process)

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: cAFTransUtilNotify

Recovery:

1. Use **Main Menu > Status & Control > Server Status** to view MP server status.

2. Remote server is slow in responding to outstanding transaction with correlation resource in-use. The mis-configuration of ComAgent Server/Client routing may result in too much traffic being distributed to affected connection for MP.
3. There may be an insufficient number of Server Application MPs configured to handle the internal traffic load. If server application MPs are in a congestion state then the offered load to the server site is exceeding its capacity.
4. Use **Main Menu > Alarm & Events** and examine the alarm log.
The system may be experiencing network problems.
The Communication Agent Process may be experiencing problems.
5. Contact [My Oracle Support \(MOS\)](#) for assistance.

19825 - Communication Agent Transaction Failure Rate

Alarm Group: CAF

Description: The number of failed transactions during the sampling period has exceeded configured thresholds.

Severity: Minor, Major, Critical

Instance: <ServiceName>

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: cAFTransFailRateNotify

Recovery:

1. Use **Main Menu > Status & Control > Server Status** to view MP server status.
2. Remote server is slow in responding to outstanding transaction with correlation resource in-use. The mis-configuration of ComAgent Server/Client routing may result in too much traffic being distributed to affected connection for MP.
3. There may be an insufficient number of Server Application MPs configured to handle the internal traffic load. If server application MPs are in a congestion state then the offered load to the server site is exceeding its capacity.
4. Use **Main Menu > Alarm & Events** and examine the alarm log.
The system may be experiencing network problems.
The Communication Agent Process may be experiencing problems.
5. Contact [My Oracle Support \(MOS\)](#) for assistance.

19826 - Communication Agent Connection Congested

Alarm Group: CAF

Description: This alarm indicates that Communication Agent is experiencing congestion in communication between two servers, and this can be caused by a server becoming overloaded or by network problems between two servers.

Severity: Major

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: cAFConnCongestedNotify

Recovery:

1. Find additional information for the alarm in **Main Menu > Alarms & Events > View History** by locating the row with a sequence number that matches the active alarm sequence number and viewing the Additional Info column.
2. Check the event history logs at **Main Menu > Alarms & Events > View History** for additional Communication Agent events or alarms from this MP server.
3. Check **Main Menu > Communication Agent > Maintenance > Connection Status** to determine which connections on the server have abnormal status.
4. If the Remote MP Overload Level (OL) > 0 then determine why the remote server is congested.
 - a) Verify that the remote server is not under maintenance.
 - b) Examine the remote's CPU utilization.
 - c) Examine the remote's current alarms.
5. If the local server's Transport Congestion Level (TCL) > 0 then determine why the connection is not handling the load.
 - a) The remote may be overload by traffic from other MPs.
 - b) The local server may be trying to send too much traffic to the remote.
 - c) The IP connectivity may be impaired.
6. Contact [My Oracle Support \(MOS\)](#) for assistance.

19830 - Communication Agent Service Registration State Change

Event Type: CAF

Description: Communication Agent Service Registration State Change.

Severity: Info

Instance: <ServiceName>

HA Score: Normal

Throttle Seconds: 0 (zero)

OID: cAFEventComAgtSvcRegChangedNotify

Recovery:

This event is a log of normal application startup and shutdown activity. It may provide aid during trouble shooting when compared to other events in the log.

19831 - Communication Agent Service Operational State Changed

Event Type: CAF

Description: Communication Agent Service Operational State Changed.

Severity: Info

Instance: <ServiceName>

HA Score: Normal

Throttle Seconds: 0 (zero)

OID: cAFEEventComAgtSvcOpStateChangedNotify

Recovery:

1. This event indicates that a Communication Agent service changed operational state, and typically results from maintenance actions.
A service can also change state due to server overload.
2. If the state change is unexpected, then Contact [My Oracle Support \(MOS\)](#) for assistance.

19832 - Communication Agent Reliable Transaction Failed

Event Type: CAF

Description: Failed transaction between servers result from normal maintenance actions, overload conditions, software failures, or equipment failures.

Severity: Info

Instance: <ServiceName>, <RemoteIP> | <null>

- If serviceID is InvalidServiceID, then <ServiceName> is "EventTransfer".
- If <ServiceName> is "EventTransfer", then include <RemoteIP>.
- If serviceID is unknown, then <ServiceName> is null.

HA Score: Normal

Throttle Seconds: 10

OID: cAFEEventComAgtTransFailedNotify

Recovery:

1. Use **Main Menu > Communication Agent > Maintenance > Connection Status** to determine if the local server is unable to communicate with another server or if servers have become overloaded.
2. Check the server's KPIs and the **Main Menu > Communication Agent > Maintenance > Connection Status** to trouble-shoot the cause of server overload.
3. Check the **Main Menu > Communication Agent > Maintenance > HA Status** that corresponds to the ServiceID in the event instance to trouble-shoot the operation of the service.
4. If the event cannot be explained by maintenance actions, then Contact [My Oracle Support \(MOS\)](#) for assistance.

19833 - Communication Agent Service Egress Message Discarded

Event Type: CAF

Description: Communication Agent Service Egress Message Discarded.

Severity: Info

Instance: <ServiceName>, <RemoteIP> | <null>

- If serviceID is unknown, then <ServiceName> is null.

HA Score: Normal

Throttle Seconds: 10

OID: cAFEEventRoutingFailedNotify

Recovery:

1. View the Event AddlInfo column.
Message is being discarded due to one of the reasons specified.
2. If it's a persistent condition with the status of one of the Communication Agent Configuration Managed Object then resolve the underlying issue with the Managed Object.
3. If the event is raised due to software condition, It's an indication that the Communication Agent Process may be experiencing problems.
4. Use **Main Menu > Alarms & Events** and examine the alarm log.
5. Contact [My Oracle Support \(MOS\)](#) for assistance.

19842 - Communication Agent Resource-Provider Registered

Event Type: CAF

Description: Communication Agent Resource-Provider Registered.

Severity: Info

Instance: <ResourceName>

HA Score: Normal

Throttle Seconds: 0 (zero)

OID: cAFEEventResourceProviderRegisteredNotify

Recovery:

No action required.

19843 - Communication Agent Resource-Provider Resource State Changed

Event Type: CAF

Description: Communication Agent Resource-Provider Resource State Changed.

Severity: Info

Instance: <ProviderServerName>: <ResourceName>

HA Score: Normal

Throttle Seconds: 1

OID: cAFEEventResourceStateChangeNotify

Recovery:

No action required.

19844 - Communication Agent Resource-Provider Stale Status Received

Event Type: CAF

Description: Communication Agent Resource-Provider Stale Status Received.

Severity: Info

Instance: <ProviderServerName>: <ResourceName>

HA Score: Normal

Throttle Seconds: 10

OID: cAFEventStaleHBPacketNotify

Recovery:

If this event is occurring frequently then check the ComAgent maintenance screens for other anomalies and to troubleshoot further.

19845 - Communication Agent Resource-Provider Deregistered

Event Type: CAF

Description: Communication Agent Resource-Provider Deregistered.

Severity: Info

Instance: <ResourceName>

HA Score: Normal

Throttle Seconds: 0 (zero)

OID: cAFEventResourceProviderDeRegisteredNotify

Recovery:

No action required.

19846 - Communication Agent Resource Degraded

Alarm Group: CAF

Description: Communication Agent Resource Degraded. A local application is using the resource, identified in the alarm, and the access to the resource is impaired. Some of the resource providers are either unavailable and/or congested.

Severity: Major

Instance: <ResourceName>

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: cAFResourceCongestedNotify

Recovery:

1. Use **Main Menu > Communication Agent > Maintenance > HA Services Status** to determine which sub-resources are unavailable or degraded for the server that asserted the alarm.
2. Use **Main Menu > Communication Agent > Maintenance > Connection Status** to determine if connections have failed or have congested.
3. Contact [My Oracle Support \(MOS\)](#) for assistance.

19847 - Communication Agent Resource Unavailable**Alarm Group:** CAF

Description: Communication Agent Resource Unavailable. A local application needs to use a ComAgent resource, but the resource is unavailable. The resource can be unavailable if the local server has no ComAgent connections to servers providing the resource or no servers host active instances of the resource's sub-resources.

Severity: Major**Instance:** <ResourceName>**HA Score:** Normal**Auto Clear Seconds:** 0 (zero)**OID:** cAFResourceUnavailNotify**Recovery:** Check the Communication Agent Connection Status maintenance screen

1. Use **Main Menu > Communication Agent > Maintenance > Connection Status** to verify that the local server is connected to the expected servers.

If the local server reports unavailable connections, then take actions to troubleshoot the cause of the connection failures.

2. If the ComAgent connections are InService, use **Main Menu > Communication Agent > Maintenance > HA Services Status** to determine which servers are providing the resource.

If no servers are providing the resource, then the most likely reason is that maintenance actions have been taken that have removed from service the application that provides the concerned resource.

3. Contact [My Oracle Support \(MOS\)](#) for assistance.

19848 - Communication Agent Resource Error**Alarm Group:** CAF

Description: Communication Agent Resource Error. Two sets of servers are using incompatible configurations for a ComAgent resource.

Severity: Minor**Instance:** <ResourceName>**HA Score:** Normal**Auto Clear Seconds:** 50

OID: cAFResourceErrorNotify

Recovery:

1. Use **Main Menu > Communication Agent > Maintenance > HA Services Status** to determine which sets of servers are incompatible.

Check the incompatible servers to verify that they are operating normally and are running the expected versions of software.

2. Contact [My Oracle Support \(MOS\)](#) for assistance.

19850 - Communication Agent Resource-User Registered

Event Type: CAF

Description: Communication Agent Resource-User Registered.

Severity: Info

Instance: <ResourceName>

HA Score: Normal

Throttle Seconds: 0 (zero)

OID: cAFEEventResourceUserRegisteredNotify

Recovery:

No action required.

19851 - Communication Agent Resource-User Deregistered

Event Type: CAF

Description: Communication Agent Resource-User Deregistered.

Severity: Info

Instance: <ResourceName>

HA Score: Normal

Throttle Seconds: 0 (zero)

OID: cAFEEventResourceUserDeRegisteredNotify

Recovery:

No action required.

19852 - Communication Agent Resource Routing State Changed

Event Type: CAF

Description: Communication Agent Resource Routing State Changed.

Severity: Info

Instance: <ResourceName>

HA Score: Normal

Throttle Seconds: 1

OID: cAFEventResourceRoutingStateNotify

Recovery:

No action required.

19853 - Communication Agent Resource Egress Message Discarded

Event Type: CAF

Description: Communication Agent Resource Egress Message Discarded.

Severity: Info

Instance: <ResourceName>: <SubResourceID>

Note: If the resource is unknown, then <ResourceName> is the ResourceID converted to text. The <SubResourceID> is an integer converted to text, regardless of whether it is known or unknown.

HA Score: Normal

Throttle Seconds: 10

OID: cAFEventHaEgressMessageDiscardedNotify

Recovery:

1. Message is being discarded due to one of the reasons specified in Event AddInfo.

If the condition is persistent with the status of one of the ComAgent Configuration Managed Objects there is an underlying issue with the Managed Object.

2. Use **Main Menu > Alarms & Events** and examine the alarm log for ComAgent Process problems.
3. Contact [My Oracle Support \(MOS\)](#) for assistance.

19854 - Communication Agent Resource-Provider Tracking Table Audit Results

Event Type: CAF

Description: Communication Agent Resource-Provider Tracking Table Audit Results. This event is generated when a Resource Provider Tracking Table (RPTT) entry with Status equal to Auditing is replaced with a new status (null, Active, Standby, Spare, OOS, etc) and there are no other RPTT entries, for this specific Resource/SR, with Status equal to Auditing.

Severity: Info

Instance: None

HA Score: Normal

Throttle Seconds: 0 (zero)

OID: cAFEventHaRPTTAuditResultNotify

Recovery:

No action required.

19855 - Communication Agent Resource Has Multiple Actives**Alarm Group:** CAF

Description: This alarm indicates a possible IP network disruption that has caused more than one Resource Provider to become Active. The server that asserted this alarm expects there to be only one active Resource Provider server for the Resource, but instead it is seeing more than one. During this condition the server may be sending commands to the wrong Resource Provider. This may affect applications such as CPA, PDRA.

Severity: Major**Instance:** <ResourceName>**HA Score:** Normal**Auto Clear Seconds:** 0 (zero)**OID:** cAFMultipleActivesNotify**Recovery:**

1. Use **Main Menu > Communication Agent > Maintenance > HA Services Status** to determine which Resource Provider servers are announcing 'Active' status for the Resource.
2. Investigate possible IP network isolation between these Resource Provider servers.
3. Contact [My Oracle Support \(MOS\)](#) for assistance.

19856 - Communication Agent Service Provider Registration State Changed**Alarm Type:** CAF

Description: The Communication Agent service provider registration state changed.

Severity: Info**Instance:** <ServiceName>**HA Score:** Normal**Auto Clear Seconds:** 0**OID:** cAFEEventSvcProvRegStateChangedNotify**Recovery:**

No action required.

19857 - Communication Agent Service Provider Operational State Changed**Event Type:** CAF

Description: The Communication Agent Service Provider Operational State has Changed

Severity: Info**Instance:** <ServiceName>**HA Score:** Normal**Throttle Seconds:** 1

OID: cAFEEventSvcProvOpStateChangedNotify

Recovery:

1. This event indicates that a ComAgent service provider changed operational state, and typically results from maintenance actions. A service can also change state due to overload.
2. If the state change is unexpected, contact [My Oracle Support \(MOS\)](#).

19860 - Communication Agent Configuration Daemon Table Monitoring Failure

Alarm Group: CAF

Description: This alarm indicates that a Communication Agent Configuration Daemon has encountered an error that prevents it from properly using server topology configuration data to configure automatic connections for the Communication Agents on MPs, and this may prevent applications on MPs from communicating.

Severity: Critical

Instance: None

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: cAFTableMonitorFailureNotify

Recovery:

1. Use **Main Menu > Alarms & Events > View History** to find additional information about the alarm.

The information can be found by locating the row with a sequence number that matches the active alarm sequence number and viewing the Additional Info column.

2. Check the event history logs at **Main Menu > Alarms & Events > View History** for additional Communication Agent events or alarms from this MP server.
3. If conditions do not permit a forced failover of the active NOAM, then contact [My Oracle Support \(MOS\)](#) for assistance.
4. If conditions permit, then initiate a failover of active NOAM.
This causes the Communication Agent Configuration Daemon to exit on the originally-active NOAM and to start on the newly-active NOAM.

5. After NOAM failover completes, verify that the alarm has cleared.
6. If the alarm has not cleared, then Contact [My Oracle Support \(MOS\)](#) for assistance.

19861 - Communication Agent Configuration Daemon Script Failure

Alarm Group: CAF

Description: This alarm indicates that a Communication Agent Configuration Daemon has encountered an error that prevents it from properly using server topology configuration data to configure automatic connections for the Communication Agents on MPs, and this may prevent applications on MPs from communicating.

Severity: Critical

Instance: None

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: cAFScriptFailureNotify

Recovery:

1. Use **Main Menu > Alarms & Events > View History** to find additional information about the alarm.

The information can be found by locating the row with a sequence number that matches the active alarm sequence number and viewing the Additional Info column.

2. Check the event history logs at **Main Menu > Alarms & Events > View History** for additional Communication Agent events or alarms from this server.
3. If conditions do not permit a forced failover of the active NOAM, then contact [My Oracle Support \(MOS\)](#) for assistance.
4. If conditions permit, then initiate a failover of active NOAM.
This causes the Communication Agent Configuration Daemon to exit on the originally-active NOAM and to start on the newly-active NOAM.
5. After NOAM failover completes, verify that the alarm has cleared.
6. If the alarm has not cleared, then Contact [My Oracle Support \(MOS\)](#) for assistance.

19862 - Communication Agent Ingress Stack Event Rate

Alarm Group: CAF

Description: The Communication Agent Ingress Stack Event Rate is approaching its defined threshold capacity.

Severity:

- Minor - if exceeding 100K on Gen8 hardware, 75k on other hardware
- Major - if exceeding 110K on Gen8 hardware, 80k on other hardware
- Critical - if exceeding 120K on Gen8 hardware, 84k on other hardware

Instance: <ServiceName>

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: cAFIngressRateNotify

Recovery:

1. This alarm indicates that a server is overrunning its defined processing capacity. If any of the defined threshold onset levels are exceeded, Communication Agent will discard comparatively low priority messages. Check the configuration, routing, and deployment mode capacity.
2. Contact [My Oracle Support \(MOS\)](#) for further assistance.

19863 - Communication Agent Max Connections Limit In Connection Group Reached

Event Group: CAF

Description: The maximum number of connections per connection group limit has been reached.

Severity: Info

Instance: <Connection group name>

HA Score: Normal

Throttle Seconds: 86400

OID: cAFComAgentMaxConnsInConnGrpNotify

Recovery:

1. This event indicates that a connection group has already reached its maximum limit and no more connections can be added to the group. Determine what is preventing potential connections from being added to the connection group.
2. Contact [My Oracle Support \(MOS\)](#) for further assistance.

19864 - ComAgent Successfully Set Host Server Hardware Profile

Event Group: CAF

Description: ComAgent successfully set the host server hardware profile.

Severity: Info

Instance: None

HA Score: Normal

Throttle Seconds: 0 (zero)

OID: cAFEEventSuccessSetHostServerHWProfileNotify

Recovery:

1. This event indicates that all TPS controlling parameter values are successfully set for the host server hardware profile.
2. If needed, contact [My Oracle Support \(MOS\)](#).

19865 - ComAgent Failed to Set Host Server Hardware Profile

Event Group: CAF

Description: ComAgent failed to set the host server hardware profile.

Severity: Info

Instance: None

HA Score: Normal

Throttle Seconds: 0 (zero)

OID: cAFEEventFailToSetHostServerHWProfileNotify

Recovery:

1. This event indicates that there is a failure in applying default hardware settings for ComAgent TPS controlling parameters. When default settings also fail to apply, then the factory values will be used for the TPS controlling parameters.
2. If needed, contact [My Oracle Support \(MOS\)](#).

19900-19999 - EXG Stack

This section provides information and recovery procedures for EXG Stack alarms, ranging from 19900-19999.

Alarms and events are recorded in a database log table. Currently active alarms can be viewed from the Launch Alarms Dashboard GUI menu option. The alarms and events log can be viewed from the **Alarms & Events > View History** page.

19900 - Process CPU Utilization

Alarm Group: STK

Description: The Process, which is responsible for handling all Signaling traffic, is approaching or exceeding its engineered traffic handling capacity.

Severity: Critical, Major, Minor

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: dbcProcessCpuUtilizationNotify

Recovery:

1. Use **Main Menu > Status & Control > KPIs** to monitor the ingress traffic rate of each MP.
 - The mis-configuration of Server/Client 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.
 - There may be an insufficient number of MPs configured to handle the network traffic load. If all MPs are in a congestion state then the traffic load to the server site is exceeding its capacity.
2. Use **Main Menu > Alarms & Events** to examine the alarm log.
Contact [My Oracle Support \(MOS\)](#) for assistance.

19901 - CFG-DB Validation Error

Alarm Group: STK

Description: A minor database validation error was detected on the MP server during an update. MP internal database is now out of sync with the configuration database. Subsequent database operations on the MP are ALLOWED.

Severity: Major

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: dbcCfgDbValidationErrorNotify

Recovery:

An unexpected condition has occurred while performing a database update, but database updates are still enabled.

Contact [My Oracle Support \(MOS\)](#) for assistance.

19902 - CFG-DB Update Failure

Alarm Group: STK

Description: A critical database validation error was detected on the MP server during an update. MP internal database is now out of sync with the configuration database. Subsequent database operations on the MP are DISABLED.

Severity: Critical

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: dbcCfgDbUpdateFailureNotify

Recovery:

An unexpected condition has occurred while performing a database update and database updates are disabled.

Contact [My Oracle Support \(MOS\)](#) for assistance.

19903 - CFG-DB post-update Error

Alarm Group: STK

Description: A minor database validation error was detected on the MP server after a database update. MP internal database is still in sync with the configuration database. Subsequent database operations on the MP are ALLOWED.

Severity: Major

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: dbcCfgDbPostUpdateErrorNotify

Recovery:

An unexpected condition has occurred while performing a database update, but database updates are still enabled.

Contact [My Oracle Support \(MOS\)](#) for assistance.

19904 - CFG-DB post-update Failure

Alarm Group: STK

Description: A critical database validation error was detected on the MP server after a database update. MP internal database is still in sync with the configuration database. Subsequent database operations on the MP are DISABLED.

Severity: Critical

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: dbcCfgDbPostFailureNotify

Recovery:

An unexpected condition has occurred while performing a database update and database updates are disabled.

Contact [My Oracle Support \(MOS\)](#) for assistance.

19905 - Measurement Initialization Failure

Alarm Group: STK

Description: A measurement object failed to initialize.

Severity: Critical

Instance: <measTagName>

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: dbcMeasurementInitializationFailureNotify

Recovery:

Measurement subsystem initialization has failed for the specified measurement.

Contact [My Oracle Support \(MOS\)](#) for assistance.

19910 - Message Discarded at Test Connection

Event Type: DIAG

Description: Normal traffic is being discarded because it is routed to an egress Test Connection. An egress Test Connection is given a normal message to be transmitted.

Severity: Major

Instance: <Connection name>

HA Score: Normal

Throttle Seconds: 86400

OID: dbcNormalMessageDiscardedNotify

Recovery:

1. Update routing rules to exclude Test connections from being used for routing.
Normal traffic should be received and sent on non-test connections.
2. Change the hostname of the peer connected to the test connection.
The hostname of the peer connected to the test connection may be the destination host for the incoming normal traffic.

19911 - Test message discarded

Event Type: DIAG

Description: Test message is given to a non-test connection to be transmitted.

Severity: Info

Instance: <Connection name>

HA Score: Normal

Throttle Seconds: 5

OID: dbcDiagnosticMessageDiscardNotify

Recovery:

- Update routing rules to exclude Test messages from being routed to non-test connection.
- Test messages should be received and sent only on test connections.

22000-22999 - Diameter

This section provides information and recovery procedures for Diameter alarms and events, ranging from 22000 - 22999, and lists the types of alarms and events that can occur on the system. All events have a severity of Info.

Alarms and events are recorded in a database log table. Currently active alarms can be viewed from the Launch Alarms Dashboard GUI menu option. The alarms and events log can be viewed from the **Alarms & Events > View History** page.

22001 - Message Decoding Failure

Event Type: DIAM

Description: A message received from a peer was rejected because of a decoding failure. Decoding failures can include missing mandatory parameters. A Diameter message was received either without the mandatory Destination-Realm AVP or, while parsing the message, the message content was inconsistent with the Message Length in the message header.

Severity: Info

Instance: <TransConnName>

HA Score: Normal

Throttle Seconds: 10

OID: eagleXgDiameterIngressMsgRejectedDecodingFailureNotify

Recovery:

These protocol violations are 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 (identified by the Peer Name) and cannot be fixed using the application.

22002 - Peer Routing Rules with Same Priority

Event Type: DIAM

Description: A peer routing table search with a received Request message found more than one highest priority Peer Routing Rule match. The system selected the first rule found but it is not guaranteed that the same rule will be selected in the future. It is recommended that Peer Routing Rules be unique for the same type of messages to avoid non-deterministic routing results.

Severity: Info

Instance: <MPName>

HA Score: Normal

Throttle Seconds: 10

OID: eagleXgDiameterPeerRoutingTableRulesSamePriorityNotify

Recovery:

Modify one of the Peer Routing Rule Priorities using the **Diameter > Configuration > Peer Routing Rules** GUI page.

22003 - Application ID Mismatch with Peer

Event Type: DIAM

Description: While attempting to route a request message to a peer, a peer's transport connection was bypassed because the peer did not support the Application ID for that transport connection.

Severity: Info

Instance: <MPName>

HA Score: Normal

Throttle Seconds: 10

OID: eagleXgDiameterApplicationIdMismatchWithPeerNotify

Recovery:

1. The system's peer routing table may be using a Route List containing a peer which does not support the Application ID or the list of Application IDs supported by the peer on each connection may not be the same. The list of Application IDs that the peer supports on each connection can be viewed as follows:
 - a) Navigate to the GUI page: **Diameter > Maintenance > Connections**
 - b) Locate the relevant Peer Node and check the supported Application IDs.
2. If Application IDs are not the same for each connection (but should be) the Application ID for any connection can be refreshed by:
 - a) Navigate to the GUI page: **Diameter > Maintenance > Connections**
 - b) Locate the relevant **Connection**
 - c) Disable the **Connection**
 - d) Enable the **Connection**
3. The Diameter Node which originated the message (identified by the Origin-Host AVP) could be configured incorrectly and the application is trying to address a node which doesn't support the Application ID. This cannot be fixed using this application.
4. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22004 - Maximum pending transactions allowed exceeded**Event Type:** DIAM

Description: Routing attempted to select an egress transport connection to forward a message but the maximum number of allowed pending transactions queued on the connection has been reached.

Severity: Info**Instance:** <TransConnName>**HA Score:** Normal**Throttle Seconds:** 10**OID:** eagleXgDiameterMaxPendingTxnsPerConnExceededNotify**Recovery:**

The maximum number of pending transactions for each connection is set to a system-wide default value. If this event is occurring frequently enough for a particular connection then the maximum value may need to be increased. Contact [My Oracle Support \(MOS\)](#) for assistance.

22005 - No peer routing rule found**Event Type:** DIAM

Description: A message not addressed to a peer (either Destination-Host AVP was absent or Destination-Host AVP was present but was not a peer's FQDN) could not be routed because no Peer Routing Rules matched the message.

Severity: Info**Instance:** <MPName>**HA Score:** Normal

Throttle Seconds: 10

OID: eagleXgDiameterNoPrtRuleNotify

Recovery:

1. Either the message was incorrectly routed to this node or additional Peer Routing Rules need to be added. Existing Peer Routing Rules can be viewed and updated using **Diameter > Configuration > Peer Routing Rules** page.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22006 - Forwarding Loop Detected

Event Type: DIAM

Description: The Ingress Request message received was previously processed by the local node as determined from the Route-Record AVPs received in the message.

Severity: Info

Instance: <PeerName>

HA Score: Normal

Throttle Seconds: 10

OID: eagleXgDiameterForwardingLoopDetectedNotify

Recovery:

1. An ingress Request message was rejected because message looping was detected. In general, the forwarding node should not send a message to a peer which has already processed the message (it should examine the Route-Record AVPs prior to message forwarding). If this type of error is occurring frequently, then the forwarding node is most likely incorrectly routing the message and the issue cannot be fixed using this application.
2. If Path Topology Hiding is activated and Protected Network Node's Route-Records are obscured with PseudoNodeFQDN, then inter-network ingress message loop detection could reject the message if same Request message is routed back to DEA. If this type of error is occurring, then the forwarding node is most likely mis-routing the message back to DEA.
3. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22007 - Inconsistent Application ID Lists from a Peer

Event Type: DIAM

Description: The list of Application IDs supported by a peer during the Diameter Capabilities Exchange procedure on a particular transport connection is not identical to one of the list of Application IDs received from the peer over a different available transport connection to that peer.

Severity: Info

Instance: <PeerName>

HA Score: Normal

Throttle Seconds: 10

OID: eagleXgDiameterSupportedAppIdsInconsistentNotify

Recovery:

1. A peer with multiple transport connections has established a connection and provided a list of supported Application IDs which does not match a previously established connection. This could prevent Request messages from being routed uniformly over the peer's transport connections because the decision to route a message containing an Application ID is based upon the list of Application IDs supported on each transport connection. The list of Application IDs that the peer supports on each connection can be viewed as follows:
 - a) Navigate to **Diameter > Maintenance > Connections**.
 - b) Locate the relevant Peer Node and check the supported Application IDs.
2. If Application IDs are not the same for each connection (but should be) the Application ID for any connection can be refreshed by:
 - a) Navigate to **Diameter > Maintenance > Connections**.
 - b) Locate the relevant Connection.
 - c) Disable the Connection.
 - d) Enable the Connection.
3. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22008 - Orphan Answer Response Received**Event Type:** DIAM

Description: An Answer response was received for which no pending request transaction existed, resulting in the Answer message being discarded. When a Request message is forwarded the system saves a pending transaction, which contains the routing information for the Answer response. The pending transaction is abandoned if an Answer response is not received in a timely fashion.

Severity: Info**Instance:** <TransConnName>**HA Score:** Normal**Throttle Seconds:** 10**OID:** eagleXgDiameterOrphanAnswerResponseReceivedNotify**Recovery:**

If this event is occurring frequently, the transaction timers may be set too low. The timer values can be viewed and/or modified using the **Diameter > Configuration > System Options** page.

22009 - Application Routing Rules with Same Priority**Event Type:** DIAM

Description: An application routing table search with a received Request message found more than one highest priority application routing rule match. At least two application routing rules with the same priority matched an ingress Request message. The system selected the first application routing rule found.

Severity: Info**Instance:** <MPName>

HA Score: Normal

Throttle Seconds: 10

OID: eagleXgDiameterApplicationRoutingTableRulesSamePriorityNotify

Recovery:

1. It is recommended that application routing rules be unique for the same type of messages to avoid unexpected routing results. Peer routing rule priorities can be modified using **Diameter > Configuration > Application Routing Rules** page.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22010 - Specified DAS Route List not provisioned

Event Type: DIAM

Description: The DAS Route List specified by the message copy trigger point is not provisioned.

Severity: Info

Instance: <RouteListId>

HA Score: Normal

Throttle Seconds: 10

OID: eagleXgDiameterSpecifiedDasRouteListNotProvisionedNotify

Recovery:

1. Provisioning is incorrect/misconfigured. Verify provisioning and provision/correct provisioning.
2. If this problem persists, contact [My Oracle Support \(MOS\)](#) for assistance.

22012 - Specified M CCS not provisioned

Event Type: DIAM

Description: The Message copy CfgSet attached to the original message by the trigger point is not provisioned

Severity: Info

Instance: <M CCS>

HA Score: Normal

Throttle Seconds: 10

OID: eagleXgDiameterSpecifiedM CCSNotProvisionedNotify

Recovery:

1. Verify the configured value of M CCS with the trigger point.
2. Verify the Message Copy CfgSet (M CCS) provisioning is properly configured.
3. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22013 - DAS Peer Number of Retransmits Exceeded for Copy

Event Type: DIAM

Description: The configured number of Message Copy retransmits has been exceeded for the DAS Peer.

Severity: Info

Instance: <MCCS>

HA Score: Normal

Throttle Seconds: 10

OID: eagleXgDiameterNumberOfRetransmitsExceededToDasNotify

Recovery:

1. Verify the configured value of 'Max Retransmission Attempts'
2. Verify local provisioning to connections to intended DAS peer server(s) are in service and no network issues in path(s) to intended DAS peer server(s) exist.
3. Verify DAS peer provisioning to insure proper configuration.
4. If the problem persists, contact [My Oracle Support \(MOS\)](#) for assistance.

22014 - No DAS Route List specified

Alarm Group: DIAM

Description: No valid DAS Route List was specified in the Message Copy Config Set.

Severity: Info

Instance: <RouteListId>

HA Score: Normal

Throttle Seconds: 10

OID: eagleXgDiameterNoDasRouteListSpecifiedNotify

Recovery:

Contact [My Oracle Support \(MOS\)](#) for further assistance.

22015 - Connection Operational Status Inconsistency May Exist

Event Type: DIAM

Description: DSR was unable to update the Operational Status and Operation Reason attributes for a transport connection on the OAM.

Severity: Info

Instance: TransConnName

HA Score: Normal

Throttle Seconds: 0 (zero)

OID: eagleXgDiameterOperationalStatusInconsistencyNotify

Recovery:

1. Use **Main Menu > Diameter > Maintenance > Connections** to view the Operational Status and Operation Reason attributes for a Connection.

The Operational Status and Operation Reason attributes for a Connection on the OAM may be temporarily out of date with the values on DSR.

This occurs when an internal event queue size has been exceeded. This should rarely occur and the inconsistency should be cleared when the Connection's "Remote Busy State" changes again.

2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22016 - Peer Node Alarm Aggregation Threshold

Alarm Group: DIAM

Description: This alarm occurs when there are a 'Critical' number of Peer Node alarms for a single Network Element.

Note: The Alarm Thresholds are configurable using the "Alarm Threshold Options" tab on the **Main Menu > Diameter > Configuration > System Options** screen.

Severity: Critical

Instance: <NetworkElement>

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterPeerNodeUnavailableThresholdReachedNotify

Recovery:

1. Use **Main Menu > Diameter > Maintenance > Peer Nodes** to monitor Peer status.
2. Verify that IP network connectivity exists between the MP server and the adjacent servers.
3. Check the event history logs for additional DIAM events or alarms from this MP server.
4. Verify that the peer is not under maintenance.
5. Contact [My Oracle Support \(MOS\)](#) for assistance.

22017 - Route List Alarm Aggregation Threshold

Alarm Group: DIAM

Description: This alarm occurs when there are a 'Critical' number of Route List alarms for the Network Element.

Note: The Alarm Thresholds are configurable using the "Alarm Threshold Options" tab on the **Main Menu > Diameter > Configuration > System Options** screen.

Severity: Critical

Instance: <NetworkElement>

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterRouteListUnavailableThresholdReachedNotify

Recovery:

1. Use **Main Menu > Diameter > Maintenance > Route Lists** to monitor Route List status.
2. Verify that IP network connectivity exists between the MP server and the peers.
3. Check the event history logs for additional DIAM events or alarms from this MP server.
4. Verify that the peers in the Route List are not under maintenance.
5. Contact [My Oracle Support \(MOS\)](#) for assistance.

22018 - Maintenance Leader HA Notification to go Active

Alarm Group: DIAM

Description: This alarm occurs when a DA-MP has received a notification from HA that the Maintenance Leader resource should transition to the Active role.

Severity: Info

Instance: <MP Node ID>

HA Score: Normal

Throttle Seconds: 1

OID: eagleXgDiameterDaMpLeaderGoActiveNotificationNotify

Recovery:

No action necessary.

22019 - Maintenance Leader HA Notification to go OOS

Alarm Group: DIAM

Description: This alarm occurs when a DA-MP has received a notification from HA that the Maintenance Leader resource should transition to the OOS role.

Instance: <MP Node ID>

Severity: Info

HA Score: Normal

Throttle Seconds: 1

OID: eagleXgDiameterDaMpLeaderGoOOSNotificationNotify

Recovery:

No action necessary.

22020 - Copy Message size exceeded the system limit

Event Type: DIAM

Description: The size of the message being copied to the DAS exceeded the maximum message size set system wide.

Severity: Info

Instance: <DA-MP>

HA Score: Normal

Throttle Seconds: 10

OID: eagleXgDiameterCopyMessageSizeExceededNotify

Recovery:

1. Verify the size of the Request and Answer messages and see it exceeds the system set message size. Use **Main > Diameter > Configuration > Route Lists** to correct provisioning.
2. Review provisioning and correct provisioning and see whether answers also needed to copy. Requests and answers may be copied to DAS.
3. If this problem persists, contact [My Oracle Support \(MOS\)](#) for assistance.

22021 - Debug Routing Info AVP Enabled

Event Type: DIAM

Description: Debug Routing Info AVP is enabled.

Severity: Minor

Instance: None

HA Score: Normal

Throttle Seconds: 86400

OID: eagleXgDiameterDebugRoutingInfoAvpEnabledNotify

Recovery:

1. Change the IncludeRoutingInfoAvp parameter to *no* in the DpiOption table on the NO for a 2-tier system or on the SO for a 3-tier system.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22051 - Peer Unavailable

Alarm Group: DIAM

Description: Unable to access the Diameter Peer because all of the transport connections are Down.

Severity: Critical

Instance: <PeerName> (of the Peer which failed)

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterPeerUnavailableNotify

Recovery:

1. Peer status can be monitored from **Diameter > Maintenance > Peer Nodes**.
2. Verify that IP network connectivity exists between the MP server and the adjacent servers.
3. Check the event history logs for additional DIAM events or alarms from this MP server.
4. Verify that the peer is not under maintenance.
5. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22052 - Peer Degraded**Alarm Group:** DIAM

Description: The peer has some available connections, but less than its minimum connection capacity. Continued routing to this peer may cause congestion or other overload conditions.

Severity: Major**Instance:** <PeerName> (of the Peer which is degraded)**HA Score:** Normal**Auto Clear Seconds:** 0 (zero)**OID:** eagleXgDiameterPeerDegradedNotify**Recovery:**

1. Peer status can be monitored from **Diameter > Maintenance > Peer Nodes**.
2. Verify that IP network connectivity exists between the MP server and the adjacent servers.
3. Check the event history logs for additional DIAM events or alarms from this MP server.
4. Verify that the peer is not under maintenance.
5. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22053 - Route List Unavailable**Alarm Group:** DIAM

Description: The Route List is Unavailable. A Route List becomes Unavailable when all of its peers become Unavailable and a Peer becomes Unavailable when all of its transport connections become Unavailable.

If a Transport Connection is configured for Initiate mode, the Network Element will periodically attempt to automatically recover the connection if its Admin State is Enabled. If the Transport Connection is configured for Responder-Only mode, the peer will be responsible for re-establishing the transport connection.

Severity: Critical**Instance:** <RouteListName> (of the Route List which failed)**HA Score:** Normal**Auto Clear Seconds:** 0 (zero)**OID:** eagleXgDiameterRouteListUnavailableNotify**Recovery:**

1. Route List status can be monitored from **Diameter > Maintenance > Route Lists**.
2. Verify that IP network connectivity exists between the MP server and the peers.
3. Check the event history logs for additional DIAM events or alarms from this MP server.
4. Verify that the peers in the Route List not under maintenance.
5. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22054 - Route List Degraded

Alarm Group: DIAM

Description: The Route List's Operational Status has changed to Degraded because the capacity of the Route List's Active Route Group has dropped below the Route List's configured minimum capacity. There are two potential causes:

1. One or more of the Route List's peers become Unavailable. A Peer becomes Unavailable when all of its transport connections become Unavailable. If a Transport Connection is configured for Initiate mode, the Network Element will periodically attempt to automatically recover the connection if its Admin State is Enabled. If the Transport Connection is configured for Responder-Only mode, the peer will be responsible for re-establishing the transport connection.
2. The Route Groups within the Route List may not have been configured with sufficient capacity to meet the Route List's configured minimum capacity.

Severity: Major

Instance: <RouteListName> (of the Route List which is degraded)

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterRouteListDegradedNotify

Recovery:

1. Route List status and configured minimum capacity can be monitored from **Diameter > Maintenance > Route Lists**.
2. Verify that IP network connectivity exists between the MP server and the peers.
3. Check the event history logs for additional DIAM events or alarms from this MP server.
4. Verify that the peers in the Route List not under maintenance.
5. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22055 - Non-Preferred Route Group in Use

Alarm Group: DIAM

Description: The application has started to utilize a Route Group other than the highest priority Route Group to route Request messages for a Route List because the highest priority Route Group specified for that Route List has either become Unavailable or its capacity has dropped below the minimum capacity configured for the Route List while a lower priority Route Group has more capacity.

The preferred Route Group (i.e., with highest priority) is demoted from the Active Route Group to a Standby Route Group when a peer failure occurs causing the Route Group's Operational Status to change to Unavailable or Degraded. A Route Group becomes Degraded when its capacity has dropped

below Route List's configured minimum capacity. A Route Group becomes Unavailable when all of its peers have an Operational Status of Unavailable or Degraded.

A Peer becomes Unavailable when all of its transport connections become Unavailable. If a Transport Connection is configured for Initiate mode, the Network Element will periodically attempt to automatically recover the connection if its Admin State is Enabled. If the Transport Connection is configured for Responder-Only mode, the peer will be responsible for re-establishing the transport connection.

Severity: Minor

Instance: <RouteListName> (of the concerned Route List)

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterNonPreferredRouteGroupInUseNotify

Recovery:

1. Route List status and configured minimum capacity can be monitored from **Diameter > Maintenance > Route Lists**.
2. Verify that IP network connectivity exists between the MP server and the peers.
3. Check the event history logs for additional DIAM events or alarms from this MP server.
4. Verify that the adjacent server is not under maintenance.
5. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22056 - Connection Admin State Inconsistency Exists

Alarm Group: DIAM

Description: An operator request to change the Admin State of a transport connection was not completely processed due to an internal error. The admin state is either disabled from an egress routing perspective but the connection could not be taken out of service or the admin state is enabled from an egress routing perspective but the connection is not in service.

Severity: Major

Instance: <TransConnName>

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterConnAdminStateInconsistencyNotify

Recovery:

1. If the transport connection's Admin State is Disabled but the transport connection was not taken out of service due to an internal error do the following actions to correct the failure:
 - a) Enable the connection via the following GUI menu: **Diameter > Maintenance > Connections**
 - b) Wait for this alarm to clear.
 - c) Disable the connection via the following GUI menu: **Diameter > Maintenance > Connections**
2. If the transport connection's Admin State is Enabled but the transport connection was not taken out of service due to an internal error do the following actions to correct the failure:
 - a) Disable the connection via the following **Diameter > Maintenance > Connections**

- b) Wait for this alarm to clear.
 - c) Enable the connection via the following GUI menu: **Diameter > Maintenance > Connections**
3. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22057 - ETG Rate Limit Degraded

Alarm Group: DIAM

Description: The ETG Rate Limit has exceeded the defined threshold

Severity: Major

Instance: <ETGName>

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterEtgRateLimitDegradedNotify

Recovery:

1. Check the configuration in **Main Menu > Diameter > Configuration > Egress Throttle Groups** to determine if the Maximum Configured rate is too low.
2. Check the Egress Message Rate at **Main Menu > Diameter > Maintenance > Egress Throttle Groups** and **Main Menu > Diameter > Maintenance > Connections** to determine if the sending Peers/Connections are offering too much traffic.
3. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22058 - ETG Pending Transaction Limit Degraded

Alarm Group: DIAM

Description: The ETG Pending Transactions Limit has exceeded the defined threshold

Severity: Major

Instance: <ETGName>

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterEtgPendingTransLimitDegradedNotify

Recovery:

1. Check the configuration in **Main Menu > Diameter > Configuration > Egress Throttle Groups** to determine if the Maximum Configured rate is too low.
2. Check the Egress Message Rate at **Main Menu > Diameter > Maintenance > Egress Throttle Groups** and **Main Menu > Diameter > Maintenance > Connections** to determine if the sending Peers/Connections are offering too much traffic.
3. Determine if the receiving Peers or Connections in the ETG are not responding with Answers in a timely manner because they are either busy or overloaded.
4. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22059 - Egress Throttle Group Message Rate Congestion Level changed

Event Group: DIAM

Description: The Egress Throttle Group Message rate Congestion Level has changed. This will change the Request priority that can be routed on peers and connections in the ETG.

Severity: N/A

Instance: <ETGName>

HA Score: Normal

Throttle Seconds: 10

OID: eagleXgDiameterEtgRateCongestionNotify

Recovery:

1. The Maximum Configured rate may be too low. Check the configuration in **Main Menu > Diameter > Configuration > Egress Throttle Groups**
2. The sending Peers/Connections are offering too much traffic. Check the EMR rate at **Main Menu > Diameter > Maintenance > Egress Throttle Groups** and/or **Main Menu > Diameter > Maintenance > Connections**
3. Typically all routes to a server should be in an ETG. However, if that is not the case, alternate routes may be out of service and could cause overloading of traffic towards connections contained in this ETG. Evaluate traffic distribution to Server connections and see if any alternate routes to Server are unavailable causing overloading of traffic on an ETG.
4. Contact [My Oracle Support \(MOS\)](#) for assistance.

22060 - Egress Throttle Group Pending Transaction Limit Congestion Level changed

Event Group: DIAM

Description: The Egress Throttle Group Pending Transaction Limit Congestion Level has changed. This will change the Request priority that can be routed on peers and connections in the ETG.

Severity: N/A

Instance: <ETGName>

HA Score: Normal

Throttle Seconds: 10

OID: eagleXgDiameterEtgPendingTransCongestionNotify

Recovery:

1. The Maximum Configured rate may be too low. Check the configuration in **Main Menu > Diameter > Configuration > Egress Throttle Groups**
2. The sending Peers/Connections are offering too much traffic. Check the EMR rate at **Main Menu > Diameter > Maintenance > Egress Throttle Groups** and/or **Main Menu > Diameter > Maintenance > Connections**
3. Typically all routes to a server should be in a ETG, however if that is not the case, then those routes becoming out of service could cause overloading of traffic towards connections contained in this

- ETG. Evaluate traffic distribution to Server connections and see if any alternate routes to Server are unavailable causing overloading of traffic on an ETG.
4. The receiving Peers or Connections in the ETG are not responding with Answers in a timely manner. Check to see if they are busy or overloaded.
 5. If the problem persists, contact [My Oracle Support \(MOS\)](#) for assistance.

22061 - Egress Throttle Group Monitoring stopped

Alarm Group: DIAM

Description: ETG Rate and Pending Transaction Monitoring is stopped on all configured ETGs

Severity: Minor

Instance: <DA-MP Hostname>

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterEtgMonitoringStoppedNotify

Recovery:

1. Verify that ComAgent links setup between DA-MPs have not gone OOS causing SMS Service to not receive Responses from DA-MP Leader under **Main Menu > Communication Agent > Maintenance**.
2. Verify that ComAgent links are established between DA-MPs under **Main Menu > Communication Agent > Maintenance**
3. Verify the No-MP Leader condition in **Main Menu > Diameter > Maintenance > DA-MPs > Peer DA-MP Status** that at least 1 DA-MP is MP-Leader.
4. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22062 - Actual Host Name cannot be determined for Topology Hiding

Event Type: Diameter

Description: Topology Hiding could not be applied because the Actual Host Name could not be determined

Severity: N/A

Instance: <CfgSetName>

HA Score: Normal

Throttle Seconds: 10

OID: eagleXgDiameterTopoHidingActualHostNameNotFoundNotify

Recovery:

1. Ensure that all MME/SGSN hostnames to be hidden are present in the MME/SGSN Configuration Set.
2. If any DSR Applications are activated on DSR, ensure that any specific Application Level Topology Hiding feature is not conflicting with the contents of Actual Host Names specified in the MME Configuration Set.

3. Check if the first instance of a Session-ID AVP in the Request/Answer message contains the mandatory delimited ";".
4. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22063 - Diameter Max Message Size Limit Exceeded

Event Type: DIAM

Description: The size of the message encoded by DSR has exceeded its max limits

Severity: Info

Instance: <TransConnName>

HA Score: Normal

Throttle Seconds: 10

OID: eagleXgDiameterDiameterMaxMsgSizeLimitExceededNotify

Recovery:

No action required. However, if this event is seen to be incrementing consistently, contact [My Oracle Support \(MOS\)](#) for assistance.

22101 - Connection Unavailable

Alarm Group: DIAM

Description: Connection is unavailable for Diameter Request/Answer exchange with peer.

Note: This alarm is not added when the "Suppress Connection Unavailable Alarm" for a Transport Connection is set to "Yes".

Severity: Major

Instance: <TransConnName>

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterConnectionUnavailableAlarmNotify

Recovery:

1. Identify the most recent Connection Unavailable event in the event log for the connection and use the Event's recovery steps to resolve the issue.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22102 - Connection Degraded

Alarm Group: DIAM

Description: Connection is only available for routing messages with a priority greater than or equal to the connection's congestion level.

Severity: Major

Instance: <TransConnName>

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterConnectionDegradedAlarmNotify

Recovery:

1. Identify the most recent Connection Degraded event in the event log for the connection and use the Event's recovery steps to resolve the issue.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22103 - SCTP Connection Impaired

Alarm Group: DIAM

Description: One or more paths of the SCTP connection went down.

Severity: Minor

Instance: <TransConnName>

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterSCTPConnectionImpairedAlarmNotify

Recovery:

1. Identify the most recent SCTP Connection Impaired event in the event log for the connection and use the Event's recovery steps to resolve the issue.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22104 - SCTP peer is operating with a reduced IP address set

Alarm Group: DIAM

Description: The SCTP peer advertised less IP addresses than desired by the connection configuration. If two IP addresses have been configured for the Local Node of a certain SCTP connection, but following the SCTP connection establishment the peer node has advertised only one IP address (basically less than the number of IP addresses configured for the local node).

Severity: Minor

Instance: <TransConnName>

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterSCTPPeerReducedIPSetAlarmNotify

Recovery:

1. The peer is not able to advertise more than one IP address either due to an error in its configuration or due to being affected by a network interface failure. Check the networking configuration on the peer node.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22105 - Connection Transmit Congestion

Alarm Group: DIAM

Description: The connection transmit buffer is congested, messages will be discarded until this condition clears up. This error indicates that the socket write cannot complete without blocking, signaling that the socket buffer is currently full.

Severity: Major

Instance: <TransConnName>

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterConnectionTxCongestionAlarmNotify

Recovery:

1. The peer is not able to process the volume of traffic being offered on the connection. The traffic volume must be reduced, or processing capacity on the peer must be increased.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22106 - Ingress Message Discarded: DA-MP Ingress Message Rate Control

Alarm Group: DIAM

Description: An ingress message is discarded due to connection (or DA-MP) ingress message rate exceeding connection (or DA-MP) maximum ingress MPS.

Severity: Major

Instance: <MPHostName>

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterIngressMessageDiscardedAlarmNotify

Recovery:

1. The ingress MPS on the DA-MP is exceeding the MP Maximum Ingress MPS. Consider decreasing the overall ingress message rate on the DA-MP by diverting the traffic or reducing the traffic.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#) for assistance.

22200 - Local MP Congestion

Alarm Group: DIAM

Description: The Diameter Process is approaching or exceeding its engineered traffic handling capacity.

Severity: Minor, Major, Critical

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterLocalMpCongestionNotify

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 > 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 > 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 > 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, contact [My Oracle Support \(MOS\)](#).

22201 - Ingress Message Rate

Alarm Group: DIAM

Description: The ingress message rate for the MP is approaching or exceeding its engineered traffic handling capacity.

Severity: Minor, Major, Critical

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterIngressMsgRateNotify

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 > 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 > 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 > KPIs** page. If all MPs are in a congestion state then the offered load to the server site is exceeding its capacity.
4. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22202 - PDU Buffer Pool Utilization

Alarm Group: DIAM

Description: The MP's PDU buffer pool is approaching its maximum capacity. If this problem persists and the pool reaches 100% utilization all new ingress messages will be discarded. This alarm should not normally occur when no other congestion alarms are asserted.

Severity: Minor, Major, Critical

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterPduBufferPoolUtilNotify

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 > 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 > 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 > 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, contact [My Oracle Support \(MOS\)](#).

22203 - PTR Buffer Pool Utilization

Alarm Group: DIAM

Description: The MP's PTR buffer pool is approaching its maximum capacity. If this problem persists and the pool reaches 100% utilization all new ingress messages will be discarded. This alarm should not normally occur when no other congestion alarms are asserted.

Severity: Minor, Major, Critical

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterPtrBufferPoolUtilNotify

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 > 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 > 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 > 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 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.
5. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22204 - Request Message Queue Utilization

Alarm Group: DIAM

Description: The MP's Request Message Queue Utilization is approaching its maximum capacity. If this problem persists and the queue reaches 100% utilization all new ingress Request messages will be discarded. This alarm should not normally occur when no other congestion alarms are asserted.

Severity: Minor, Major, Critical

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterRequestMessageQueueUtilNotify

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 > 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 > 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 > 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 Request Task 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, contact [My Oracle Support \(MOS\)](#).

22205 - Answer Message Queue Utilization

Alarm Group: DIAM

Description: The MP's Answer Message Queue Utilization is approaching its maximum capacity. If this problem persists and the queue reaches 100% utilization all new ingress Answer messages will be discarded. This alarm should not normally occur when no other congestion alarms are asserted.

Severity: Minor, Major, Critical

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterAnswerMessageQueueUtilNotify

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 > 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 > 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 > 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 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, contact [My Oracle Support \(MOS\)](#).

22206 - Reroute Queue Utilization

Alarm Group: DIAM

Description: The MP's Reroute Queue is approaching its maximum capacity. If this problem persists and the queue reaches 100% utilization any transactions requiring rerouting will be rejected. This alarm should not normally occur when no other congestion alarms are asserted.

Severity: Minor, Major, Critical

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterRerouteQueueUtilNotify

Recovery:

1. An excessive amount of Request message rerouting may have been triggered by either connection failures or Answer time-outs. The status of connections should be examined from the **Diameter > Maintenance > Connections** page.
2. If no additional congestion alarms are asserted, the Reroute 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, contact [My Oracle Support \(MOS\)](#).

22207 - All-Connections Event Queue Utilization

Alarm Group: DIAM

Description: The MP's All-Connections Event Queue is approaching its maximum capacity. If this problem persists and the queue reaches 100% utilization all new ingress transactions will be rejected. This alarm should not normally occur when no other congestion alarms are asserted.

Severity: Minor, Major, Critical

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterAllConnEventQueueUtilNotify

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 > 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 > 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 > 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 task 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, contact [My Oracle Support \(MOS\)](#).

22208 - Per-Connection Egress Message Queue Utilization

Alarm Group: DIAM

Description: The MP's per-connection egress message queue is approaching its maximum capacity.

Severity: Major

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterPerConnMessageQueueUtilNotify

Recovery:

Contact [My Oracle Support \(MOS\)](#) for further assistance.

22209 - Message Copy Disabled**Alarm Group:** DIAM**Description:** Diameter Message Copy is disabled.**Severity:** Minor**Instance:** N/A**HA Score:** Normal**Auto Clear Seconds:** 0 (zero)**OID:** eagleXgDiameterMessageCopyDisabledNotify**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 > 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 > 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 > 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, contact [My Oracle Support \(MOS\)](#).

22214 - Message Copy Queue Utilization**Alarm Group:** DIAM**Description:** The MP's Message Copy queue utilization is approaching its maximum capacity.**Severity:** Minor, Major, Critical**Instance:** N/A**HA Score:** Normal**Auto Clear Seconds:** 0 (zero)**OID:** eagleXgDiameterMsgCopyQueueUtilNotify**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 > 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 > 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 > 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, contact [My Oracle Support \(MOS\)](#).

22215 - Ingress Message Discarded: DA-MP Overload Control

Alarm Group: DIAM

Description: Ingress message is discarded due to DA-MP CPU congestion

Severity: Major

Instance: MPHostName (Hostname of the DA-MP)

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterIngressMessageDiscardedOverLoadControlAlarmNotify

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 > Status & Manage > 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 > Status & Manage > 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 > Status & Manage > 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 > Alarms & Events**.
5. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22216 - Ingress Message Discarded: Priority 0 message discarded by DA-MP Overload Control

Alarm Group: DIAM

Description: Ingress Priority 0 message discarded due to DA-MP CPU congestion.

Severity: Info

Instance: MPHostName (Hostname of the DA-MP)

HA Score: Normal

Throttle Seconds: 30

OID: eagleXgDiameterMpIngressPri0MessageDiscardedNotify

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 > Status & Manage > 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 > Status & Manage > 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 > Status & Manage > 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 > Alarms & Events**.
5. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22217 - Ingress Message Discarded: Priority 1 message discarded by DA-MP Overload Control

Alarm Group: DIAM

Description: Ingress Priority 1 message discarded due to DA-MP CPU congestion.

Severity: Info

Instance: MPHostName (Hostname of the DA-MP)

HA Score: Normal

Throttle Seconds: 30

OID: eagleXgDiameterMpIngressPri1MessageDiscardedNotify

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 > Status & Manage > 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 > Status & Manage > 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 > Status & Manage > 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 > Alarms & Events**.
5. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22218 - Ingress Message Discarded: Priority 2 message discarded by DA-MP Overload Control

Alarm Group: DIAM

Description: Ingress Priority 2 message discarded due to DA-MP CPU congestion.

Severity: Info

Instance: MPHostName (Hostname of the DA-MP)

HA Score: Normal

Throttle Seconds: 30

OID: eagleXgDiameterMpIngressPri2MessageDiscardedNotify

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 > Status & Manage > 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 > Status & Manage > 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 > Status & Manage > 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 > Alarms & Events**.
5. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22220 - Connection Congestion Level change

Event Type: DIAM

Description: The egress congestion level associated with the connection has changed. When a connection's egress queue is congested, the connection's operational status will be Degraded. If this problem persists and the queue reaches 100% utilization all new egress messages for the Connection will be discarded. This event should not normally occur when no other congestion alarms are asserted.

Severity: Info

Instance: <TransConnName>

HA Score: Normal

Throttle Seconds: 10

OID: eagleXgDiameterConnCongestionLevelChangeNotify

Recovery:

1. An IP network or Diameter peer problem may exist thus preventing SCTP/TCP from transmitting messages into the network at the same pace that messages are being received from the network.
2. The transport task associated with the connection may be experiencing a problem preventing it from processing events from its Connection Event Message Queue. The alarm log should be examined using the **Alarms & Events** page.
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. MP server status can be monitored using the **Status & Manage > Server** page.

4. 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 using the **Status & Manage > KPIs** page. 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. The ingress traffic rate of each MP can be monitored using the **Status & Manage > KPIs** page. 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, contact [My Oracle Support \(MOS\)](#).

22221 - Routing MPS Rate

Alarm Group: DIAM

Description: Message processing rate for this MP is approaching or exceeding its engineered traffic handling capacity. The routing mps rate (MPS/second) is approaching or exceeding its engineered traffic handling capacity for the MP.

Severity: Minor, Major, Critical

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterRoutingMpsRateNotify

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.
MP server status can be monitored from **Main Menu > Status & Manage > Server Status**.
2. The mis-configuration of Diameter peers may result in too much traffic being distributed to the MP.
The routing mps rate of each MP can be monitored from **Main Menu > Status & Manage > 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.
The routing mps rate of each MP can be monitored from **Main Menu > Status & Manage > KPIs**. If all MPs are in a congestion state then the ingress message rate to the MP is exceeding its capacity to process the messages.
4. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22222 - Long Timeout PTR Buffer Pool Utilization

Alarm Group: DIAM

Description: The MP's Long Timeout PTR buffer pool is approaching its maximum capacity.

Severity: Minor, Major, Critical

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterLongTimeoutPtrBufferPoolUtilNotify

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 MP server status from **Main Menu > Status & Manage > Server Status**.
2. The misconfiguration of Pending Answer Timer assignment may result in excessive traffic being assigned to the Long Timeout PTR buffer Pool. View the Pending Answer Timer values via **Diameter > Configuration > Pending Answer Timers**. Examine the Pending Answer Timers assignment via the **Diameter > Configuration > Application Ids and Diameter > Configuration > Peer Nodes**.
3. The misconfiguration of Diameter peers may result in too much traffic being distributed to the MP. Monitor the ingress traffic rate of each MP from **Main Menu > Status & Manage > KPIs**. Each MP in the server site should be receiving approximately the same ingress transaction per second
4. There may be an insufficient number of MPs configured to handle the network traffic load. Monitor the ingress traffic rate of each MP from **Main Menu > Status & Manage > KPIs**. If all MPs are in a congestion state then the offered load to the server site is exceeding its capacity.
5. A software defect may exist resulting in Long Timeout PTR buffers not being de-allocated to the pool. This alarm should not normally occur when no other congestion alarms are asserted. Examine the alarm log from **Main Menu > Alarms & Events**.
6. If the problem persists, contact [My Oracle Support \(MOS\)](#)

22223 - DA-MP Memory Utilization Exceeded

Alarm Group: DIAM

Description: DA-MP memory utilization has exceeded its configured limits.

Severity: Minor, Major, Critical

Instance: N/A

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterDaMpMemUtilizationExceededNotify

Recovery:

1. MPS exceeding its configured limits. Alarm [22221 - Routing MPS Rate](#) will be raised; perform the Recovery steps for this alarm.
2. Average hold time exceeding its configured limits. Alarm [22224 - Average Hold Time Limit Exceeded](#) will be raised. Perform the Recovery steps for this alarm.
3. Average message size exceeding its configured limits. Alarm [22225 - Average Message Size Limit Exceeded](#) will be raised. Perform the Recovery steps for this alarm.
4. Other. If the DA-MP is not exceeding any of the limits specified above, contact Oracle for assistance.

22224 - Average Hold Time Limit Exceeded**Alarm Group:** DIAM**Description:** The average transaction hold time has exceeded its configured limits.**Severity:** Minor, Major, Critical**Instance:** N/A**HA Score:** Normal**Auto Clear Seconds:** 0 (zero)**OID:** eagleXgDiameterAvgHoldTimeLimitExceededNotify**Recovery:**

The average transaction hold time is exceeding its configured limits, resulting in an abnormally large number of outstanding transactions. Reduce the average hold time by examining the configured Pending Answer Timer values and reducing any values that are unnecessarily large.

22225 - Average Message Size Limit Exceeded**Alarm Group:** DIAM**Description:** The size of the average message processed by DSR has exceeded its configured limits.**Severity:** Minor, Major, Critical**Instance:** N/A**HA Score:** Normal**Auto Clear Seconds:** 0 (zero)**OID:** eagleXgDiameterAvgMsgSizeLimitExceededNotify**Recovery:**

The size of the average message processed by DSR is exceeding its configured limits. This may cause DSR to consume an abnormally large amount of memory, leading to performance degradation. Alarm [22223 - DA-MP Memory Utilization Exceeded](#) may be raised as a result. Examine the traffic coming from connected peers to see if any of them are sending abnormally large messages.

22300 - Connection Unavailable: Socket configuration failure**Event Type:** DIAM**Description:** Software failure attempting to configure SCTP or TCP socket.**Severity:** Info**Instance:** TransConnName**HA Score:** Normal**Throttle Seconds:** 30**OID:** eagleXgDiameterConnUnavailSocketCfgFailureNotify

Recovery:

Contact [My Oracle Support \(MOS\)](#).

22301 - Connection Unavailable: Connection initiation failure

Event Type: DIAM

Description: Failure occurred while attempting to initiate SCTP or TCP connection with the peer.

Severity: Info

Instance: TransConnName

HA Score: Normal

Throttle Seconds: 30

OID: eagleXgDiameterConnUnavailConnInitFailureNotify

Recovery:

1. Confirm that connection is not administratively Disabled at the peer.
2. Confirm that peer connection configuration (protocol, remote/local IP address, remote/local port) matches local connection configuration.
3. Confirm IP network connectivity between peer IP and local IP for the connection.
4. Confirm that the connection's transport protocol and/or port are not being blocked by a network firewall or other ACL in the network path.
5. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22302 - Connection Unavailable: Received malformed message

Event Type: DIAM

Description: Diameter message received from peer with invalid or inconsistent header/AVP length fields.

Severity: Info

Instance: TransConnName

HA Score: Normal

Throttle Seconds: 30

OID: eagleXgDiameterReceivedMalformedMessageNotify

Recovery:

1. Determine if other nodes/MPs connected to the peer are also experiencing problems with messages received from the peer. If so, the peer should be diagnosed.
2. Determine if other connections on this same MP are also experiencing problems. If so, the MP should be removed moved from service, replaced, and the [My Oracle Support \(MOS\)](#) should be contacted to assist with resolution.

22303 - Connection Unavailable: Peer closed connection

Event Type: DIAM

Description: The SCTP or TCP connection was closed by the peer.

Severity: Info

Instance: TransConnName

HA Score: Normal

Throttle Seconds: 1

OID: eagleXgDiameterConnUnavailPeerClosedConnNotify

Recovery:

1. If unexpected, use peer node diagnostic/log information to determine why peer closed connection.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22304 - Connection Unavailable: Proving Failure

Event Type: DIAM

Description: Connection closed after DWR/DWA based proving algorithm failure.

Severity: Info

Instance: TransConnName

HA Score: Normal

Throttle Seconds: 1

OID: eagleXgDiameterConnUnavailProvingFailureNotify

Recovery:

1. Examine the peer to determine why it is not responding to DWRs.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22305 - Connection Admin State change

Event Type: DIAM

Description: The Administrative state of the connection has changed.

Severity: Info

Instance: TransConnName

HA Score: Normal

Throttle Seconds: 1

OID: eagleXgDiameterConnectionAdminStateChangeNotify

Recovery:

No action required.

22306 - Connection Unavailable: Timeout waiting for CER/CEA

Event Type: DIAM

Description: Connection closed after Tcex timer expired while waiting on CER or CEA from peer.

Severity: Info

Instance: TransConnName

HA Score: Normal

Throttle Seconds: 1

OID: eagleXgDiameterConnUnavailTimedOutWaitingForCexNotify

Recovery:

1. For peer initiated connections, confirm that the configured Tcex timer value is not configured to be less than the expected time for peer to send CER after successfully initiating connection.
2. For locally initiated connections, confirm that the configured Tcex timer value is not less than the time expected for the peer to respond with CEA after receiving CER.
3. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22307 - Connection Unavailable: Timeout waiting for DPA

Event Type: DIAM

Description: Connection closed after Tdpa timer expired while waiting on DPA from peer.

Severity: Info

Instance: TransConnName

HA Score: Normal

Throttle Seconds: 1

OID: eagleXgDiameterConnUnavailTimedOutWaitingForDpxNotify

Recovery:

No action required.

22308 - Received Unexpected CER/CEA

Event Type: DIAM

Description: CER or CEA message was received from the peer when it was not expected.

Severity: Info

Instance: TransConnName

HA Score: Normal

Throttle Seconds: 30

OID: eagleXgDiameterReceivedUnexpectedCexNotify

Recovery:

1. Diagnose peer for unexpected behavior.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22309 - Received Unexpected DWR/DWA

Event Type: DIAM

Description: DWR or DWA message was received from the peer when it was not expected.

Severity: Info

Instance: TransConnName

HA Score: Normal

Throttle Seconds: 30

OID: eagleXgDiameterReceivedUnexpectedDwxNotify

Recovery:

1. Diagnose peer for unexpected behavior.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22310 - Received Unexpected DPR/DPA

Event Type: DIAM

Description: DPR or DPA message was received from the peer when it was not expected.

Severity: Info

Instance: TransConnName

HA Score: Normal

Throttle Seconds: 30

OID: eagleXgDiameterReceivedUnexpectedDpxNotify

Recovery:

1. Diagnose peer for unexpected behavior.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22311 - Invalid Diameter message received

Event Type: DIAM

Description: Diameter message received from peer which was decodable but contained a semantic error.

Severity: Info

Instance: <TransConnName>

HA Score: Normal

Throttle Seconds: 30

OID: eagleXgDiameterReceivedInvalidDiameterMessageNotify

Recovery:

1. Analyze MsgOctets to determine which semantic error occurred and diagnose peer for unexpected behavior.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22312 - Socket send failure

Event Type: DIAM

Description: An unexpected error occurred during the socket send call when attempting to send a Diameter message to the peer.

Severity: Info

Instance: <TransConnName>

HA Score: Normal

Throttle Seconds: 30

OID: eagleXgDiameterFailedToSendDiameterMessageNotify

Recovery:

1. Analyze error value to determine root cause.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22313 - Connection Unavailable: Transport failure

Event Type: DIAM

Description: The connection was closed by the SCTP or TCP transport.

Severity: Info

Instance: <TransConnName>

HA Score: Normal

Throttle Seconds: 1

OID: eagleXgDiameterConnUnavailTransportFailureNotify

Recovery:

1. Analyze error value to determine root cause.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22314 - Connection Unavailable: CEA Realm/Host validation failure

Event Type: DIAM

Description: Origin-Realm and/or Origin-Host in CEA message received from peer on locally initiated connection does not match the locally configured connection.

Severity: Info

Instance: <TransConnName>

HA Score: Normal

Throttle Seconds: 1

OID: eagleXgDiameterConnUnavailCeaRealmHostVldtnFailNotify

Recovery:

1. Confirm that peer connection configuration (Realm, Host, protocol, remote/local IP address, remote/local port) matches local connection configuration using the **Diameter > Configuration > Local Nodes** page.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22315 - Connection Unavailable: Peer IP address validation failure

Event Type: DIAM

Description: Actual peer connection IP address does not match configured peer IP address.

Severity: Info

Instance: <TransConnName>

HA Score: Normal

Throttle Seconds: 1

OID: eagleXgDiameterConnUnavailPeerIpAddrVldtnFailNotify

Recovery:

1. Confirm that peer connection configuration (Realm, Host, protocol, remote/local IP address, remote/local port) matches local connection configuration using the **Diameter > Configuration > Local Nodes** page.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22316 - Connection Unavailable: No common apps

Event Type: DIAM

Description: No common applications were found between local node and peer node during capabilities exchange.

Severity: Info

Instance: <TransConnName>

HA Score: Normal

Throttle Seconds: 1

OID: eagleXgDiameterConnUnavailNoCommonAppsNotify

Recovery:

1. Reconcile Application IDs between local and peer nodes. If no common applications exist, the connection should be deleted or Disabled.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22317 - Connection Rejected: Connection already established**Event Type:** DIAM**Description:** Peer initiated connection was rejected because locally initiated connection has already completed capabilities exchange.**Severity:** Info**Instance:** <TransConnName>**HA Score:** Normal**Throttle Seconds:** 30**OID:** eagleXgDiameterConnRejectedConnAlrdyEstdNotify**Recovery:**

1. If condition persists, diagnose peer to determine reason for the second connection initiation.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22318 - Connection Rejected: Connection not Enabled**Event Type:** DIAM**Description:** Peer initiated connection was rejected because connection was locally Admin Disabled.**Severity:** Info**Instance:** <TransConnName>**HA Score:** Normal**Throttle Seconds:** 30**OID:** eagleXgDiameterConnRejectedConnNotEnabledNotify**Recovery:**

1. Resolve inconsistency between the local and peer nodes Administrative State.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22319 - Connection Unavailable: Diameter Watchdog**Event Type:** DIAM**Description:** Connection closed due to no traffic from peer within Tw*2 time after sending DWR.**Severity:** Info**Instance:** <TransConnName>**HA Score:** Normal**Throttle Seconds:** 1**OID:** eagleXgDiameterConnUnavailWatchdogFailureNotify**Recovery:**

1. Confirm that the connection is not administratively Disabled at the peer.
2. Confirm that the peer connection configuration (protocol, remote/local IP address, remote/local port) matches local connection configuration.
3. Confirm there is reliable IP network connectivity between the peer IP and the local IP for the connection (no excess packet loss).
4. Confirm that the connection's transport protocol and/or port are not being blocked by a network firewall or other ACL in the network path.
5. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22320 - Invalid peer initiated connection

Event Type: DIAM

Description: Origin-Realm and or Origin-Host in CER message received or the peer IP addresses advertised on peer initiated connection does not match any locally configured connection

Severity: Info

Instance: <MPName>

HA Score: Normal

Throttle Seconds: 30

OID: eagleXgDiameterInvalidPeerInitdConnNotify

Recovery:

1. Confirm that peer connection configuration (Realm, Host, protocol, remote/local IP address, remote/local port) matches local connection configuration.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22321 - Connection Unavailable: DNS Resolution Failure

Event Type: DIAM

Description: During connection initiation, Transport/Peer FQDN was unable to be resolved to an IP address via DNS

Severity: Info

Instance: <TransConnName>

HA Score: Normal

Throttle Seconds: 1

OID: eagleXgDiameterConnUnavailDnsResolutionFailureNotify

Recovery:

1. Confirm DNS is available and reachable by MP.
2. Confirm that DNS configuration contains peer FQDN and appropriate corresponding IP address(es).
3. Analyze errno value and text from Event Addn'l Info to determine root cause.
4. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22322 - Connection Proving Success

Event Type: DIAM

Description: The connection proving phase completed successfully.

Severity: Info

Instance: <TransConnName>

HA Score: Normal

Throttle Seconds: 1

OID: eagleXgDiameterConnProvingSuccessNotify

Recovery:

No action required.

22323 - Connection Degraded: Diameter Watchdog

Event Type: DIAM

Description: Connection declared suspect due to no traffic from peer within Tw time after sending DWR.

Severity: Info

Instance: <TransConnName>

HA Score: Normal

Throttle Seconds: 10

OID: eagleXgDiameterConnDegradedWatchdogSuspectNotify

Recovery:

1. Examine the peer to determine why it is not responding.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22324 - Connection Unavailable: CER validation failure

Event Type: DIAM

Description: CER contained invalid or unsupported AVP or AVP value.

Severity: Info

Instance: <TransConnName>

HA Score: Normal

Throttle Seconds: 1

OID: eagleXgDiameterConnUnavailCerValidationFailureNotify

Recovery:

1. Disable peer's use of inband security.

2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22325 - Host-IP-Address AVP(s) in CER/CEA do not match peer IP address(es)

Event Type: DIAM

Description: The Host-IP-Address AVP(s) received in a CER or CEA message from the peer did not match the actual peer connection's IP address(es).

Severity: Info

Instance: <TransConnName>

HA Score: Normal

Throttle Seconds: 1

OID: eagleXgDiameterConnUnavailCerHostIpAvpVldtnFailNotify

Recovery:

1. Diagnose peer to resolve inconsistency.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22326 - Connection Established

Event Type: DIAM

Description: The peer connection is available for signaling traffic.

Severity: Info

Instance: <TransConnName>

HA Score: Normal

Throttle Seconds: 1

OID: eagleXgDiameterConnEstablishedNotify

Recovery:

No action required.

22327 - Initiator function disabled

Event Type: DIAM

Description: Peer disconnect reason indicated that we should not attempt to initiate a connection.

Severity: Info

Instance: <TransConnName>

HA Score: Normal

Throttle Seconds: 1

OID: eagleXgDiameterInitiatorFunctionDisabledNotify

Recovery:

1. No action required. The peer can still initiate a connection. If the peer does not attempt to initiate a connection within a reasonable amount of time, the connection can be disabled, then re-enabled to re-activate the initiator function.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22328 - Connection is processing a higher than normal ingress messaging rate

Alarm Group: DIAM

Description: The diameter connection specified in the alarm instance is processing a higher than normal ingress messaging rate.

Severity:

- Minor (if all of the following are true):
 - The average ingress MPS rate that the connection is processing has reached the percentage of the connection's maximum ingress MPS rate configured for the connection minor alarm threshold.
 - The average ingress MPS rate that the connection is processing has not yet reached the percentage of the connection's maximum ingress MPS rate configured for the connection major alarm threshold.
- Major (if the following are true):
 - The average ingress MPS rate that the connection is processing has reached the percentage of the connection's maximum ingress MPS rate configured for the connection major alarm threshold.

Instance: The name of the diameter connection as defined by the TransportConnection table.

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterIngressMpsRateNotify

Recovery:

1. The Diameter connection specified in the Alarm Instance field is processing a higher than expected average ingress Diameter message rate. The alarm thresholds for minor and major alarms are configured in the Capacity Configuration Set used by the Diameter connection.
2. The message rate used for this alarm is an exponentially smoothed 30 second average. This smoothing limits false alarms due to short duration spikes in the ingress message rate.
3. If the alarm severity is minor, the alarm means that the average ingress message rate has exceeded the minor alarm threshold percentage of the maximum ingress MPS configured for the connection.
4. If the alarm severity is major, the alarm means that the average ingress message rate has exceeded the major alarm threshold percentage of the maximum ingress MPS configured for the connection.
5. This alarm is cleared when the average ingress message rate falls 5% below the minor alarm threshold, or the connection becomes disabled or disconnected. This alarm is downgraded from major to minor if the average ingress message rate falls 5% below the major alarm threshold.
6. If the average ingress message rate is determined to be unusually high, investigate the connection's remote Diameter peer (the source of the ingress messaging) to determine why they are sending the abnormally high traffic rate. Otherwise, consider increasing either the connection's maximum ingress MPS rate or the connection's alarm thresholds.

22329 - SCTP Connection Impaired: A path has become unreachable**Event Type:** DIAM**Description:** A path of an established SCTP connection has become unreachable.**Severity:** Info**Instance:** <TransConnName:Peer IP> (peer/remote IP of the failed path)**HA Score:** Normal**Throttle Seconds:** 10**OID:** eagleXgDiameterSctpConnectionImpairedNotify**Recovery:**

1. Check whether the routing path between the local IP address and the peer IP address is up. If it is not, fix it.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22330 - SCTP Connection Cfg Mismatch: The peer advertised a different number of IP addresses than configured**Event Type:** DIAM**Description:** The peer has advertised in the INIT/INIT_ACK chunk a number of IP addresses different from the number of IP addresses the peer has been configured with in the respective connection object.**Severity:** Info**Instance:** <TransConnName>**HA Score:** Normal**Throttle Seconds:** 1**OID:** eagleXgDiameterSctpConnectionCfgMismatchNotify**Recovery:**

Check the peer configuration on the local node and the networking configuration on the peer itself with regard to which IP addresses the peer shall advertise using the **Diameter > Configuration > System Options** page.

22331 - SCTP Connection Partial Matching: SCTP connection accepted but the IP addresses advertised by the peer match only partially those configured for the peer in the connection object**Event Type:** DIAM**Description:** The peer has advertised in the INIT/INIT_ACK chunk a set of IP addresses which overlap but does not include all the IP addresses configured for the peer in the respective connection object.**Severity:** Info**Instance:** <TransConnName>

HA Score: Normal

Throttle Seconds: 1

OID: eagleXgDiameterSCTPConnectionPartialMatchingNotify

Recovery:

1. Check the peer configuration on the local node and the networking configuration on the peer itself with regard to which IP addresses the peer shall advertise using the **Diameter > Configuration > System Options** page.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22332 - Connection Rejected: Max Connections Exceeded

Event Type: DIAM

Description: Connection was rejected due to the DA-MP exceeding its maximum number of supported Diameter Connections.

Severity: Info

Instance: <TransConnName>

HA Score: Normal

Throttle Seconds: 1

OID: eagleXgDiameterConnRejMaxConnExceededNotify

Recovery:

1. If the DA-MP is a member of a IPFE TS, verify that the IPFE is configured to fully monitor the DA-MP's availability status.
When a IPFE fully monitors application servers in a IPFE TS, it will cease from distributing new Diameter connections to any/all application servers that report a "Stasis" availability status.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22333 - Connection Rejected: Insufficient Ingress MPS

Event Type: DIAM

Description: Connection was rejected due to insufficient Ingress MPS on the DA-MP to support the Reserved Ingress MPS configured for the connection. This sum of the Reserved Ingress MPS for the added connection and MP Reserved Ingress MPS has exceeded the MP Maximum Reserved Ingress MPS.

Severity: Info

Instance: <TransConnName>

HA Score: Normal

Throttle Seconds: 10

OID: eagleXgDiameterConnRejInsufficientIngressMpsNotify

Recovery:

1. The value for Reserved Ingress MPS for the added connection needs to be examined to determine if its value should be decreased.
2. Contact [My Oracle Support \(MOS\)](#) for assistance.

22334 - Unexpected Message Priority in ingress Request

Event Type: DIAM

Description: The decoded Message Priority from the ingress Request has an unexpected value.

Severity: Info

Instance: <TransConnName>

HA Score: Normal

Throttle Seconds: 20

OID: eagleXgDiameterUnexpMessagePriorityInRequestNotify

Recovery:

1. Verify that the peer is a DSR
 - Product-Name is reported as "Eagle XG DSR", in the Event Additional Information.
 - Vendor-Id is reported as 323 (Tekelec).
2. Verify that the Firmware-Revision reported in the Event Additional Information represents a DSR software version that supports the Message Priority Feature.
 - Call [My Oracle Support \(MOS\)](#) and obtain the minimum DSR software version that supports Message Priority and compare with this information.
 - If the reported Firmware-Version is greater than or equal to the minimum required DSR software version, call [My Oracle Support \(MOS\)](#).
 - If the reported Firmware-Version is less than the minimum required DSR software version, call [My Oracle Support \(MOS\)](#) to seek advice on whether the peer DSR needs to be upgraded, or whether the Message Priority Setting for this Transport Connection or Peer Node needs to be changed to "None".

22335 - Peer does not support Message Priority

Event Type: DIAM

Description: Cannot read Message Priority from ingress Requests because Peer does not support Message Priority.

Severity: Info

Instance: <TransConnName>

HA Score: Normal

Throttle Seconds: 20

OID: eagleXgDiameterMessagePriorityNotSuppPeerNotify

Recovery:

1. Verify that the peer is a DSR

- Product-Name is reported as “Eagle XG DSR”, in the Event Additional Information.
 - Vendor-Id is reported as 323 (Tekelec).
2. Verify that the Firmware-Revision reported in the Event Additional Information represents a DSR software version that supports the Message Priority Feature.
 - Call *My Oracle Support (MOS)* and obtain the minimum DSR software version that supports Message Priority and compare with this information.
 - If the reported Firmware-Version is greater than or equal to the minimum required DSR software version, call *My Oracle Support (MOS)*.
 - If the reported Firmware-Version is less than the minimum required DSR software version, call *My Oracle Support (MOS)* to seek advice on whether the peer DSR needs to be upgraded, or whether the Message Priority Setting for this Transport Connection or Peer Node needs to be changed to “None”.

22336 - Connection Rejected: Multihomed SCTP connection attempt

Event Type: DIAM

Description: Connection was rejected because the peer attempted to initiate an SCTP multihomed connection to an IPFE connection.

Severity: Info

Instance: <TransConnName>

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterConnRejMHSctpConnAttemptNotify

Recovery:

1. Update the peer to initiate unihomed IPFE SCTP connections.
2. Contact *My Oracle Support (MOS)* for assistance.

22343 - Connection Unavailable: Duplicate Connection Released

Event Type: DIAM

Description: Duplicate connection established, connection terminated.

Severity: Info

Instance: <TransConnName>

HA Score: Normal

Throttle Seconds: 1

OID: eagleXgDiameterDuplicateConnectionReleasedNotify

Recovery:

No action necessary.

22344 - Failed to process ingress message: Processor Unavailable or Congested**Event Type:** DIAM**Description:** The message processor is Unavailable or Congested. This event refers to another DA-MP, not the one reporting the problem.**Severity:** Info**Instance:** <SourceMpHost>**HA Score:** Normal**Throttle Seconds:** 10**OID:** eagleXgDiameterProcessorUnavlblOrCngstedNotify**Recovery:**Contact [My Oracle Support \(MOS\)](#) for further assistance.**22345 - Connection Priority Level changed****Event Type:** DIAM**Description:** The Diameter Connection's CPL has transitioned from its current value to a new CPL value based on congestion levels reported by various features.**Severity:** Info**Instance:** <TransConnName>**HA Score:** Normal**Throttle Seconds:** 0 (zero)**OID:** eagleXgDiameterCplChangedNotify**Recovery:**

1. Find additional information for the alarm in **Main Menu > Alarms & Events > View History** by locating the row with a sequence number that matches the active alarm sequence number and viewing the Additional Info column.
2. Identify the most recent "Connection Degraded" event in the event log for the connection and utilize the Event Detailed information to diagnose the condition.
3. If the problem persists, contact [My Oracle Support \(MOS\)](#) for assistance.

22346 - MP Reserved Ingress MPS Oversubscribed**Event Type:** DIAM**Description:** The total connection Reserved Ingress MPS exceeds the Engineered Ingress MPS capacity of the MP.**Severity:** Info**Instance:** MPName (Hostname of the DA-MP Server)**HA Score:** Normal

Throttle Seconds: 1

OID: eagleXgDiameterMpResIngressMpsOversubscribedNotify

Recovery:

1. Find additional information for the alarm in **Main Menu > Alarms & Events > View History** by locating the row with a sequence number that matches the active alarm sequence number and viewing the Additional Info column.
2. Perform one or more of these actions:
 - Increase the maximum reserved capacity by increasing the value of IPFE Connection Reserved Ingress MPS Scaling parameter.
 - Reduce the subscribed amount of reserved capacity by reducing the number of connections.
 - Reduce the reserved capacity required by connections.
3. If the problem persists, contact [My Oracle Support \(MOS\)](#) for assistance.

22347 - Ingress Message Discarded: DA-MP shared ingress capacity exhausted

Alarm Group: DIAM

Description: An ingress message is discarded on a DA-MP due to the ingress message rate on the DA-MP exceeding MP Maximum Ingress MPS.

Severity: N/A

Instance: <MPHostName>

HA Score: Normal

Throttle Seconds: 30

OID: eagleXgDiameterMpIngressMessageDiscardedNotify

Recovery:

1. The ingress MPS on the DA-MP is exceeding the MP Maximum Ingress MPS. Consider decreasing the overall ingress message rate on the DA-MP by diverting the traffic or reducing the traffic.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#) for assistance.

22349 - IPFE Connection Alarm Aggregation Threshold

Alarm Group: DIAM

Description: This alarm occurs when there are a 'Critical' number of IPFE Connection alarms for the Network Element.

Note: The Alarm Thresholds are configurable using the "Alarm Threshold Options" tab on the **Main Menu > Diameter > Configuration > System Options** screen.

Severity: Critical, Major

Note: The Critical threshold may be disabled by setting the Critical Threshold to zero using the "Alarm Threshold Options" tab on the **Main Menu > Diameter > Configuration > System Options** screen.

Instance: <NetworkElement>

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterIPFEConnUnavailableThresholdReachedNotify

Recovery:

1. Use **Main Menu > Diameter > Maintenance > Connection** to monitor IPFE Connection status.
2. Confirm that peer connection configuration (protocol, remote/local IP address, remote/local port) matches the local connection configuration.
3. Confirm that the connection's transport protocol and/or port are not being blocked by a network firewall or other ACL in the network path.
4. Verify that the peers in the Route List are not under maintenance.
5. Contact [My Oracle Support \(MOS\)](#) for assistance.

22350 - Fixed Connection Alarm Aggregation Threshold

Alarm Group: DIAM

Description: This alarm occurs when there are a 'Critical' number of Fixed Connection alarms for the DA-MP.

Note: The Alarm Thresholds are configurable using the "Alarm Threshold Options" tab on the **Main Menu > Diameter > Configuration > System Options** screen.

Severity: Critical, Major

Note: The Critical threshold may be disabled by setting the Critical Threshold to zero using the "Alarm Threshold Options" tab on the **Main Menu > Diameter > Configuration > System Options** screen.

Instance: <DA-MP-Hostname>

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterConnUnavailableThresholdReachedNotify

Recovery:

1. Use **Main Menu > Diameter > Maintenance > Connection** to monitor Fixed Connection status.
2. Confirm that peer connection configuration (protocol, remote/local IP address, remote/local port) matches the local connection configuration.
3. Confirm that the connection's transport protocol and/or port are not being blocked by a network firewall or other ACL in the network path.
4. Verify that the peers in the Route List are not under maintenance.
5. Contact [My Oracle Support \(MOS\)](#) for assistance.

22900 - DPI DB Table Monitoring Overrun

Event Type: DIAM

Description: The COMCOL update sync log used by DB Table monitoring to synchronize Diameter Connection Status among all DA-MP RT-DBs has overrun. The DA-MP's Diameter Connection Status sharing table is automatically audited and re-synced to correct any inconsistencies.

Severity: Info

Instance: <DbTblName>

Note: <DbTblName> refers to the name of the Diameter Connection Status Sharing Table the Diameter Connection status inconsistency that was detected.

HA Score: Normal

Throttle Seconds: 10

OID: eagleXgDiameterDpiTblMonCbOnLogOverrunNotify

Recovery:

Contact [My Oracle Support \(MOS\)](#) if this alarm is constantly being asserted and cleared.

22901 - DPI DB Table Monitoring Error

Event Type: DIAM

Description: An unexpected error occurred during DB Table Monitoring.

Severity: Info

Instance: DpiTblMonThreadName

HA Score: Normal

Throttle Seconds: 10

OID: eagleXgDiameterDpiSldbMonAbnormalErrorNotify

Recovery:

Contact [My Oracle Support \(MOS\)](#).

22950 - Connection Status Inconsistency Exists

Alarm Group: DIAM

Description: Diameter Connection status inconsistencies exist among the DA-MPs in the DSR signaling NE.

Severity: Critical

Instance: <MpName> (where inconsistency detected)

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterConnStatusInconsistencyExistsNotify

Recovery:

No action necessary.

Note: DA-MP's SLDB tables are automatically audited and re-synchronized to correct inconsistencies after a log overrun has occurred.

22960 - DA-MP Profile Not Assigned**Alarm Group:** DIAM**Description:** A DA-MP configuration profile has not been assigned to this DA-MP.**Severity:** Critical**Instance:** N/A**HA Score:** Normal**Auto Clear Seconds:** 0 (zero)**OID:** eagleXgDiameterDaMpProfileNotAssignedNotify**Recovery:**

1. A DA-MP profile must be assigned to the DA-MP via the DSR OAM GUI.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

22961 - Insufficient Memory for Feature Set**Alarm Group:** DIAM**Description:** The Available Memory (in kilobytes) for Feature Set is less than the Required Memory (in kilobytes).**Severity:** Critical**Instance:** N/A**HA Score:** Normal**Auto Clear Seconds:** 0 (zero)**OID:** eagleXgDiameterInsufficientAvailMemNotify**Recovery:**

1. Make additional memory available on the DA-MP for the configured DiameterMaxMessageSize.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

25000-25499 - Computer Aided Policy Making

This section provides information and recovery procedures for the Computer-Aided Policy Making (CAPM) feature (i.e., Diameter Mediation) alarms and events, ranging from 25000 - 25499, and lists the types of alarms and events that can occur on the system. All events have a severity of Info.

Alarms and events are recorded in a database log table. Currently active alarms can be viewed from the Launch Alarms Dashboard GUI menu option. The alarms and events log can be viewed from the **Alarms & Events > View History** page.

25000 - Rule Template failed to be updated**Event Type:** CAPM

Description: The Rule Template failed to update because of syntax errors. The Additional Info of the Historical alarm includes the name of the Rule Template that failed to be updated.

When the alarm is caused by CAPM Rule Template which contains a syntax error, it may not be raised immediately after applying the template, but may occur when the first Rule has been provisioned and committed.

Severity: Minor

Instance: <ruleset> or <ruleset:rule-id>

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterCapmUpdateFailedNotify

Recovery:

1. Check the CAPM Rule Template and verify that the left-hand side term of each condition contains a valid Linking-AVP or Select expression.

A typical problem can be a non-existing expression, or syntax error of a custom-defined Select expression. If the CAPM Rule Template contains a syntax error, create a new Rule Template by copying and modifying the existing one, then deleting the old Rule Template.

2. Verify also that the recently provisioned data of the Rule Template does not contain a syntax error, i.e., the regular expressions are correct, the fields expecting numbers contain only numbers, etc.

25001 - Action failed within the Rule Template

Event Type: CAPM

Description: When a new Rule Template is created, a failure occurs when performing the action.

Severity: Info

Instance: <ruleset> or <ruleset:rule-id>

HA Score: Normal

Throttle Seconds: 30

OID: eagleXgDiameterCapmActionFailedNotify

Recovery:

Check the reasons the action failed. It may be a lack of system resources to perform an action, or the action may refer to a part of the message that is not available.

25002 - Stop Rule Template processing after action failure

Event Type: CAPM

Description: When Action Error Handling is set to 'immediately exit from the rule template' for the given Rule Template and a failure occurs when performing the action, processing of the Rule Template is stopped.

Severity: Info

Instance: <ruleset> or <ruleset:rule-id>

HA Score: Normal

Throttle Seconds: 30

OID: eagleXgDiameterCapmExitRuleFailedNotify

Recovery:

No action required.

25003 - Exit Trigger point after action failure

Event Type: CAPM

Description: When Action Error Handling is set to 'immediately exit from the trigger point' for the given Rule Template and a failure occurs when performing the action, processing of the Rule Template is stopped (subsequent templates within the trigger point are also skipped).

Severity: Info

Instance: <ruleset> or <ruleset:rule-id>

HA Score: Normal

Throttle Seconds: 30

OID: eagleXgDiameterCapmExitTriggerFailedNotify

Recovery:

No action required.

25500-25899 - OAM Alarm Management

This section provides information and recovery procedures related for alarms and events related to OAM Alarm Management, ranging from 25500 - 25899, that can occur on the system. All events have a severity of Info.

Alarms and events are recorded in a database log table. Currently active alarms can be viewed from the Launch Alarms Dashboard GUI menu option. The alarms and events log can be viewed from the **Alarms & Events > View History** page.

25500 - No DA-MP Leader Detected Alarm

Alarm Group: DIAM

Description: This alarm occurs when no active DA-MP leaders have been detected.

Severity: Critical

Instance: <NetworkElement>

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterNoDaMpLeaderDetectedNotify

Recovery:

If the problem persists, contact [My Oracle Support \(MOS\)](#) for assistance.

25510 - Multiple DA-MP Leader Detected Alarm

Alarm Group: DIAM

Description: This alarm occurs when multiple active DA-MP leaders have been detected.

Severity: Critical

Instance: <NetworkElement>

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: eagleXgDiameterMultipleDaMpLeadersDetectedNotify

Recovery:

If the problem persists, contact [My Oracle Support \(MOS\)](#) for assistance.

31000-32700 - Platform

This section provides information and recovery procedures for the Platform alarms, ranging from 31000-32700. Platform provides basic functionality that is shared across products.

Alarms and events are recorded in a database log table. Currently active alarms can be viewed from the Launch Alarms Dashboard GUI menu option. The alarms and events log can be viewed from the **Alarms & Events > View History** page.

31000 - S/W fault

Alarm Group: SW

Description: Program impaired by s/w fault

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolSwFaultNotify

Recovery:

1. Export event history for the given server and the given process.
2. Contact [My Oracle Support \(MOS\)](#).

31001 - S/W status

Alarm Group: SW

Description: Program status

Severity: Info

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolSwStatusNotify

Recovery:

No action required.

31002 - Process watchdog failure

Alarm Group: SW

Description: Process watchdog timed out

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: comcolProcWatchdogFailureNotify

Recovery:

1. Export event history for the given server and the given process.
2. Contact [My Oracle Support \(MOS\)](#).

31003 - Tab thread watchdog failure

Alarm Group: SW

Description: Tab thread watchdog timed out

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolThreadWatchdogFailureNotify

Recovery:

1. Export event history for the given server and the given process.
2. Contact [My Oracle Support \(MOS\)](#).

31100 - Database replication fault

Alarm Group: SW

Description: The Database replication process is impaired by a s/w fault

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolDbReplicationFaultNotify

Recovery:

1. Export event history for the given server and inetsync task.
2. Contact [My Oracle Support \(MOS\)](#).

31101 - Database replication to slave failure

Alarm Group: REPL

Description: Database replication to a slave Database has failed

Severity: Critical

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolDbRepToSlaveFailureNotify

Recovery:

1. Check IMI network connectivity between the affected servers.
2. If there are no issues with network connectivity, contact [My Oracle Support \(MOS\)](#).

31102 - Database replication from master failure

Alarm Group: REPL

Description: Database replication from a master Database has failed

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolDbRepFromMasterFailureNotify

Recovery:

1. Check IMI network connectivity between the affected servers.
2. If there are no issues with network connectivity, contact [My Oracle Support \(MOS\)](#).

31103- DB Replication update fault**Alarm Group:** REPL**Description:** Database replication process cannot apply update to DB**Severity:** Minor**Instance:** May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr**HA Score:** Normal**Auto Clear Seconds:** 300**OID:** comcolDbRepUpdateFaultNotify**Recovery:**

1. Export event history for the given server and inetsync task.
2. Contact [My Oracle Support \(MOS\)](#).

31104 - DB Replication latency over threshold**Alarm Group:** REPL**Description:** Database replication latency has exceeded thresholds**Severity:** Minor**Instance:** May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr**HA Score:** Normal**Auto Clear Seconds:** 300**OID:** comcolDbRepLatencyNotify**Recovery:**

1. If this alarm is raised occasionally for short time periods (a couple of minutes or less), it may indicate network congestion or spikes of traffic pushing servers beyond their capacity. Consider re-engineering network capacity or subscriber provisioning.
2. If this alarm does not clear after a couple of minutes, contact [My Oracle Support \(MOS\)](#).

31105 - Database merge fault**Alarm Group:** SW**Description:** The database merge process (inetmerge) is impaired by a s/w fault**Severity:** Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolDbMergeFaultNotify

Recovery:

1. Export event history for the given server and inetmerge task.
2. Contact [My Oracle Support \(MOS\)](#).

31106 - Database merge to parent failure

Alarm Group: COLL

Description: Database merging to the parent Merge Node has failed

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: comcolDbMergeToParentFailureNotify

Recovery:

1. Check IMI network connectivity between the affected servers.
2. If there are no issues with network connectivity, contact [My Oracle Support \(MOS\)](#).

31107 - Database merge from child failure

Alarm Group: COLL

Description: Database merging from a child Source Node has failed

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolDbMergeFromChildFailureNotify

Recovery:

1. Check IMI network connectivity between the affected servers.
2. If there are no issues with network connectivity, contact [My Oracle Support \(MOS\)](#).

31108 - Database merge latency over threshold**Alarm Group:** COLL**Description:** Database Merge latency has exceeded thresholds**Severity:** Minor**Instance:** May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr**HA Score:** Normal**Auto Clear Seconds:** 300**OID:** comcolDbMergeLatencyNotify**Recovery:**

1. If this alarm is raised occasionally for short time periods (a couple of minutes or less), it may indicate network congestion or spikes of traffic pushing servers beyond their capacity. Consider re-engineering network capacity or subscriber provisioning.
2. If this alarm does not clear after a couple of minutes, contact [My Oracle Support \(MOS\)](#)

31109 - Topology config error**Alarm Group:** DB**Description:** Topology is configured incorrectly**Severity:** Minor**Instance:** May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr**HA Score:** Normal**Auto Clear Seconds:** 300**OID:** comcolTopErrorNotify**Recovery:**

1. This alarm may occur during initial installation and configuration of a server. No action is necessary at that time.
2. If this alarm occurs after successful initial installation and configuration of a server, contact [My Oracle Support \(MOS\)](#).

31110 - Database audit fault**Alarm Group:** SW**Description:** The Database service process (idbsvc) is impaired by a s/w fault**Severity:** Minor**Instance:** May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolDbAuditFaultNotify

Recovery:

1. Export event history for the given server and idbsvc task.
2. Contact [My Oracle Support \(MOS\)](#).

31111 - Database merge audit in progress

Alarm Group: COLL

Description: Database Merge Audit between mate nodes in progress

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolDbMergeAuditNotify

Recovery:

No action required.

31112 - Stateful db synchronization from mate server

Alarm Group: REPL

Description: Stateful database is not yet synchronized with mate database.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 30

OID: comcolDbRepUpLogTransTimeoutNotify

Recovery:

No action required. Contact [My Oracle Support \(MOS\)](#) if this occurs frequently.

31113 - DB replication manually disabled

Alarm Group: REPL

Description: DB Replication Manually Disabled

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: comcolDbReplicationManuallyDisabledNotify

Recovery:

No action required.

31114 - DB replication over SOAP has failed

Alarm Group: REPL

Description: Database replication of configuration data via SOAP has failed

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 3600

OID: comcolDbReplicationSoapFaultNotify

Recovery:

1. Check IMI network connectivity between the affected servers.
2. If there are no issues with network connectivity, contact [My Oracle Support \(MOS\)](#).

31115 - Database service fault

Alarm Group: SW

Description: The Database service process (idbsvc) is impaired by a s/w fault

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolDbServiceFaultNotify

Recovery:

1. Export event history for the given server and idbsvc task.
2. Contact [My Oracle Support \(MOS\)](#).

31116 - Excessive shared memory

Alarm Group: MEM

Description: The amount of shared memory consumed exceeds configured thresholds

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolExcessiveSharedMemoryConsumptionNotify

Recovery:

Contact [My Oracle Support \(MOS\)](#).

31117 - Low disk free

Alarm Group: DISK

Description: The amount of free disk is below configured thresholds

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolLowDiskFreeNotify

Recovery:

1. Remove unnecessary or temporary files from partitions.
2. If there are no files known to be unneeded, contact [My Oracle Support \(MOS\)](#).

31118 - Database disk store fault

Alarm Group: DISK

Description: Writing the database to disk failed

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolDbDiskStoreFaultNotify

Recovery:

1. Remove unnecessary or temporary files from partitions.
2. If there are no files known to be unneeded, contact [My Oracle Support \(MOS\)](#).

31119 - Database updatelog overrun**Alarm Group:** DB**Description:** The Database update log was overrun increasing risk of data loss**Severity:** Minor**Instance:** May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr**HA Score:** Normal**Auto Clear Seconds:** 300**OID:** comcolDbUpdateLogOverrunNotify**Recovery:**Contact [My Oracle Support \(MOS\)](#).**31120 - Database updatelog write fault****Alarm Group:** DB**Description:** A Database change cannot be stored in the updatelog**Severity:** Minor**Instance:** May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr**HA Score:** Normal**Auto Clear Seconds:** 300**OID:** comcolDbUpdateLogWriteFaultNotify**Recovery:**Contact [My Oracle Support \(MOS\)](#).**31121 - Low disk free early warning****Alarm Group:** DISK**Description:** The amount of free disk is below configured early warning thresholds**Severity:** Minor**Instance:** May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr**HA Score:** Normal**Auto Clear Seconds:** 300**OID:** comcolLowDiskFreeEarlyWarningNotify**Recovery:**

1. Remove unnecessary or temporary files from partitions that are greater than 80% full.

2. If there are no files known to be unneeded, contact [My Oracle Support \(MOS\)](#).

31122 - Excessive shared memory early warning

Alarm Group: MEM

Description: The amount of shared memory consumed exceeds configured early warning thresholds

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolExcessiveShMemConsumptionEarlyWarnNotify

Recovery:

Contact [My Oracle Support \(MOS\)](#).

31123 - Database replication audit command complete

Alarm Group: REPL

Description: ADIC found one or more errors that are not automatically fixable.

Severity: Info

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolDbRepAuditCmdCompleteNotify

Recovery:

No action required.

31124 - ADIC error

Alarm Group: REPL

Description: An ADIC detected errors

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolDbRepAuditCmdErrNotify

Recovery:

Contact [My Oracle Support \(MOS\)](#).

31125 - Database durability degraded

Alarm Group: REPL

Description: Database durability has dropped below configured durability level

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolDbDurabilityDegradedNotify

Recovery:

1. Check configuration of all servers, and check for connectivity problems between server IMI addresses.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

31126 - Audit blocked

Alarm Group: REPL

Description: Site Audit Controls blocked an inter-site replication audit due to the number in progress per configuration.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolAuditBlockedNotify

Recovery:

Contact [My Oracle Support \(MOS\)](#).

31127 - DB Replication Audit Complete

Alarm Group: REPL

Description: DB replication audit completed

Severity: Info

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolDbRepAuditCompleteNotify

Recovery:

No action required.

31128 - ADIC Found Error

Alarm Group: REPL

Description: ADIC found one or more errors that are not automatically fixable.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolDbADICErrorNotify

Recovery:

Contact [My Oracle Support \(MOS\)](#).

31129 - ADIC Found Minor Issue

Alarm Group: REPL

Description: ADIC found one or more minor issues that can most likely be ignored

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 14400

OID: comcolDbADICWarn

Recovery:

No action required.

31130 - Network health warning

Alarm Group: NET

Description: Network health issue detected

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolNetworkHealthWarningNotify

Recovery:

1. Check configuration of all servers, and check for connectivity problems between server IMI addresses.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

31131 - IDB Throttled for Extended Period

Alarm Group: DB

Description: IDB has one or more processes throttled for an extended period.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: comcolOustedThrottleWarnNotify

Recovery:

1. Monitor for workload in excess of documented capacity.
2. Contact [My Oracle Support \(MOS\)](#) if this alarm persists.

31140 - Database perl fault

Alarm Group: SW

Description: Perl interface to Database is impaired by a s/w fault

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolDbPerlFaultNotify

Recovery:

Contact [My Oracle Support \(MOS\)](#).

31145 - Database SQL fault

Alarm Group: SW

Description: SQL interface to Database is impaired by a s/w fault

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolDbSQLFaultNotify

Recovery:

1. Export event history for the given server, and Imysqld task.
2. Contact [My Oracle Support \(MOS\)](#).

31146 - DB mastership fault

Alarm Group: SW

Description: DB replication is impaired due to no mastering process (inetrep/inetrep).

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolDbMastershipFaultNotify

Recovery:

1. Export event history for the given server.
2. Contact [My Oracle Support \(MOS\)](#).

31147 - DB upsynclog overrun

Alarm Group: SW

Description: UpSyncLog is not big enough for (WAN) replication.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolDbUpSyncLogOverrunNotify

Recovery:

Contact [My Oracle Support \(MOS\)](#).

31148 - DB lock error detected

Alarm Group: DB

Description: The DB service process (idbsvc) has detected an IDB lock-related error caused by another process. The alarm likely indicates a DB lock-related programming error, or it could be a side effect of a process crash.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolDbLockErrorNotify

Recovery:

Contact [My Oracle Support \(MOS\)](#).

31200 - Process management fault

Alarm Group: SW

Description: The process manager (procmgr) is impaired by a s/w fault

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolProcMgmtFaultNotify

Recovery:

1. Export event history for the given server, all processes.
2. Contact [My Oracle Support \(MOS\)](#).

31201 - Process not running

Alarm Group: PROC

Description: A managed process cannot be started or has unexpectedly terminated

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolProcNotRunningNotify

Recovery:

Contact [My Oracle Support \(MOS\)](#).

31202 - Unkillable zombie process

Alarm Group: PROC

Description: A zombie process exists that cannot be killed by procmgr. procmgr will no longer manage this process.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolProcZombieProcessNotify

Recovery:

1. If the process does not exit, it may be necessary to reboot the server to eliminate the zombie process.
2. Contact [My Oracle Support \(MOS\)](#).

31206 - Process mgmt monitoring fault

Alarm Group: SW

Description: The process manager monitor (pm.watchdog) is impaired by a s/w fault

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolProcMgmtMonFaultNotify

Recovery:

Contact [My Oracle Support \(MOS\)](#).

31207 - Process resource monitoring fault

Alarm Group: SW

Description: The process resource monitor (ProcWatch) is impaired by a s/w fault

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolProcResourceMonFaultNotify

Recovery:

Contact [My Oracle Support \(MOS\)](#).

31208 - IP port server fault

Alarm Group: SW

Description: The run environment port mapper (re.portmap) is impaired by a s/w fault

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolPortServerFaultNotify

Recovery:

Contact [My Oracle Support \(MOS\)](#).

31209 - Hostname lookup failed

Alarm Group: SW

Description: Unable to resolve a hostname specified in the NodeInfo table

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolHostLookupFailedNotify

Recovery:

1. This typically indicates a DNS Lookup failure. Verify all server hostnames are correct in the GUI configuration on the server generating the alarm.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

31213 - Process scheduler fault

Alarm Group: SW

Description: The process scheduler (ProcSched/runat) is impaired by a s/w fault

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolProcSchedulerFaultNotify

Recovery:

Contact [My Oracle Support \(MOS\)](#).

31214 - Scheduled process fault

Alarm Group: PROC

Description: A scheduled process cannot be executed or abnormally terminated

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolScheduleProcessFaultNotify

Recovery:

Contact [My Oracle Support \(MOS\)](#).

31215 - Process resources exceeded

Alarm Group: SW

Description: A process is consuming excessive system resources

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 14400

OID: comcolProcResourcesExceededFaultNotify

Recovery:

Contact [My Oracle Support \(MOS\)](#).

31216 - SysMetric configuration error

Alarm Group: SW

Description: A SysMetric Configuration table contains invalid data

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolSysMetricConfigErrorNotify

Recovery:

Contact [My Oracle Support \(MOS\)](#).

31220 - HA configuration monitor fault

Alarm Group: SW

Description: The HA configuration monitor is impaired by a s/w fault

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolHaCfgMonitorFaultNotify

Recovery:

Contact [My Oracle Support \(MOS\)](#).

31221 - HA alarm monitor fault

Alarm Group: SW

Description: The high availability alarm monitor is impaired by a s/w fault

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolHaAlarmMonitorFaultNotify

Recovery:

Contact [My Oracle Support \(MOS\)](#).

31222 - HA not configured**Alarm Group:** HA**Description:** High availability is disabled due to system configuration**Severity:** Minor**Instance:** May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr**HA Score:** Normal**Auto Clear Seconds:** 300**OID:** comcolHaNotConfiguredNotify**Recovery:**Contact [My Oracle Support \(MOS\)](#).**31223 - HA Heartbeat transmit failure****Alarm Group:** HA**Description:** The high availability monitor failed to send heartbeat**Severity:** Major**Instance:** May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr**HA Score:** Normal**Auto Clear Seconds:** 300**OID:** comcolHaHbTransmitFailureNotify**Recovery:**

1. This alarm clears automatically when the server successfully registers for HA heartbeating.
2. If this alarm does not clear after a couple minutes, contact [My Oracle Support \(MOS\)](#).

31224 - HA configuration error**Alarm Group:** HA**Description:** High availability configuration error**Severity:** Major**Instance:** May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr**HA Score:** Normal**Auto Clear Seconds:** 300**OID:** comcolHaCfgErrorNotify**Recovery:**

Contact [My Oracle Support \(MOS\)](#).

31225 - HA service start failure

Alarm Group: HA

Description: The high availability service failed to start

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolHaSvcStartFailureNotify

Recovery:

1. This alarm clears automatically when the HA daemon is successfully started.
2. If this alarm does not clear after a couple minutes, contact [My Oracle Support \(MOS\)](#).

31226 - HA availability status degraded

Alarm Group: HA

Description: The high availability status is degraded due to raised alarms

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolHaAvailDegradedNotify

Recovery:

1. View alarms dashboard for other active alarms on this server.
2. Follow corrective actions for each individual alarm on the server to clear them.
3. If the problem persists, contact [My Oracle Support \(MOS\)](#).

31227 - HA availability status failed

Alarm Group: HA

Description: The high availability status is failed due to raised alarms

Severity: Critical

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolHaAvailFailedNotify

Recovery:

1. View alarms dashboard for other active alarms on this server.
2. Follow corrective actions for each individual alarm on the server to clear them.
3. If the problem persists, contact [My Oracle Support \(MOS\)](#).

31228 - HA standby offline

Alarm Group: HA

Description: High availability standby server is offline

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: comcolHaStandbyOfflineNotify

Recovery:

1. If loss of communication between the active and standby servers is caused intentionally by maintenance activity, alarm can be ignored; it clears automatically when communication is restored between the two servers.
2. If communication fails at any other time, look for network connectivity issues and/or Contact [My Oracle Support \(MOS\)](#).

31229 - HA score changed

Alarm Group: HA

Description: High availability health score changed

Severity: Info

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolHaScoreChangeNotify

Recovery:

Status message - no action required.

31230 - Recent alarm processing fault

Alarm Group: SW

Description: The recent alarm event manager (raclerk) is impaired by a s/w fault

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolRecAlarmEvProcFaultNotify

Recovery:

1. Export event history for the given server and raclerk task.
2. Contact [My Oracle Support \(MOS\)](#).

31231 - Platform alarm agent fault

Alarm Group: SW

Description: The platform alarm agent impaired by a s/w fault

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolPlatAlarmAgentNotify

Recovery:

Contact [My Oracle Support \(MOS\)](#).

31232 - Late heartbeat warning

Alarm Group: HA

Description: High availability server has not received a message on specified path within the configured interval.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolHaLateHeartbeatWarningNotify

Recovery:

No action required; this is a warning and can be due to transient conditions. If there continues to be no heartbeat from the server, Alarm [31228 - HA standby offline](#) occurs.

31233 - HA Path Down**Alarm Group:** HA**Description:** High availability path loss of connectivity**Severity:** Major**Instance:** May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr**HA Score:** Normal**Auto Clear Seconds:** 300**OID:** comcolHaPathDownNotify**Recovery:**

1. If loss of communication between the active and standby servers over the secondary path is caused intentionally by maintenance activity, alarm can be ignored; it clears automatically when communication is restored between the two servers.
2. If communication fails at any other time, look for network connectivity issues on the secondary network.
3. Contact [My Oracle Support \(MOS\)](#).

31234 - Untrusted Time Upon Initialization**Alarm Group:** REPL**Description:** Upon system initialization, the system time is not trusted probably because NTP is misconfigured or the NTP servers are unreachable. There are often accompanying Platform alarms to guide correction. Generally, applications are not started if time is not believed to be correct on start-up. Recovery will often will require rebooting the server.**Severity:** Critical**Instance:** May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr**HA Score:** Normal**Auto Clear Seconds:** 0 (zero)**OID:** comcolUtrustedTimeOnInitNotify**Recovery:**

1. Correct NTP configuration.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

31235 - Untrusted Time After Initialization**Alarm Group:** REPL**Description:** After system initialization, the system time has become untrusted probably because NTP has reconfigured improperly, time has been manually changed, the NTP servers are unreachable, etc. There are often accompanying Platform alarms to guide correction. Generally, applications remaining

be running, but time-stamped data is likely incorrect, reports may be negatively affected, some behavior may be improper, etc.

Severity: Critical

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0

OID: comcolUtrustedTimePostInitNotify

Recovery:

1. Correct NTP configuration.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

31236 - HA Link Down

Alarm Group: HA

Description: High availability TCP link is down.

Severity: Critical

Instance: Remote node being connected to plus the path identifier

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolHaLinkDownNotify

Recovery:

1. If loss of communication between the active and standby servers over the specified path is caused intentionally by maintenance activity, alarm can be ignored; it clears automatically when communication is restored between the two servers.
2. If communication fails at any other time, look for network connectivity issues on the primary network and/or contact [My Oracle Support \(MOS\)](#).

31240 - Measurements collection fault

Alarm Group: SW

Description: The measurements collector (statclerk) is impaired by a s/w fault

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolMeasCollectorFaultNotify

Recovery:

1. Export event history for the given server and statclerk task.
2. Contact [My Oracle Support \(MOS\)](#).

31250 - RE port mapping fault

Alarm Group: SW

Description: The IP service port mapper (re.portmap) is impaired by a s/w fault

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolRePortMappingFaultNotify

Recovery:

This typically indicate a DNS Lookup failure. Verify all server hostnames are correct in the GUI configuration on the server generating the alarm.

31260 - SNMP Agent

Alarm Group: SW

Description: The SNMP agent (cmsnmpa) is impaired by a s/w fault

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: DbcomcolSnmpAgentNotify

Recovery:

1. Export event history for the given server and all processes.
2. Contact [My Oracle Support \(MOS\)](#).

31270 - Logging output

Alarm Group: SW

Description: Logging output set to Above Normal

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolLoggingOutputNotify

Recovery:

Extra diagnostic logs are being collected, potentially degrading system performance. Contact [My Oracle Support \(MOS\)](#).

31280 - HA Active to Standby transition

Alarm Group: HA

Description: HA active to standby activity transition

Severity: Info

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolActiveToStandbyTransNotify

Recovery:

1. If this alarm occurs during routine maintenance activity, it may be ignored.
2. Otherwise, contact [My Oracle Support \(MOS\)](#).

31281 - HA Standby to Active transition

Alarm Group: HA

Description: HA standby to active activity transition

Severity: Info

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolStandbyToActiveTransNotify

Recovery:

1. If this alarm occurs during routine maintenance activity, it may be ignored.
2. Otherwise, contact [My Oracle Support \(MOS\)](#).

31282 - HA Management Fault

Alarm Group: HA

Description: The HA manager (cmha) is impaired by a software fault.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolHaMgmtFaultNotify

Recovery:

Export event history for the given server and cmha task, then Contact [My Oracle Support \(MOS\)](#).

31283 - HA Server Offline

Alarm Group: HA

Description: High availability server is offline

Severity: Critical

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0

OID: comcolHaServerOfflineNotify

Recovery

1. If loss of communication between the active and standby servers is caused intentionally by maintenance activity, alarm can be ignored; it clears automatically when communication is restored between the two servers.
2. If communication fails at any other time, look for network connectivity issues and/or Contact [My Oracle Support \(MOS\)](#).

31284 - HA Remote Subscriber Heartbeat Warning

Alarm Group: HA

Description: High availability remote subscriber has not received a heartbeat within the configured interval.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolHaRemoteHeartbeatWarningNotify

Recovery:

1. No action required. This is a warning and can be due to transient conditions. The remote subscriber will move to another server in the cluster.

2. If there continues to be no heartbeat from the server, contact [My Oracle Support \(MOS\)](#).

31285 - HA Split Brain Recovery Entry

Alarm Group: HA

Description: High availability split brain recovery entered

Severity: Info

Instance: Cluster set key of the DC outputting the event

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolHaSbrEntryNotify

Recovery:

No action required; this is a status message generated when one or more unaccounted for nodes join the designated coordinators group.

31286 - HA Split Brain Recovery Plan

Alarm Group: HA

Description: High availability split brain recovery plan

Severity: Info

Instance: Names of HA Policies (as defined in HA policy configuration)

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolHaSbrPlanNotify

Recovery:

No action required; this is a status message output when the designated coordinator generates a new action plan during split brain recovery.

31287 - HA Split Brain Recovery Complete

Alarm Group: HA

Description: High availability split brain recovery complete

Severity: Info

Instance: Names of HA Policies (as defined in HA policy configuration)

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolHaSbrCompleteNotify

Recovery:

No action required; this is a status message output when the designated coordinator finishes running an action plan during split brain recovery.

31290 - HA Process Status

Alarm Group: HA

Description: HA manager (cmha) status

Severity: Info

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolHaProcessStatusNotify

Recovery:

1. If this alarm occurs during routine maintenance activity, it may be ignored.
2. Otherwise, contact [My Oracle Support \(MOS\)](#).

31291 - HA Election Status

Alarm Group: HA

Description: HA DC Election status

Severity: Info

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolHaElectionStatusNotify

Recovery:

1. If this alarm occurs during routine maintenance activity, it may be ignored.
2. Otherwise, contact [My Oracle Support \(MOS\)](#).

31292 - HA Policy Status

Alarm Group: HA

Description: HA Policy plan status

Severity: Info

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolHaPolicyStatusNotify

Recovery:

1. If this alarm occurs during routine maintenance activity, it may be ignored.
2. Otherwise, contact [My Oracle Support \(MOS\)](#).

31293 - HA Resource Link Status

Alarm Group: HA

Description: HA ResourceAgent Link status

Severity: Info

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolHaRaLinkStatusNotify

Recovery:

1. If this alarm occurs during routine maintenance activity, it may be ignored.
2. Otherwise, contact [My Oracle Support \(MOS\)](#).

31294 - HA Resource Status

Alarm Group: HA

Description: HA Resource registration status

Severity: Info

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolHaResourceStatusNotify

Recovery:

1. If this alarm occurs during routine maintenance activity, it may be ignored.
2. Otherwise, contact [My Oracle Support \(MOS\)](#).

31295 - HA Action Status

Alarm Group: HA

Description: HA Resource action status

Severity: Info

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolHaActionStatusNotify

Recovery:

1. If this alarm occurs during routine maintenance activity, it may be ignored.
2. Otherwise, contact [My Oracle Support \(MOS\)](#).

31296 - HA Monitor Status

Alarm Group: HA

Description: HA Monitor action status

Severity: Info

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolHaMonitorStatusNotify

Recovery:

1. If this alarm occurs during routine maintenance activity, it may be ignored.
2. Otherwise, contact [My Oracle Support \(MOS\)](#).

31297 - HA Resource Agent Info

Alarm Group: HA

Description: HA Resource Agent Info

Severity: Info

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolHaRaInfoNotify

Recovery:

1. If this alarm occurs during routine maintenance activity, it may be ignored.
2. Otherwise, contact [My Oracle Support \(MOS\)](#).

31298 - HA Resource Agent Detail

Alarm Group: HA

Description: Resource Agent application detailed information

Severity: Info

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolHaRaDetailNotify

Recovery:

1. If this alarm occurs during routine maintenance activity, it may be ignored.
2. Otherwise, contact [My Oracle Support \(MOS\)](#).

31299 - HA Notification Status

Alarm Group: HA

Description: HA Notification status

Severity: Info

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolHaNotificationNotify

Recovery:

No action required.

31300 - HA Control Status

Alarm Group: HA

Description: HA Control action status

Severity: Info

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 300

OID: comcolHaControlNotify

Recovery:

No action required.

32113 - Uncorrectable ECC memory error

Alarm Group: PLAT

Description: This alarm indicates that chipset has detected an uncorrectable (multiple-bit) memory error that the ECC (Error-Correcting Code) circuitry in the memory is unable to correct.

Severity: Critical

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdEccUncorrectableError

Recovery:

Contact [My Oracle Support \(MOS\)](#) to request hardware replacement.

32114 - SNMP get failure

Alarm Group: PLAT

Description: The server failed to receive SNMP information from the switch.

Severity: Critical

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdSNMPGetFailure

Recovery:

1. Use the following command to verify the switch is active: `ping switch1A/B` (this requires command line access).
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

32115 - TPD NTP Daemon Not Synchronized Failure

Alarm Group: PLAT

Description: This alarm indicates that the server's current time precedes the timestamp of the last known time the servers time was good.

Severity: Critical

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdNTPDaemonNotSynchronizedFailure

Recovery:

1. Verify NTP settings and that NTP sources can be reached.

2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

32116 - TPD Server's Time Has Gone Backwards

Alarm Group: PLAT

Description: This alarm indicates that the server's current time precedes the timestamp of the last known time the servers time was good.

Severity: Critical

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdNTPTimeGoneBackwards

Recovery:

1. Verify NTP settings and that NTP sources are providing accurate time.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

32117 - TPD NTP Offset Check Failure

Alarm Group: PLAT

Description: This alarm indicates the NTP offset of the server that is currently being synced to is greater than the critical threshold

Severity: Critical

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: ntpOffsetCheckFailure

Recovery:

Contact [My Oracle Support \(MOS\)](#).

32300 – Server fan failure

Alarm Group: PLAT

Description: This alarm indicates that a fan on the application server is either failing or has failed completely. In either case, there is a danger of component failure due to overheating.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdFanError

Recovery

Contact [My Oracle Support \(MOS\)](#).

32301 - Server internal disk error

Alarm Group: PLAT

Description: This alarm indicates the server is experiencing issues replicating data to one or more of its mirrored disk drives. This could indicate that one of the server's disks has either failed or is approaching failure.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdIntDiskError

Recovery

Contact [My Oracle Support \(MOS\)](#).

32302 – Server RAID disk error

Alarm Group: PLAT

Description: This alarm indicates that the offboard storage server had a problem with its hardware disks.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdRaidDiskError

Recovery

1. Determine if the hardware platform is PP5160.
 - Note:** SDM on the PP5160 platform uses raid0 configuration.
 - If the platform is a PP5160, no action is required.
2. Contact [My Oracle Support \(MOS\)](#).

32303 - Server Platform error

Alarm Group: PLAT

Description: This alarm indicates an error such as a corrupt system configuration or missing files.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdPlatformError

Recovery

Contact [My Oracle Support \(MOS\)](#) and provide the system health check output.

32304 - Server file system error

Alarm Group: PLAT

Description: This alarm indicates unsuccessful writing to at least one of the server's file systems.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdFileSystemError

Recovery

If the problem persists, contact [My Oracle Support \(MOS\)](#).

32305 - Server Platform process error

Alarm Group: PLAT

Description: This alarm indicates that either the minimum number of instances for a required process are not currently running or too many instances of a required process are running.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdPlatProcessError

Recovery

Contact [My Oracle Support \(MOS\)](#).

32307 - Server swap space shortage failure

Alarm Group: PLAT

Description: This alarm indicates that the server's swap space is in danger of being depleted. This is usually caused by a process that has allocated a very large amount of memory over time.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdSwapSpaceShortageError

Recovery

Contact [My Oracle Support \(MOS\)](#).

32308 - Server provisioning network error

Alarm Group: PLAT

Description: This alarm indicates that the connection between the server's ethernet interface and the customer network is not functioning properly.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdProvNetworkError

Recovery

1. Verify that a customer-supplied cable labeled TO CUSTOMER NETWORK is securely connected to the lower right port on the rear of the server, port of the quad-port card in PCI slot 9, to the appropriate server. Follow the cable to its connection point on the local network and verify this connection is also secure.
2. Test the customer-supplied cable labeled TO CUSTOMER NETWORK with an Ethernet Line Tester. If the cable does not test positive, replace it.
3. Have your network administrator verify that the network is functioning properly.
4. If no other nodes on the local network are experiencing problems and the fault has been isolated to the server or the network administrator is unable to determine the exact origin of the problem, contact [My Oracle Support \(MOS\)](#).

32312 - Server disk space shortage error**Alarm Group:** PLAT**Description:** This alarm indicates that one of the following conditions has occurred:

- A file system has exceeded a failure threshold, which means that more than 90% of the available disk storage has been used on the file system.
- More than 90% of the total number of available files have been allocated on the file system.
- A file system has a different number of blocks than it had when installed.

Severity: Major**Instance:** May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr**HA Score:** Normal**Auto Clear Seconds:** 0 (zero)**OID:** tpdDiskSpaceShortageError**Recovery**Contact [My Oracle Support \(MOS\)](#).**32313 - Server default route network error****Alarm Group:** PLAT**Description:** This alarm indicates that the default network route of the server is experiencing a problem.

Caution: When changing the network routing configuration of the server, verify that the modifications will not impact the method of connectivity for the current login session. The route information must be entered correctly and set to the correct values. Incorrectly modifying the routing configuration of the server may result in total loss of remote network access.

Severity: Major**Instance:** May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr**HA Score:** Normal**Auto Clear Seconds:** 0 (zero)**OID:** tpdDefaultRouteNetworkError**Recovery**Contact [My Oracle Support \(MOS\)](#).**32314 - Server temperature error****Alarm Group:** PLAT

Description: The internal temperature within the server is unacceptably high.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdServerTemperatureError

Recovery

1. Ensure that nothing is blocking the fan's intake. Remove any blockage.
2. Verify that the temperature in the room is normal. If it is too hot, lower the temperature in the room to an acceptable level.

Note: Be prepared to wait the appropriate period of time before continuing with the next step. Conditions need to be below alarm thresholds consistently for the alarm to clear. It may take about ten minutes after the room returns to an acceptable temperature before the alarm cleared.

3. If the problem has not been resolved, contact [My Oracle Support \(MOS\)](#).

32315 - Server mainboard voltage error

Alarm Group: PLAT

Description: This alarm indicates that one or more of the monitored voltages on the server mainboard have been detected to be out of the normal expected operating range.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdServerMainboardVoltageError

Recovery

Contact [My Oracle Support \(MOS\)](#).

32316 – Server power feed error

Alarm Group: PLAT

Description: This alarm indicates that one of the power feeds to the server has failed. If this alarm occurs in conjunction with any Breaker Panel alarm, there might be a problem with the breaker panel.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdPowerFeedError

Recovery

1. Verify that all the server power feed cables to the server that is reporting the error are securely connected.
2. Check to see if the alarm has cleared
 - If the alarm has been cleared, the problem is resolved.
 - If the alarm has not been cleared, continue with the next step.
3. Follow the power feed to its connection on the power source. Ensure that the power source is ON and that the power feed is properly secured.
4. Check to see if the alarm has cleared
 - If the alarm has been cleared, the problem is resolved.
 - If the alarm has not been cleared, continue with the next step.
5. If the power source is functioning properly and the wires are all secure, have an electrician check the voltage on the power feed.
6. Check to see if the alarm has cleared
 - If the alarm has been cleared, the problem is resolved.
 - If the alarm has not been cleared, continue with the next step.
7. If the problem has not been resolved, contact [My Oracle Support \(MOS\)](#).

32317 - Server disk health test error

Alarm Group: PLAT

Description: Either the hard drive has failed or failure is imminent.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdDiskHealthError

Recovery

1. Perform the recovery procedures for the other alarms that accompany this alarm.
2. If the problem has not been resolved, contact [My Oracle Support \(MOS\)](#).

32318 - Server disk unavailable error

Alarm Group: PLAT

Description: The smartd service is not able to read the disk status because the disk has other problems that are reported by other alarms. This alarm appears only while a server is booting.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdDiskUnavailableError

Recovery

Contact [My Oracle Support \(MOS\)](#).

32320 – Device interface error

Alarm Group: PLAT

Description: This alarm indicates that the IP bond is either not configured or down.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdDeviceIfError

Recovery

Contact [My Oracle Support \(MOS\)](#).

32321 – Correctable ECC memory error

Alarm Group: PLAT

Description: This alarm indicates that chipset has detected a correctable (single-bit) memory error that has been corrected by the ECC (Error-Correcting Code) circuitry in the memory.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdEccCorrectableError

Recovery

No recovery necessary. If the condition persists, contact [My Oracle Support \(MOS\)](#) to request hardware replacement.

32322 – Power Supply A error

Alarm Group: PLAT

Description: This alarm indicates that power supply 1 (feed A) has failed.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdPowerSupply1Error

Recovery

1. Verify that nothing is obstructing the airflow to the fans of the power supply.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

32323 – Power Supply B error

Alarm Group: PLAT

Description: This alarm indicates that power supply 2 (feed B) has failed.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdPowerSupply2Error

Recovery

1. Verify that nothing is obstructing the airflow to the fans of the power supply.
2. If the problem persists, contact [My Oracle Support \(MOS\)](#).

32324 – Breaker panel feed error

Alarm Group: PLAT

Description: This alarm indicates that the server is not receiving information from the breaker panel relays.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdBrkPnlFeedError

Recovery

1. Verify that the same alarm is displayed by multiple servers:
 - If this alarm is displayed by only one server, the problem is most likely to be with the cable or the server itself. Look for other alarms that indicate a problem with the server and perform the recovery procedures for those alarms first.
 - If this alarm is displayed by both serversmultiple servers, go to the next step.
2. Verify that the cables that connect the servers to the breaker panel are not damaged and are securely fastened to both the Alarm Interface ports on the breaker panel and to the serial ports on both servers.
3. If the problem has not been resolved, contact [My Oracle Support \(MOS\)](#) to request that the breaker panel be replaced.

32325 – Breaker panel breaker error

Alarm Group: PLAT

Description: This alarm indicates that a power fault has been identified by the breaker panel. The LEDs on the center of the breaker panel (see [Figure 15: Breaker Panel LEDs](#)) identify whether the fault occurred on the input power or the output power, as follows:

- A power fault on input power (power from site source to the breaker panel) is indicated by one of the LEDs in the PWR BUS A or PWR BUS B group illuminated Red. In general, a fault in the input power means that power has been lost to the input power circuit.

Note: LEDs in the PWR BUS A or PWR BUS B group that correspond to unused feeds are not illuminated; LEDs in these groups that are not illuminated do not indicate problems.
- A power fault on output power (power from the breaker panel to other frame equipment) is indicated by either BRK FAIL BUS A or BRK FAIL BUS B illuminated RED. This type of fault can be caused by a surge or some sort of power degradation or spike that causes one of the circuit breakers to trip.

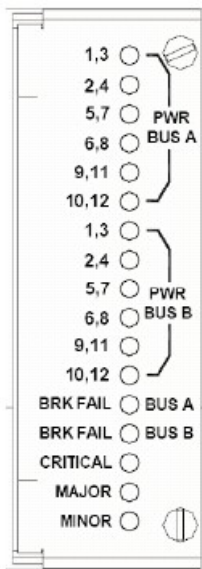


Figure 15: Breaker Panel LEDs

Description: This alarm indicates that a power fault has been identified by the breaker panel.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: TPDBrkPnlBreakerError

Recovery

1. Verify that the same alarm is displayed by multiple servers:
 - If this alarm is displayed by only one server, the problem is most likely to be with the cable or the server itself. Look for other alarms that indicate a problem with the server and perform the recovery procedures for those alarms first.
 - If this alarm is displayed by multiple servers, go to the next step.
2. Look at the breaker panel assignments and verify that the corresponding LED in the PWR BUS A group and the PWR BUS B group is illuminated Green.

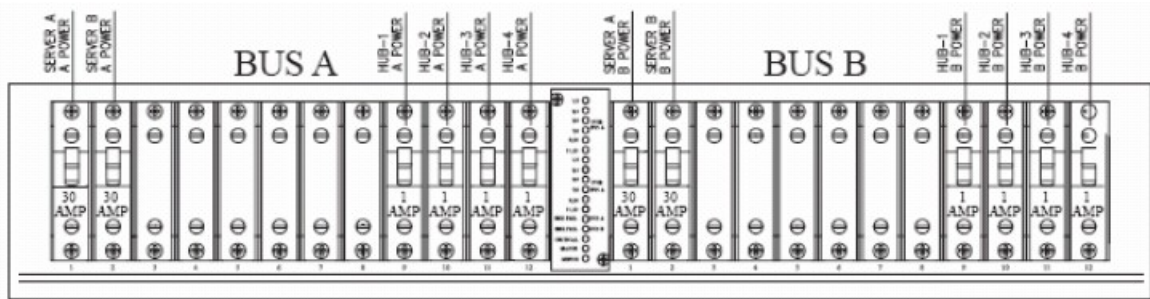


Figure 16: Breaker Panel Setting

If one of the LEDs in the PWR BUS A group or the PWR BUS B group is illuminated Red, a problem has been detected with the corresponding input power feed. Contact [My Oracle Support \(MOS\)](#)

3. Check the BRK FAIL LEDs for BUS A and for BUS B.
 - If one of the BRK FAIL LEDs is illuminated Red, then one or more of the respective Input Breakers has tripped. (A tripped breaker is indicated by the toggle located in the center position.) Perform the following steps to repair this issue:
 - a) For all tripped breakers, move the breaker down to the open (OFF) position and then back up to the closed (ON) position.
 - b) After all the tripped breakers have been reset, check the BRK FAIL LEDs again. If one of the BRK FAIL LEDs is still illuminated Red, Contact [My Oracle Support \(MOS\)](#)
 - If all of the BRK FAIL LEDs and all the LEDs in the PWR BUS A group and the PWR BUS B group are illuminated Green, continue with the next step.
 - If all of the BRK FAIL LEDs and all the LEDs in the PWR BUS A group and the PWR BUS B group are illuminated Green, there is most likely a problem with the serial connection between the server and the breaker panel. This connection is used by the system health check to monitor the breaker panel for failures. Verify that both ends of the labeled serial cables are properly secured. If any issues are discovered with these cable connections, make the necessary corrections and continue to the next step to verify that the alarm has been cleared, otherwise Contact [My Oracle Support \(MOS\)](#)
4. If the problem has not been resolved, contact [My Oracle Support \(MOS\)](#)

32326 – Breaker panel monitoring error

Alarm Group: PLAT

Description: This alarm indicates a failure in the hardware and/or software that monitors the breaker panel. This could mean there is a problem with the file I/O libraries, the serial device drivers, or the serial hardware itself.

Note: When this alarm occurs, the system is unable to monitor the breaker panel for faults. Thus, if this alarm is detected, it is imperative that the breaker panel be carefully examined for the existence of faults. The LEDs on the breaker panel will be the only indication of the occurrence of either alarm:

- 32324 – Breaker panel feed error
- 32325 – Breaker panel breaker error

until the Breaker Panel Monitoring Error has been corrected.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdBrkPnlMntError

Recovery

1. Verify that the same alarm is displayed by multiple servers:
 - If this alarm is displayed by only one server, the problem is most likely to be with the cable or the server itself. Look for other alarms that indicate a problem with the server and perform the recovery procedures for those alarms first.
 - If this alarm is displayed by both multiple servers, go to the next step.
2. Verify that both ends of the labeled serial cables are secured properly (for locations of serial cables, see the appropriate hardware manual).
3. If the alarm has not been cleared, contact [My Oracle Support \(MOS\)](#).

32327 – Server HA Keepalive error

Alarm Group: PLAT

Description: This alarm indicates that heartbeat process has detected that it has failed to receive a heartbeat packet within the timeout period.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdHaKeepaliveError

Recovery

1. Determine if the mate server is currently down and bring it up if possible.
2. Determine if the keepalive interface is down.
3. Determine if heartbeat is running (service TKLCha status).

Note: This step may require command line ability.
4. Contact [My Oracle Support \(MOS\)](#).

32331 – HP disk problem

Alarm Group: PLAT

Description: This major alarm indicates that there is an issue with either a physical or logical disk in the HP disk subsystem. The message will include the drive type, location, slot and status of the drive that has the error.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdHpDiskProblem

Recovery

Contact [My Oracle Support \(MOS\)](#).

32332 – HP Smart Array controller problem

Alarm Group: PLAT

Description: This major alarm indicates that there is an issue with an HP disk controller. The message will include the slot location, the component on the controller that has failed, and status of the controller that has the error.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdHpDiskCtrlrProblem

Recovery

Contact [My Oracle Support \(MOS\)](#).

32333 – HP hpacucliStatus utility problem

Alarm Group: PLAT

Description: This major alarm indicates that there is an issue with the process that caches the HP disk subsystem status. This usually means that the hpacucliStatus daemon is either not running, or hung.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdHPACUCLIPProblem

Recovery

Contact [My Oracle Support \(MOS\)](#).

32335 - Switch link down error**Alarm Group:** PLAT**Description:** The link is down.**Severity:** Major**Instance:** May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr**HA Score:** Normal**Auto Clear Seconds:** 0 (zero)**OID:** tpdSwitchLinkDownError**Recovery**

1. Verify the cabling between the port and the remote side.
2. Verify networking on the remote end.
3. If the problem persists, contact [My Oracle Support \(MOS\)](#) who should verify port settings on both the server and the switch.

32336 - Half Open Socket Limit**Alarm Group:** PLAT**Description:** This alarm indicates that the number of half open TCP sockets has reached the major threshold. This problem is caused by a remote system failing to complete the TCP 3-way handshake.**Severity:** Major**Instance:** May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr**HA Score:** Normal**Auto Clear Seconds:** 0 (zero)**OID:** tpdHalfOpenSockLimit**Recovery**

Contact [My Oracle Support \(MOS\)](#).

32339 - Max pid limit**Alarm Group:** PLAT**Description:** This alarm indicates that the maximum number of running processes has reached the major threshold.**Severity:** Major**Instance:** May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr**HA Score:** Normal

Auto Clear Seconds: 0 (zero)

OID: tpdMaxPidLimit

Recovery:

Contact [My Oracle Support \(MOS\)](#).

32340 - Server NTP Daemon Lost Synchronization For Extended Time

Alarm Group: PLAT

Description: This alarm indicates that the server is not synchronized to an NTP source and has not been synchronized for an extended number of hours and has reached the major threshold.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdNTPDaemonNotSynchronizedError

Recovery:

1. Verify NTP settings and that NTP sources can be reached.
2. Contact [My Oracle Support \(MOS\)](#).

32341 - Server NTP Daemon Never Synchronized Error

Alarm Group: PLAT

Description: This alarm indicates that the server is not synchronized to an NTP source and has never been synchronized since the last configuration change.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdNTPDaemonNeverSynchronized

Recovery:

1. Verify NTP settings and that NTP sources can be reached.
2. Contact [My Oracle Support \(MOS\)](#).

32342 - NTP Offset Check Error

Alarm Group: PLAT

Description: This alarm indicates the NTP offset of the server that is currently being synced to is greater than the major threshold.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: ntpOffsetCheckError

Recovery:

1. Verify NTP settings and that NTP are providing accurate time.
2. Contact [My Oracle Support \(MOS\)](#).

32343 - RAID disk problem

Alarm Group: PLAT

Description: This alarms indicates that physical disk or logical volume on RAID controller is not in optimal state as reported by syscheck.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdDiskProblem

Recovery:

Contact [My Oracle Support \(MOS\)](#).

32344 - RAID controller problem

Alarm Group: PLAT

Description: This alarms indicates that RAID controller needs intervention.

Severity: Major

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdDiskCtrlrProblem

Recovery:

Contact [My Oracle Support \(MOS\)](#).

32345 - Server Upgrade snapshot(s) invalid**Alarm Group:** PLAT**Description:** This alarm indicates that upgrade snapshot(s) are invalid and backout is no longer possible.**Severity:** Major**Instance:** May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr**HA Score:** Normal**Auto Clear Seconds:** 0 (zero)**OID:** tpdUpgradeSnapshotInvalid**Recovery:**

1. Run accept to remove invalid snapshot(s) and clear alarms.
2. Contact [My Oracle Support \(MOS\)](#)

32346 - Server Hardware Problem**Alarm Group:** PLAT**Description:** This alarms indicates that OEM hardware management service reports an error.**Severity:** Major**Instance:** May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr**HA Score:** Normal**Auto Clear Seconds:** 0 (zero)**OID:** tpdOEMHardware**Recovery:**

Contact [My Oracle Support \(MOS\)](#)

32347 - Oracle hwmgmtcliStatus Problem**Alarm Group:** PLAT**Description:** This alarms indicates the hwmgmtcliStatus daemon is not running or is not responding.**Severity:** Major**Instance:** May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr**HA Score:** Normal**Auto Clear Seconds:** 0 (zero)**OID:** tpdHWMGMTCLIProblem

Recovery:

Contact [My Oracle Support \(MOS\)](#)

32500 – Server disk space shortage warning

Alarm Group: PLAT

Description: This alarm indicates that one of the following conditions has occurred:

- A file system has exceeded a warning threshold, which means that more than 80% (but less than 90%) of the available disk storage has been used on the file system.
- More than 80% (but less than 90%) of the total number of available files have been allocated on the file system.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdDiskSpaceShortageWarning

Recovery

Contact [My Oracle Support \(MOS\)](#).

32501 – Server application process error

Alarm Group: PLAT

Description: This alarm indicates that either the minimum number of instances for a required process are not currently running or too many instances of a required process are running.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdApplicationProcessError

Recovery

Contact [My Oracle Support \(MOS\)](#).

32502 – Server hardware configuration error

Alarm Group: PLAT

Description: This alarm indicates that one or more of the server's hardware components are not in compliance with specifications (refer to the appropriate hardware manual).

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdHardwareConfigError

Recovery

Contact [My Oracle Support \(MOS\)](#).

32505 – Server swap space shortage warning

Alarm Group: PLAT

Description: This alarm indicates that the swap space available on the server is less than expected. This is usually caused by a process that has allocated a very large amount of memory over time.

Note: For this alarm to clear, the underlying failure condition must be consistently undetected for a number of polling intervals. Therefore, the alarm may continue to be reported for several minutes after corrective actions are completed.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdSwapSpaceShortageWarning

Recovery

Contact [My Oracle Support \(MOS\)](#).

32506 – Server default router not defined

Alarm Group: PLAT

Description: This alarm indicates that the default network route is either not configured or the current configuration contains an invalid IP address or hostname.



CAUTION

Caution: When changing the server's network routing configuration it is important to verify that the modifications will not impact the method of connectivity for the current login session. It is also crucial that this information not be entered incorrectly or set to improper values. Incorrectly modifying the server's routing configuration may result in total loss of remote network access.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdDefaultRouteNotDefined

Recovery

Contact [My Oracle Support \(MOS\)](#).

32507 – Server temperature warning

Alarm Group: PLAT

Description: This alarm indicates that the internal temperature within the server is outside of the normal operating range. A server Fan Failure may also exist along with the Server Temperature Warning.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdServerTemperatureWarning

Recovery

1. Ensure that nothing is blocking the fan's intake. Remove any blockage.
2. Verify that the temperature in the room is normal. If it is too hot, lower the temperature in the room to an acceptable level.

Note: Be prepared to wait the appropriate period of time before continuing with the next step. Conditions need to be below alarm thresholds consistently for the alarm to clear. The alarm may take up to five minutes to clear after conditions improve. It may take about ten minutes after the room returns to an acceptable temperature before syscheck shows the alarm cleared.

3. Replace the filter (refer to the appropriate hardware manual).

Note: Be prepared to wait the appropriate period of time before continuing with the next step. Conditions need to be below alarm thresholds consistently for the alarm to clear. The alarm may take up to five minutes to clear after conditions improve. It may take about ten minutes after the filter is replaced before syscheck shows the alarm cleared.

4. If the problem has not been resolved, contact [My Oracle Support \(MOS\)](#).

32508 – Server core file detected

Alarm Group: PLAT

Description: This alarm indicates that an application process has failed and debug information is available.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdServerCoreFileDetected

Recovery

Contact [My Oracle Support \(MOS\)](#).

32509 – Server NTP Daemon not synchronized

Alarm Group: PLAT

Description: This alarm indicates that the NTP daemon (background process) has been unable to locate a server to provide an acceptable time reference for synchronization.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdNTPDaemonNotSynchronizedWarning

Recovery

Contact [My Oracle Support \(MOS\)](#).

32510 – CMOS battery voltage low

Alarm Group: PLAT

Description: The presence of this alarm indicates that the CMOS battery voltage has been detected to be below the expected value. This alarm is an early warning indicator of CMOS battery end-of-life failure which will cause problems in the event the server is powered off.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdCMOSBatteryVoltageLow

Recovery

Contact [My Oracle Support \(MOS\)](#).

32511 – Server disk self test warning

Alarm Group: PLAT

Description: A non-fatal disk issue (such as a sector cannot be read) exists.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdSmartTestWarn

Recovery

Contact [My Oracle Support \(MOS\)](#).

32512 – Device warning

Alarm Group: PLAT

Description: This alarm indicates that either we are unable to perform an snmpget command on the configured SNMP OID or the value returned failed the specified comparison operation.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdDeviceWarn

Recovery

Contact [My Oracle Support \(MOS\)](#).

32513 – Device interface warning

Alarm Group: PLAT

Description: This alarm can be generated by either an SNMP trap or an IP bond error.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdDeviceIfWarn

Recovery

Contact [My Oracle Support \(MOS\)](#).

32514 – Server reboot watchdog initiated

Alarm Group: PLAT

Description: This alarm indicates that the hardware watchdog was not strobed by the software and so the server rebooted the server. This applies to only the last reboot and is only supported on a T1100 application server.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdWatchdogReboot

Recovery

Contact [My Oracle Support \(MOS\)](#).

32515 – Server HA failover inhibited

Alarm Group: PLAT

Description: This alarm indicates that the server has been inhibited and therefore HA failover is prevented from occurring.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdHaInhibited

Recovery

Contact [My Oracle Support \(MOS\)](#).

32516 – Server HA Active to Standby transition

Alarm Group: PLAT

Description: This alarm indicates that the server is in the process of transitioning HA state from Active to Standby.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdHaActiveToStandbyTrans

Recovery

Contact [My Oracle Support \(MOS\)](#).

32517 – Server HA Standby to Active transition

Alarm Group: PLAT

Description: This alarm indicates that the server is in the process of transitioning HA state from Standby to Active.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdHaStandbyToActiveTrans

Recovery

Contact [My Oracle Support \(MOS\)](#).

32518 – Platform Health Check failure

Alarm Group: PLAT

Description: This alarm is used to indicate a configuration error.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdHealthCheckFailed

Recovery

Contact [My Oracle Support \(MOS\)](#).

32519 – NTP Offset Check failure

Alarm Group: PLAT

Description: This minor alarm indicates that time on the server is outside the acceptable range (or offset) from the NTP server. The Alarm message will provide the offset value of the server from the NTP server and the offset limit that the application has set for the system.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: ntpOffsetCheckWarning

Recovery

Contact [My Oracle Support \(MOS\)](#).

32520 – NTP Stratum Check failure

Alarm Group: PLAT

Description: This alarm indicates that NTP is syncing to a server, but the stratum level of the NTP server is outside of the acceptable limit. The Alarm message will provide the stratum value of the NTP server and the stratum limit that the application has set for the system.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: ntpStratumCheckFailed

Recovery

Contact [My Oracle Support \(MOS\)](#).

32521 – SAS Presence Sensor Missing

Alarm Group: PLAT

Description: This alarm indicates that the T1200 server drive sensor is not working.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: sasPresenceSensorMissing

Recovery

Contact [My Oracle Support \(MOS\)](#) to get a replacement server.

32522 – SAS Drive Missing

Alarm Group: PLAT

Description: This alarm indicates that the number of drives configured for this server is not being detected.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: sasDriveMissing

Recovery

Contact [My Oracle Support \(MOS\)](#) to determine whether the issue is with a failed drive or failed configuration.

32524 – HP disk resync

Alarm Group: PLAT

Description: This minor alarm indicates that the HP disk subsystem is currently resynchronizing after a failed or replaced drive, or some other change in the configuration of the HP disk subsystem. The output of the message will include the disk that is resynchronizing and the percentage complete. This alarm should eventually clear once the resync of the disk is completed. The time it takes for this is dependent on the size of the disk and the amount of activity on the system.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdHpDiskResync

Recovery

Contact [My Oracle Support \(MOS\)](#).

32525 – Telco Fan Warning

Alarm Group: PLAT

Description: This alarm indicates that the Telco switch has detected an issue with an internal fan.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdTelcoFanWarning

Recovery

1. Contact [My Oracle Support \(MOS\)](#) to get a replacement switch. Verify the ambient air temperature around the switch is as low as possible until the switch is replaced.
2. [My Oracle Support \(MOS\)](#) personnel can perform an snmpget command or log into the switch to get detailed fan status information.

32526 – Telco Temperature Warning

Alarm Group: PLAT

Description: This alarm indicates that the Telco switch has detected the internal temperature has exceeded the threshold.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdTelcoTemperatureWarning

Recovery

1. Lower the ambient air temperature around the switch as low as possible.
2. If problem persists, contact [My Oracle Support \(MOS\)](#).

32527 – Telco Power Supply Warning

Alarm Group: PLAT

Description: This alarm indicates that the Telco switch has detected that one of the duplicate power supplies has failed.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdTelcoPowerSupplyWarning

Recovery

1. Verify breaker wasn't tripped.
2. If breaker is still good and problem persists, contact [My Oracle Support \(MOS\)](#) who can perform a **snmpget** command or log into the switch to determine which power supply is failing. If the power supply is bad, the switch must be replaced.

32528 – Invalid BIOS value

Alarm Group: PLAT

Description: This alarm indicates that the HP server has detected that one of the setting for either the embedded serial port or the virtual serial port is incorrect.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdInvalidBiosValue

Recovery

Change the BIOS values to the expected values which involves re-booting the server. Contact [My Oracle Support \(MOS\)](#) for directions on changing the BIOS.

32529 – Server Kernel Dump File Detected

Alarm Group: PLAT

Description: This alarm indicates that the kernel has crashed and debug information is available.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdServerKernelDumpFileDetected

Recovery

Contact [My Oracle Support \(MOS\)](#).

32530 – Server Upgrade Fail Detected

Alarm Group: PLAT

Description: This alarm indicates that a TPD upgrade has failed.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: pdServerUpgradeFailed

Recovery

Contact [My Oracle Support \(MOS\)](#).

32531 – Half Open Socket Warning

Alarm Group: PLAT

This alarm indicates that the number of half open TCP sockets has reached the major threshold. This problem is caused by a remote system failing to complete the TCP 3-way handshake.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdHalfOpenSocketWarning

Recovery

Contact [My Oracle Support \(MOS\)](#).

32532 – Server Upgrade Pending Accept/Reject

Alarm Group: PLAT

Description: This alarm indicates that an upgrade occurred but has not been accepted or rejected yet.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdServerUpgradePendingAccept

Recovery

Follow the steps in the application's upgrade procedure for accepting or rejecting the upgrade.

32533 - Max pid warning

Alarm Group: PLAT

Description: This alarm indicates that the maximum number of running processes has reached the minor threshold.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdMaxPidWarning

Recovery:

Contact [My Oracle Support \(MOS\)](#).

32534 - NTP Source Server Is Not Able To Provide Correct Time

Alarm Group: PLAT

Description: This alarm indicates that an NTP source has been rejected by the NTP daemon and is not being considered as a time source.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdNTPSourceIsBad

Recovery:

1. Verify NTP settings and that NTP sources are providing accurate time.
2. Contact [My Oracle Support \(MOS\)](#).

32535 - RAID disk resync

Alarm Group: PLAT

Description: This alarm indicates that the RAID logical volume is currently resyncing after a failed/replaced drive, or some other change in the configuration. The output of the message will include the disk that is resyncing. This alarm should eventually clear once the resync of the disk is completed. The time it takes for this is dependent on the size of the disk and the amount of activity on the system (rebuild of 600G disks without any load takes about 75min).

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdDiskResync

Recovery:

If this alarm persists for several hours (depending on a load of a server rebuild of array can take multiple hours to finish), contact [My Oracle Support \(MOS\)](#).

32536 - Server Upgrade snapshot(s) warning

Alarm Group: PLAT

Description: This alarm indicates that upgrade snapshot(s) are above configured threshold and either accept or reject of LVM upgrade has to be run soon, otherwise snapshots will become full and invalid.

Severity: Minor

Instance: May include AlarmLocation, AlarmId, AlarmState, AlarmSeverity, and bindVarNamesValueStr

HA Score: Normal

Auto Clear Seconds: 0 (zero)

OID: tpdUpgradeSnapshotWarning

Recovery:

1. Run accept or reject of current LVM upgrade before snapshots become invalid.
2. Contact [My Oracle Support \(MOS\)](#)

Chapter 4

Key Performance Indicators (KPIs)

Topics:

- [General KPIs information.....243](#)
- [List of KPIs.....245](#)

This section provides general information about KPIs, and lists the KPIs that can appear on the Status & Manage KPIs GUI page.

General KPIs information

This section provides general information about KPIs, the Status and Manage KPI page, and how to view KPIs.

KPIs overview

Key Performance Indicators (KPIs) allow the user to monitor system performance data, including CPU, memory, swap space, and uptime per server. This performance data is collected from all servers within the defined topology.

The KPI display function resides on all OAM servers. Servers that provide a GUI connection rely on KPI information merged to that server. The Network OAMP servers maintain status information for all servers in the topology. System OAM servers have reliable information only for servers within the same network element.

The Status and Manage KPIs page displays performance data for the entire system. KPI data for the entire system is updated every 60 seconds. If data is not currently being collected for a particular server, the KPI for that server will be shown as Unk for "Unknown".

KPIs

The **Status & Manage > KPIs** page displays KPIs for the entire system. KPIs for the server and its applications are displayed on separate tabs. The application KPIs displayed may vary according to whether you are logged in to an NOAMP server or an SOAM server.

Viewing KPIs

Use this procedure to view KPI data.

1. Select **Status & Manage > KPIs**.

The **Status & Manage KPIs** page appears with the **Server** tab displayed. For details about the KPIs displayed on this page, see the application documentation.

2. Click to select an application tab to see KPI data relevant to the application.

Note: The application KPIs displayed may vary according to whether you are logged in to an NOAMP server or an SOAM server. Collection of KPI data is handled solely by NOAMP servers in systems that do not support SOAMs.

KPIs data export elements

This table describes the elements on the **KPIs Export** page.

Table 17: Schedule KPI Data Export Elements

Element	Description	Data Input Notes
Export Frequency	Frequency at which the export occurs	Format: Radio button Range: Fifteen Minutes, Hourly, Once, Weekly, or Daily Default: Once
Task Name	Name of the scheduled task	Format: Textbox 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	Description of the scheduled task	Format: Textbox Range: Maximum length is 255 characters; alphanumeric (a-z, A-Z, and 0-9) and minus sign (-). Description must begin with an alphanumeric character.
Minute	If hourly or fifteen minutes is selected for Upload Frequency, this is the minute of each hour when the data will be written to the export directory.	Format: Scrolling list Range: 0 to 59 Default: 0
Time of Day	Time of day the export occurs	Format: Time textbox Range: 15-minute increments Default: 12:00 AM
Day of Week	Day of week on which the export occurs	Format: Radio button Range: Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, or Saturday Default: Sunday

Exporting KPIs

You can schedule periodic exports of security log data from the **KPIs** page. KPI data can be exported immediately, or you can schedule exports to occur daily or weekly. If filtering has been applied in the **KPIs** 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](#).

Use this procedure to schedule a data export task.

1. Select **Status & Manage > KPIs**.

The **KPIs** page appears.

2. If necessary, specify filter criteria and click **Go**.
The KPIs are displayed according to the specified criteria.
3. Click **Export**.
The **Schedule KPI Data Export** page appears.
4. Enter the **Task Name**.
For more information about **Task Name**, or any field on this page, see [KPIs data export elements](#).
5. Select the **Export Frequency**.
6. If you selected Hourly, specify the **Minutes**.
7. Select the **Time of Day**.

Note: **Time of Day** is not an option if **Export Frequency** equals **Once**.

8. Select the **Day of Week**.

Note: **Day of Week** is not an option if **Export Frequency** equals **Once**.

9. Click **OK** or **Apply** to initiate the KPI export task.

From the **Status & Manage > Files** page, you can view a list of files available for download, including the file you exported during this procedure. For more information, see [Displaying the file list](#).

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

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

List of KPIs

This section of the document provides a list of all KPIs that can appear on the KPI page. They are listed here in tables by KPI type.

KPIs server elements

This table describes KPIs that appear regardless of server role.

Table 18: KPIs Server Elements

KPIs Status Element	Description
Network Element	The network element name (set up on the Configuration > Network Elements page) associated with each Server Hostname.
Server Hostname	The server hostname set up on the Configuration > Servers page. All servers in the system are listed here.
Server Indicators:	
CPU	Percentage utilization of all processors on the server by all software as measured by the operating system.
RAM	Percentage utilization of physical memory on the server by all software as measured by TPD.
Swap	Percentage utilization of swap space on the server by all software as measured by TPD.
Uptime	The total amount of time the server has been running.

Process-based KPIs

Table 19: Process-based KPIs

Variable	Description
udr.Cpu	CPU usage of udr process
udr.MemHeap	Heap memory usage of udr process
udr.MemBasTotal	Memory usage of the udr process
udr.MemPerTotal	Percent memory usage of udr process
udrbe.Cpu	CPU usage of udrbe process
udrbe.MemHeap	Heap memory usage of udrbe process
udrbe.MemBasTotal	Memory usage of the udrbe process
udrbe.MemPerTotal	Percent memory usage of udrbe process
provimport.Cpu	CPU usage of provimport process
provimport.MemHeap	Heap memory usage of provimport process
provimport.MemBasTotal	Memory usage of the provimport process
provimport.MemPerTotal	Percent memory usage of provimport process
provexport.Cpu	CPU usage of provexport process

Key Performance Indicators (KPIs)

Variable	Description
provexport.MemHeap	Heap memory usage of provexport process
provexport.MemBasTotal	Memory usage of the provexport process
provexport.MemPerTotal	Percent memory usage of provexport process
ras.Cpu	CPU usage of ras process
ras.MemHeap	Heap memory usage of ras process
ras.MemBasTotal	Memory usage of the ras process
ras.MemPerTotal	Percent memory usage of ras process
xsas.Cpu	CPU usage of xsas process
xsas.MemHeap	Heap memory usage of xsas process
xsas.MemBasTotal	Memory usage of the xsas process
xsas.MemPerTotal	Percent memory usage of xsas process
era.Cpu	CPU usage of era process
era.MemHeap	Heap memory usage of era process
era.MemBasTotal	Memory usage of the era process
era.MemPerTotal	Percent memory usage of era process

UDRBE KPIs

Table 20: UDRBE KPIs

Variable	Description
RxAeProvCreateMsgsRate	Number of requests received via the provisioning interface where the subscriber was unknown and auto-enrollment was triggered to create the subscriber per second
RxAeProvCreateSubSuccessRate	Number of auto-enrolled subscribers created while provisioning non-profile entity data per second
RxAeShCreateSubSuccessRate	Number of auto-enrolled subscribers created via the Sh interface per second
RxAeShDeleteSubMsgs	Number of unsubscribe requests received via the Sh interface that triggered the removal of an auto-enrolled subscriber per second
RxAeShDeleteSubSuccess	Number of auto-enrolled subscribers deleted via the Sh interface per second
RxAeShPurCreateMsgsRate	Number of update requests received via the Sh interface where the subscriber was unknown and

Key Performance Indicators (KPIs)

Variable	Description
	auto-enrollment was triggered to create the subscriber per second
RxAeShSnrCreateMsgsRate	Number of subscribe requests received via the Sh interface where the subscriber was unknown and auto-enrollment was triggered to create the subscriber per second
RxUdrBeReadMsgsRate	The number of read requests (across all interfaces) that have been received per second
RxUdrBeUpdateMsgsRate	The number of update requests (across all interfaces) that have been received per second
RxUdrNmNotifAckAsAvailableRate	The number of notification requests (across all interfaces) that have been successfully sent to the AS per second
RxUdrNmNotifAckAsUnavailableRate	The number of notification requests (across all interfaces) that failed to be sent to the AS per second
RxUdrSmSubscribeMsgsRate	The number of subscribe requests (across all interfaces) that have been received per second
RxUdrSmUnsubscribeMsgsRate	The number of unsubscribe requests (across all interfaces) that have been received per second
TxAeShDeleteSubSuccessRate	Number of auto-enrolled subscribers deleted via the Sh Interface per second
TxUdrBeReadReqSuccessRate	The number of read requests (across all interfaces) that have been successfully processed per second
TxUdrBeUpdateReqSuccessRate	The number of update requests (across all interfaces) that have been successfully processed per second
TxUdrNmNotifSentRate	The number of notification requests (across all interfaces) that have been sent per second
TxUdrSmSubscribeReqSuccessRate	The number of subscribe requests (across all interfaces) that have been successfully processed per second
TxUdrSmUnsubscribeReqSuccessRate	The number of unsubscribe requests (across all interfaces) that have been successfully processed per second

UDRFE KPIs

Table 21: UDRFE KPIs

Variable	Description
RxRequestAllRate	The number of signaling requests that have been received per second.

Key Performance Indicators (KPIs)

Variable	Description
RxRequestFailedRate	The number of signaling requests that have failed to be processed due to errors and an error was returned per second.
RxRequestSuccessfulRate	The number of signaling requests that have been successfully processed and a Diameter Successful response (2001) was received per second.
RxResponseAllRate	The number of signaling responses that have been received per second.
TxRequestAllRate	The number of signaling requests sent per second
TxRequestFailedAllRate	The number of requests that have not received successful responses per second.
TxRequestSuccessfulAllRate	The number of requests that have received successful responses per second.
TxResponseAllRate	The number of signaling responses sent per second.

UDR RAS and XSAS Provisioning Related KPIs

Table 22: Provisioning KPIs

Variable	Description
ProvMsgsImportedRate	The number of provisioning messages imported per second
ProvTxnCommittedRate	The number of provisioning transactions that have been successfully committed per second to the database (memory and on disk) on the active server of the primary UDR cluster
RxRasProvConnection	The number of provisioning client connections currently established. A single connection includes a client successfully establishing a TCP/IP connection, sending a provisioning connect message, and receiving a successful response.
RxRasProvMsgsReceivedRate	The number of provisioning messages that have been received per second
RxRasProvMsgsSuccessfulRate	The number of provisioning messages that have been successfully processed per second
RxRasProvMsgsFailedRate	The number of provisioning messages that have failed to be processed due to errors per second
RxRasProvMsgsSentRate	The number of provisioning messages sent per second
RxRasProvMsgsDiscardedRate	The number of provisioning messages discarded per second. Provisioning messages are discarded because the

Key Performance Indicators (KPIs)

Variable	Description
	connection is shut down, the server is shut down, the server role switches from active to standby, or the transaction does not become durable within the allowed amount of time.
RxXsasProvConnection	The number of provisioning client connections currently established. A single connection includes a client having successfully established a TCP/IP connection, sent a provisioning connect message, and having received a successful response.
RxXsasProvMsgsReceivedRate	The number of provisioning messages that have been received per second
RxXsasProvMsgsSuccessfulRate	The number of provisioning messages that have been successfully processed per second
RxXsasProvMsgsFailedRate	The number of provisioning messages that have failed to be processed due to errors per second
RxXsasProvMsgsSentRate	The number of provisioning messages sent per second
RxXsasProvMsgsDiscardedRate	The number of provisioning messages discarded per second. Provisioning messages are discarded because the connection is shut down, the server is shut down, the server role switches from active to standby, or the transaction does not become durable within the allowed amount of time.
RxXsasProvTxnTotalRate	The number of provisioning SOAP transactions received per second
TxProvTxnAbortedRate	The number of provisioning transactions that were aborted due to retry limit per second
TxProvTxnFailedRate	The number of provisioning transactions that have failed to be started or committed due to errors per second
TxProvTxnNonDurable	The number of transactions that have been committed, but are not yet durable. Responses for the associated requests are not sent until the transaction has become durable
TxXsasProvTxnAbortedRate	The number of provisioning SOAP transactions that were aborted due to retry limit per second
TxXsasProvTxnFailedRate	The number of provisioning SOAP transactions that have failed to be started or committed, due to errors per second
XsasProvTxnCommittedRate	The number of provisioning SOAP transactions that have been successfully committed per second to the database

Chapter 5

Measurements

Topics:

- [General measurements information.....252](#)
- [List of measurements.....257](#)

This section provides general information about measurements (including measurement procedures), and lists the measurements that display on measurement reports.

General measurements information

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

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, i.e. 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 (NOAMP, 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.

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).

Measurement IDs

Measurement IDs are categorized using a 2-character prefix in the Measurement tag. Possible prefixes include:

- **Rx:** The measurement is associated with the processing of an incoming message event. This can be the actual count of a particular message received or an event associated with processing of an incoming message.

- **Tx:** The measurement is associated with the processing of an outgoing message event. This can be the actual count of a particular message sent or an event associated with the outgoing message.
- **Tm:** The measurement is associated with the total duration of a particular condition or state during the measurement interval or the min/max/average duration of individual occurrences of a particular condition or state. All Tm measurement values are reported in microseconds.
- **Ev:** The measurement is associated with an event which is not predominantly associated with incoming or outgoing message processing.

Measurement elements

This table describes the elements on the **Measurements Report** page.

Table 23: Measurements Elements

Element	Description	Data Input Notes
Scope	<p>Network Elements, Server Groups, Resource Domains, Places and Place Associations for which the measurements report can be run.</p> <p>Note: Measurements for SOAM network elements are not available in systems that do not support SOAMs.</p>	<p>Format: Pulldown list</p> <p>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</p> <p>Note: If no selection is made, the default scope is Entire Network.</p> <p>Default: Entire Network</p>
Report	A selection of reports	<p>Format: Pulldown list</p> <p>Range: Varies depending on application</p> <p>Default: Group</p>
Column Filter	The characteristics for filtering the column display	<p>Format: Pulldown list</p> <p>Range: Sub-measurement</p> <p>Sub-measurement Ranges:</p> <ul style="list-style-type: none"> • Like: A pattern-matching distinction for sub-measurement name, for example, 123* matches any sub-measurement that begins with 123. • In: A list-matching distinction for sub-measurement ID, for example, 3,4,6-10 matches only sub-measurements 3, 4, and 6 through 10.

Element	Description	Data Input Notes
		Default: None
Time Range	The interval of time for which the data is being reported, beginning or ending on a specified date.	Format: Pulldown list Range: Days, Hours, Minutes, Seconds Interval Reference Point: Ending, Beginning Default: Days

Generating a measurements report

Use this procedure to generate and view a measurements report.

1. Select **Measurements > Report**.

The **Measurements Report** page appears.

2. Select the **Scope**.

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

3. Select the **Report**.

4. Select the **Interval**.

5. Select the **Time Range**.

6. Select **Beginning** or **Ending** as the **Time Range** interval reference point.

7. Select the **Beginning** or **Ending** date.

8. Click **Go**.

The report is generated.

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.

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

Measurements data export elements

This table describes the elements on the **Measurements Report Export** page.

Table 24: Schedule Measurement Data Export Elements

Element	Description	Data Input Notes
Task Name	Name of the scheduled task	Format: Textbox

Element	Description	Data Input Notes
		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	Description of the scheduled task	Format: Textbox 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	Frequency at which the export occurs	Format: Radio button Range: Fifteen Minutes, Hourly, Once, Weekly, or Daily Default: Once
Minute	If hourly or fifteen minutes is selected for Upload Frequency, this is the minute of each hour when the data will be written to the export directory.	Format: Scrolling list Range: 0 to 59 Default: 0
Time of Day	Time of day the export occurs	Format: Time textbox Range: 15-minute increments Default: 12:00 AM
Day of Week	Day of week on which the export occurs	Format: Radio button Range: Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, or Saturday Default: Sunday

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](#).

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 > 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 > 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. For more information, see [Opening a file](#). 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 > Tasks** page, you can view a list of files available for download, including the file you exported during this procedure. For more information, see [Displaying the file list](#).

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

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

List of measurements

This section of the document provides a list of all measurements available in the system. Measurements are summarized in tables (by type) with additional measurement details (when available) following each table.

OAM.ALARM measurements

Table 25: 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

OAM.SYSTEM measurements

Table 26: 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	5 minutes

Measurement Tag	Description	Collection Interval
	resources than provided by physical RAM, in which case, swapping will occur.	
System.RAM_UtilPct_Peak	The peak committed RAM usage as a percentage of the total physical RAM. This measurement is based on the Committed_AS measurement from Linux/proc/meminfo. This measurement can exceed 100% if the kernel has committed more resources than provided by physical RAM, in which case, swapping will occur.	5 minutes
System.ShMem_UtilPct_Average	The average shared memory usage as a percentage of the limit configured by shl.set.	5 minutes
System.ShMem_UtilPct_Peak	The peak shared memory usage as a percentage of the limit configured by shl.set.	5 minutes
System.SwapIn_Rate_Average	The average number of memory pages swapped in to memory from disk per second.	5 minutes
System.SwapIn_Rate_Peak	The peak number of memory pages swapped in to memory from disk per second.	5 minutes
System.SwapOut_Rate_Average	The average number of memory pages swapped out of memory from disk per second.	5 minutes
System.SwapOut_Rate_Peak	The peak number of memory pages swapped out of memory from disk per second.	5 minutes
System.Swap_UtilPct_Average	The average usage of swap space as a percentage of the total configured swap space.	5 minutes
System.Swap_UtilPct_Peak	The peak usage of swap space as a percentage of the total configured swap space.	5 minutes
System.CPU_CoreUtilPct_Average	The average CPU usage for each core. On an eight-core system, there will be eight sub-metrics showing the utilization of each core.	5 minutes

Measurement Tag	Description	Collection Interval
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

ESPR Measurements

Table 27: ESPR Measurements

Measurement Tag	Description	Collection Interval
EvAeConvertToProvSubFailed	Total number of failed attempts to convert an auto-enrolled subscriber to a provisioned subscriber	5 minutes
EvAeProvCreateSubFailed	Total number of failed attempts to create an auto-enrolled subscriber via the provisioning interface	5 minutes
EvAeShCreateSubFailed	Total number of failed attempts to create an auto-enrolled subscriber via the Sh interface	5 minutes
EvAeShDeleteSubFailed	Total number of failed attempts to delete an auto-enrolled subscriber via the Sh interface	5 minutes
RxAeConvertToProvSubSuccess	Total number of auto-enrolled subscribers converted to provisioned subscribers	5 minutes
RxAeProvCreateMsgs	Total number of requests received via the provisioning interface where the subscriber was unknown and auto-enrollment was triggered to create the subscriber	5 minutes
RxAeProvCreateSubSuccess	Total number of auto-enrolled subscribers created via the provisioning interface	5 minutes
RxAeShCreateSubSuccess	Total number of auto-enrolled subscribers created via the Sh interface	5 minutes
RxAeShDeleteSubMsgs	Total number of unsubscribe requests received via the Sh interface that triggered the removal of an auto-enrolled subscriber	5 minutes
RxAeShDeleteSubSuccess	Total number of auto-enrolled subscribers deleted via the Sh Interface	5 minutes
RxAeShPurCreateMsgs	Total number of update requests received via the Sh interface where the subscriber was unknown and auto-enrollment was triggered to create the subscriber	5 minutes

Measurements

Measurement Tag	Description	Collection Interval
RxAeShSnrCreateMsgs	Total number of subscribe requests received via the Sh interface where the subscriber was unknown and auto-enrollment was triggered to create the subscriber	5 minutes
RxUdrBePnNonPooledEntity	Total number of update requests that generated notification(s) for non-pooled entity(s)	5 minutes
RxUdrBePnPooledEntity	Total number of update requests that generated notifications(s) for pooled entity(s)	5 minutes
RxUdrBeReadMsgs	Total number of read requests received	5 minutes
RxUdrBeUpdateMsgs	Total number of update requests received	5 minutes
RxUdrNmNotifAck	Total number of notification delivery responses received	5 minutes
RxUdrNmNotifAckAsAvailable	Total number of notifications successfully sent to the AS (the AS received the notification)	5 minutes
RxUdrNmNotifAckAsUnavailable	Total number of notifications that failed to be sent to the AS (the AS did not receive the notification)	5 minutes
RxUdrNmNotifAckLateResponse	Total number of notification delivery responses received after the delivery timeout period expired	5 minutes
RxUdrNmNotifAckNotSubscribed	Total number of notification delivery responses received that indicated the AS was not subscribed to the subscriber	5 minutes
RxUdrNmNotifAckTimeout	Total number of notification delivery requests sent where a response was not received within the configured timeout interval	5 minutes
RxUdrSmSubscribeMsgs	Total number of subscribe requests received	5 minutes
RxUdrSmSubscribeSnoFull	Total number of times when adding a new subscription that the subscription (SNO) record for the subscriber exceeded the maximum number of allowed subscriptions and caused a subscription(s) to be removed	5 minutes
RxUdrSmUnsubscribeMsgs	Total number of unsubscribe requests received	5 minutes
RxUdrSmUnsubscribeNsNotFound	Total number of unsubscribe requests where the subscriber exists but the desired notification subscription does not exist	5 minutes

Measurements

Measurement Tag	Description	Collection Interval
TxRequestSuccessfulAll	Total Number of Requests successfully processed	5 minutes
TxUdrBeReadReqFailed	Total number of failed read requests	5 minutes
TxUdrBeReadReqSuccess	Total number of successful read requests	5 minutes
TxUdrBeReadUnkSubscriber	Total number of read requests received where the subscriber was unknown	5 minutes
TxUdrBeUpdateInvalidEntity	Total number of update requests received where an unknown entity was encountered	5 minutes
TxUdrBeUpdateNotPoolMember	Total number of update requests received where a pooled entity was being updated, but the subscriber was not a member of a pool	5 minutes
TxUdrBeUpdateOutOfSync	Total number of update requests received where the incorrect sequence number to perform was supplied	5 minutes
TxUdrBeUpdateReqFailed	Total number of failed update requests	5 minutes
TxUdrBeUpdateReqSuccess	Total number of successful update requests	5 minutes
TxUdrBeUpdateTooBusy	Total number of update requests which could not be processed because of congestion	5 minutes
TxUdrBeUpdateUnkSubscriber	Total number of update requests received where the subscriber was unknown	5 minutes
TxUdrNmNotifComAgentError	Total number of notification delivery requests sent that resulted in a ComAgent delivery failure of the notification delivery request	5 minutes
TxUdrNmNotifDeletedTableFull	Total number of notifications that were deleted because the maximum configured number of outstanding notifications allowed had been exceeded	5 minutes
TxUdrNmNotifExceededMaxDel	Total number of notifications that exceeded the maximum configured number of delivery attempts allowed	5 minutes
TxUdrNmNotifExceededMaxTtl	Total number of notifications that exceeded the maximum configured time to live	5 minutes
TxUdrNmNotifNoValidEntity	Total number of notifications to be sent that did not consist of any valid entities	5 minutes
TxUdrNmNotifSent	Total number of notification delivery requests sent	5 minutes
TxUdrSmSubscribeReqFailed	Total number of failed subscribe requests	5 minutes

Measurement Tag	Description	Collection Interval
TxUdrSmSubscribeReqSuccess	Total number of successful subscribe requests	5 minutes
TxUdrSmSubscribeUnkSubscriber	Total number of subscribe requests received where the subscriber was unknown and was not added via auto-enrollment	5 minutes
TxUdrSmUnsubscribeReqFailed	Total number of failed unsubscribe requests	5 minutes
TxUdrSmUnsubscribeReqSuccess	Total number of successful unsubscribe requests	5 minutes
TxUdrSmUnsubscribeUnkSubscriber	Total number of unsubscribe requests received where the subscriber was unknown	5 minutes

EvAeConvertToProvSubFailed

Measurement Group: UDRBE Exceptions

Measurement Type: Simple

Description: Total number of failed attempts to convert an auto-enrolled subscriber to a provisioned subscriber

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an auto-enrolled subscriber can not be converted to a provisioned subscriber due to a failure.

Measurement Scope: All

Recovery:

No action required.

EvAeProvCreateSubFailed

Measurement Group: UDRBE Exceptions

Measurement Type: Simple

Description: Total number of failed attempts to create an auto-enrolled subscriber via the provisioning interface

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time there is a failed attempt to create an Auto-Enrolled or Provisioned subscriber.

Measurement Scope: All

Recovery:

No action required.

EvAeShCreateSubFailed

Measurement Group: UDRBE Exceptions

Measurement Type: Simple

Description: Total number of failed attempts to create an auto-enrolled subscriber via the provisioning interface

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an attempt to create an auto-enrolled subscriber via an Sh interface request fails.

Measurement Scope: All

Recovery:

No action required.

EvAeShDeleteSubFailed

Measurement Group: UDRBE Exceptions

Measurement Type: Simple

Description: Total number of failed attempts to delete an auto-enrolled subscriber via the Sh interface

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an auto-enrolled subscriber cannot be deleted via the Sh interface due to a failure.

Measurement Scope: All

Recovery:

No action required.

RxAeConvertToProvSubSuccess

Measurement Group: Auto Enrollment

Measurement Type: Simple

Description: Total number of auto-enrolled subscribers converted to provisioned subscribers

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an auto-enrolled subscriber is converted to a provisioned subscriber. This conversion is done when the provisioning system adds or updates profile entity data or when the subscriber is added to a pool.

Measurement Scope: All

Recovery:

No action required.

RxAeProvCreateMsgs

Measurement Group: Auto Enrollment

Measurement Type: Simple

Description: Total number of requests received via the provisioning interface where the subscriber was unknown, and auto-enrollment was triggered to create the subscriber

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the UDR Back End processes a provisioning interface request, the subscriber user identity is not found in the index, the update request matches auto-enrollment requirements, and auto-enrollment for provisioning is enabled.

Measurement Scope: All

Recovery:

No action required.

RxAeProvCreateSubSuccess

Measurement Group: Auto Enrollment

Measurement Type: Simple

Description: Total number of auto-enrolled subscribers successfully created via the provisioning interface

Collection Interval: 5 min

Peg Condition: The measurement is incremented each time a subscriber is successfully created via the provisioning interface.

Measurement Scope: All

Recovery:

No action required.

RxAeShCreateSubSuccess

Measurement Group: Auto Enrollment

Measurement Type: Simple

Description: Total number of auto-enrolled subscribers created via the Sh interface

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an auto-enrolled subscriber is successfully created.

Measurement Scope: All

Recovery:

No action required.

RxAeShDeleteSubMsgs

Measurement Group: Auto Enrollment

Measurement Type: Simple

Description: Total number of unsubscribe requests received via the Sh interface that triggered the removal of an auto-enrolled subscriber

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an auto-enrolled subscriber is deleted.

Measurement Scope: All

Recovery:

No action required.

RxAeShDeleteSubSuccess

Measurement Group: Auto Enrollment

Measurement Type: Simple

Description: Total number of auto-enrolled subscribers successfully deleted via the Sh interface

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a subscriber is successfully deleted via the Sh interface.

Measurement Scope: All

Recovery:

No action required.

RxAeShPurCreateMsgs

Measurement Group: Auto Enrollment

Measurement Type: Simple

Description: Total number of update requests received via the Sh interface where the subscriber was unknown and auto-enrollment was triggered to create the subscriber

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the Subscription Manager processes an update request, the subscriber user identity is not found in the index, the subscribe request matches auto-enrollment requirements, and auto-enrollment for PUR is enabled.

Measurement Scope: All

Recovery:

No action required.

RxAeShSnrCreateMsgs

Measurement Group: Auto Enrollment

Measurement Type: Simple

Description: Total number of subscribe requests received via the Sh interface where the subscriber was unknown and auto-enrollment was triggered to create the subscriber

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the Subscription Manager processes a subscribe request, the subscriber user identity is not found in the index, the subscribe request matches auto-enrollment requirements, and auto-enrollment for SNR is enabled.

Measurement Scope: All

Recovery:

No action required.

RxUdrBePnNonPooledEntity

Measurement Group: UDRBE Performance

Measurement Type: Simple

Description: Total number of update requests that generated notification(s) for non-pooled entity(s)

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the UDR Back End performs an update of subscriber (non-pool) related data, and one or more subscriptions are found that result in a notification(s) being generated.

Measurement Scope: All

Recovery:

No action required.

RxUdrBePnPooledEntity

Measurement Group: UDRBE Performance

Measurement Type: Simple

Description: Total number of update requests that generated notification(s) for pooled entity(s)

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the UDR Back End performs an update of pool related data, and one or more subscriptions are found that result in a notification(s) being generated.

Measurement Scope: All

Recovery:

No action required.

RxUdrBeReadMsgs

Measurement Group: UDRBE Performance

Measurement Type: Simple

Description: Total number of read requests received

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the UDR Back End receives a 'read' stack event.

Measurement Scope: All

Recovery:

No action required.

RxUdrBeUpdateMsgs

Measurement Group: UDRBE Performance

Measurement Type: Simple

Description: Total number of update requests received

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the UDR Back End receives an 'update' stack event.

Measurement Scope: All

Recovery:

No action required.

RxUdrNmNotifAck

Measurement Group: Notification Management

Measurement Type: Simple

Description: Total number of notification delivery responses received

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the Notification Manager receives a 'notifyAck' stack event.

Measurement Scope: All

Recovery:

No action required.

RxUdrNmNotifAckAsAvailable

Measurement Group: Notification Management

Measurement Type: Simple

Description: Total number of notifications successfully sent to the AS (i.e. the AS received the notification).

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the Notification Manager receives a 'notifyAck' stack event with a status of other than 'RecipientUnavailable' or 'ResponseTimeout'.

Measurement Scope: All

Recovery:

No action required.

RxUdrNmNotifAckAsUnavailable

Measurement Group: Notification Management

Measurement Type: Simple

Description: Total number of notification delivery responses that indicated that the AS was unavailable

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the Notification Manager receives a 'notifyAck' stack event with the status 'RecipientUnavailable'.

Measurement Scope: All

Recovery:

No action required.

RxUdrNmNotifAckLateResponse

Measurement Group: UDRBE Exceptions

Measurement Type: Simple

Description: Total number of notification delivery responses received after the delivery timeout period expired

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the Notification Manager receives a 'notifyAck' stack event relating to a notification for which a delivery attempt has been made at least once, the last delivery attempt has already been detected as timed out, and the notification is awaiting a delivery retry.

Measurement Scope: All

Recovery:

No action required.

RxUdrNmNotifAckNotSubscribed

Measurement Group: Notification Management

Measurement Type: Simple

Description: Total number of notification delivery responses received that indicate the AS was not subscribed to the subscriber

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the Notification Manager receives a 'notifyAck' stack event with the status 'NoSubscriptionToData'.

Measurement Scope: All

Recovery:

No action required.

RxUdrNmNotifAckTimeout

Measurement Group: Notification Management

Measurement Type: Simple

Description: Total number of notification delivery requests sent where a response was not received within the configured timeout interval

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the Notification Manager sends a 'notify' stack event, does not receive a response, and times out.

Measurement Scope: All

Recovery:

No action required.

RxUdrSmSubscribeMsgs

Measurement Group: Subscription Management

Measurement Type: Simple

Description: Total number of subscribe requests received

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the Subscription Manager receives a 'subscribe' stack event that does not request that the data subscribed to be read and returned in the response.

Measurement Scope: All

Recovery:

No action required.

RxUdrSmSubscribeSnoFull

Measurement Group: UDRBE Exceptions

Measurement Type: Simple

Description: Total number of times that when adding a new subscription, the SNO record for the subscriber exceeded the maximum number of allowed subscriptions and caused a subscription(s) to be removed

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the Subscription Manager attempts to add a new (non duplicate) subscription into the SNO record for a subscriber and finds that the SNO record already contains at least the maximum number of subscriptions allowed, per the Maximum Subscriptions per Subscriber configuration option.

Measurement Scope: All

Recovery:

No action required.

RxUdrSmUnSubscribeMsgs

Measurement Group: Subscription Management

Measurement Type: Simple

Description: Total number of unsubscribe requests received

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the Subscription Manager receives an 'unsubscribe' stack event that does not request that the data subscribed to be read and returned in the response.

Measurement Scope: All

Recovery:

No action required.

RxUdrSmUnsubscribeNsNotFound

Measurement Group: Subscription Management

Measurement Type: Simple

Description: Total number of unsubscribe requests where the subscriber exists but the desired notification subscription does not exist

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the Subscription Manager processes an unsubscribe request, the subscriber user identity is found in the index, and the subscription (NS) to which the unsubscribe request was made is not found in the SNO record for the subscriber.

Measurement Scope: All

Recovery:

No action required.

TxAeSnrCreateSubSuccess

Measurement Group: Auto Enrollment

Measurement Type: Simple

Description: Total number of auto-enrolled subscribers successfully created via the Sh interface

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a subscriber is successfully created via the Sh interface.

Measurement Scope: All

Recovery:

No action required.

TxRequestSuccessfulAll

Measurement Group: UDRFE Performance

Measurement Type: Simple

Description: Total Number of Requests successfully processed

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an Sh request is successfully processed.

Measurement Scope: All

Recovery:

No action required.

TxUdrBeReadReqFailed

Measurement Group: UDRBE Performance

Measurement Type: Simple

Description: Total number of failed read requests

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the UDR Back End processes a read request, and sends a status other than 'Success' in the 'readAck' stack event in response.

Measurement Scope: All

Recovery:

No action required.

TxUdrBeReadReqSuccess

Measurement Group: UDRBE Performance

Measurement Type: Simple

Description: Total number of successful read requests

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the UDR Back End processes a read request, and sends a 'Success' status in the 'readAck' stack event in response.

Measurement Scope: All

Recovery:

No action required.

TxUdrBeReadUnkSubscriber

Measurement Group: UDRBE Performance

Measurement Type: Simple

Description: Total number of read requests received where the subscriber was unknown

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the UDR Back End processes a read request, and the subscriber user identity is not found in the index.

Measurement Scope: All

Recovery:

No action required.

TxUdrBeUpdateInvalidEntity

Measurement Group: UDRBE Performance

Measurement Type: Simple

Description: Total number of update requests received where an unknown entity was encountered

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the UDR Back End processes an update request, and an entity being updated is not found in the SEC.

Measurement Scope: All

Recovery:

No action required.

TxUdrBeUpdateNotPoolMember

Measurement Group: UDRBE Performance

Measurement Type: Simple

Description: Total number of update requests received where a pooled entity was being updated, but the subscriber was not a member of a pool

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the UDR Back End processes an update request for a pooled entity, and the subscriber is not currently a member of a pool.

Measurement Scope: All

Recovery:

No action required.

TxUdrBeUpdateOutOfSync

Measurement Group: UDRBE Performance

Measurement Type: Simple

Description: Total number of update requests received where the incorrect sequence number to perform was supplied

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the UDR Back End processes an update request and the sequence number supplied for one of the entities is not valid.

Measurement Scope: All

Recovery:

No action required.

TxUdrBeUpdateReqFailed

Measurement Group: UDRBE Performance

Measurement Type: Simple

Description: Total number of failed update requests

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the UDR Back End processes an update request, and sends a status other than 'Success' in the 'updateAck' stack event in response.

Measurement Scope: All

Recovery:

No action required.

TxUdrBeUpdateReqSuccess

Measurement Group: UDRBE Performance

Measurement Type: Simple

Description: Total number of successful update requests

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the UDR Back End processes an update request, and sends a 'Success' status in the 'updateAck' stack event in response.

Measurement Scope: All

Recovery:

No action required.

TxUdrBeUpdateTooBusy

Measurement Group: UDRBE Performance

Measurement Type: Simple

Description: Total number of update requests which could not be processed because of congestion

Collection Interval: 5 min

Peg Condition: The measurement shall be incremented each time the UDR Back End processes fails to process an update request because of congestion, and sends a status other than *Success* in the *updateAck* stack event in response.

Measurement Scope: All

Recovery:

No action required.

TxUdrBeUpdateUnkSubscriber

Measurement Group: UDRBE Performance

Measurement Type: Simple

Description: Total number of update requests received where the subscriber was unknown

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the UDR Back End processes an update request, and the subscriber user identity is not found in the index.

Measurement Scope: All

Recovery:

No action required.

TxUdrNmNotifComAgentError

Measurement Group: UDRBE Exceptions

Measurement Type: Simple

Description: Total number of notification delivery requests sent that resulted in a ComAgent delivery failure of the notification delivery request

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the Notification Manager attempts to send a 'notify' stack event and encounters a ComAgent error, resulting in the 'notify' stack event not being successfully sent.

Measurement Scope: All

Recovery:

No action required.

TxUdrNmNotifDeletedTableFull

Measurement Group: UDRBE Exceptions

Measurement Type: Simple

Description: Total number of notifications that were deleted because the maximum configured number of outstanding notifications allowed was exceeded

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the Notification Manager deletes an outstanding notification due to the maximum configured number of outstanding notifications being exceeded.

Measurement Scope: All

Recovery:

No action required.

TxUdrNmNotifExceededMaxDel

Measurement Group: Notification Management

Measurement Type: Simple

Description: Total number of notifications that exceeded the maximum configured number of delivery attempts allowed

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the Notification Manager processes a notification (i.e. a PN) to be sent, checks the number of delivery attempts that have already been made for the notification, and discovers that another delivery attempt would exceed the configured Notification Maximum Delivery Attempts value.

Measurement Scope: All

Recovery:

No action required.

TxUdrNmNotifExceededMaxTtl

Measurement Group: Notification Management

Measurement Type: Simple

Description: Total number of notifications that exceeded the maximum configured time to live

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the Notification Manager processes a notification (i.e. a PN) to be sent, checks the time difference between when the notification was created and the current date/time, and discovers that the difference is greater than the configured Notification Maximum Time To Live value.

Measurement Scope: All

Recovery:

No action required.

TxUdrNmNotifNoValidEntity

Measurement Group: UDRBE Exceptions

Measurement Type: Simple

Description: Total number of notifications to be sent that do not consist of any valid entities

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the Notification Manager processes a notification (PN), and every entity to be sent in the 'notify' stack event is not valid (i.e. does not exist, or does not contain entity alias information for the interface through which the notification is to be sent).

Measurement Scope: All

Recovery:

No action required.

TxUdrNmNotifSent

Measurement Group: Notification Management

Measurement Type: Simple

Description: Total number of notification delivery requests sent

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the Notification Manager sends a 'notify' stack event.

Measurement Scope: All

Recovery:

No action required.

TxUdrSmSubscribeReqFailed

Measurement Group: Subscription Management

Measurement Type: Simple

Description: Total number of failed subscribe requests

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the Subscription Manager processes a subscribe request and sends a status other than 'Success' in the 'subscribeAck' stack event in response.

Measurement Scope: All

Recovery:

No action required.

TxUdrSmSubscribeReqSuccess

Measurement Group: Subscription Management

Measurement Type: Simple

Description: Total number of successful subscribe requests

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the Subscription Manager processes a subscribe request and sends a 'Success' status in the 'subscribeAck' stack event in response.

Measurement Scope: All

Recovery:

No action required.

TxUdrSmSubscribeUnkSubscriber

Measurement Group: Subscription Management

Measurement Type: Simple

Description: Total number of subscribe requests received where the subscriber was unknown and was not added via auto-enrollment

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the Subscription Manager processes a subscribe request, the subscriber user identity is not found in the index, and the subscribe request does not match auto-enrollment requirements.

Measurement Scope: All

Recovery:

No action required.

TxUdrSmUnSubscribeReqFailed

Measurement Group: Subscription Management

Measurement Type: Simple

Description: Total number of failed unsubscribe requests

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the Subscription Manager processes an unsubscribe request and sends a status other than 'Success' in the 'unsubscribeAck' stack event in response.

Measurement Scope: All

Recovery:

No action required.

TxUdrSmUnSubscribeReqSuccess

Measurement Group: Subscription Management

Measurement Type: Simple

Description: Total number of successful unsubscribe requests

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the Subscription Manager processes an unsubscribe request and sends a 'Success' status in the 'unsubscribeAck' stack event in response.

Measurement Scope: All

Recovery:

No action required.

TxUdrSmUnSubscribeUnkSubscriber

Measurement Group: Subscription Management

Measurement Type: Simple

Description: Total number of unsubscribe requests received where the subscriber was unknown

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time the Subscription Manager processes an unsubscribe request, the subscriber user identity is not found in the index.

Measurement Scope: All

Recovery:

No action required.

UDRFE Measurements

Table 28: UDRFE Measurements

Measurement Tag	Description	Collection Interval
RxInvalidDataRefValue	Total number of SNR requests that contained an invalid DataReference AVP value	5 minutes

Measurement Tag	Description	Collection Interval
RxInvalidDelete	Total number of PUR requests that contained a delete request with a sequence number of 0	5 minutes
RxInvalidExpTimeValue	Total number of SNR requests that contained an invalid ExpiryTime AVP value	5 minutes
RxRequestAll	Total number of requests received	5 minutes
RxRequestDiscarded	Total number of requests that were discarded due to the signaling connection being shut down, server being shut down, or transaction not becoming durable within the allowed amount of time	5 minutes
RxRequestFailedAll	Total number of requests that failed to be processed due to errors	5 minutes
RxRequestFailedPUR	Total number of PUR requests that failed to be processed due to errors	5 minutes
RxRequestFailedSNR	Total number of SNR requests that failed to be processed due to errors	5 minutes
RxRequestFailedUDR	Total number of UDR requests that failed to be processed due to errors	5 minutes
RxRequestPUR	Total number of PUR requests received	5 minutes
RxRequestRejectedComAgentError	Total Number of Requests which cannot be processed due to ComAgent errors	5 minutes
RxRequestRejectedInvalidServiceInd	Total number of requests that cannot be processed due to invalid service indication	5 minutes
RxRequestRejectedMessageDecodingFailed	Total number of requests that cannot be processed due to message decoding failure	5 minutes
RxRequestRejectedPermissionsNotPresent	Total number of requests that cannot be processed because the host does not have the permissions to execute the operation.	5 minutes
RxRequestRejectedUnknownApplicationId	Total number of requests that cannot be processed due to unknown application ID	5 minutes
RxRequestRejectedUnknownUser	Total number of requests that cannot be processed due to unknown user	5 minutes
RxRequestSNR	Total number of SNR requests received	5 minutes

Measurements

Measurement Tag	Description	Collection Interval
RxRequestSuccessfulAll	Total number of requests successfully processed	5 minutes
RxRequestSuccessfulPUR	Total number of PUR successfully processed	5 minutes
RxRequestSuccessfulSNR	Total number of SNR successfully processed	5 minutes
RxRequestSuccessfulUDR	Total number of UDR requests successfully processed	5 minutes
RxRequestUDR	Total number of UDR received	5 minutes
RxResponseAll	Total Number of Responses received	5 minutes
RxResponsePNA	Total number of PNA received	5 minutes
RxResponseRejectedComAgentError	Total number of responses that cannot be processed due to ComAgent connection errors	5 minutes
RxResponseRejectedMessageDecodingFailed	Total number of responses which cannot be processed due to message decoding failure	5 minutes
RxResponseRejectedUnknownApplicationId	Total number of responses which cannot be processed due to unknown application ID	5 minutes
RxTooMuchData	Total number of PUR requests that contained too much data to process	5 minutes
TmRemotePeerOrphanResponse	Response is received from Remote Diameter Peer for which no pending request event is found	5 minutes
TmPNAReceiveTimeOut	PNR is sent but transaction is timed out as PNA is not received in configured time	5 minutes
TmRemotePeerOrphanResponse	Response is received from Remote Diameter Peer for which no pending request event is found	5 minutes
TmResponseEventTimeOut	Request event is sent to UDRBE but transaction is timed out as UDRBE response event is not received in configured time	5 minutes
TmResponseTimeSPR	Average time from request to response	5 minutes
TmUdrAnsAvgQ	Average UDR answer queue utilization	5 minutes
TmUdrAnsPeakQ	Maximum UDR answer queue size utilization	5 minutes

Measurement Tag	Description	Collection Interval
TmUdrAvgStkEventQ	Average UDR stack event queue utilization	5 minutes
TmUdrbeOrphanResponse	Response event is received from UDRBE for which no pending request event is found	5 minutes
TmUdrPeakStkEventQ	Maximum UDR stack event queue size utilization	5 minutes
TmUdrReqAvgQ	Average UDR request queue utilization	5 minutes
TmUdrReqPeakQ	Maximum UDR request queue utilization	
TxPnaAsUnavailable	Total number of PNA responses received that indicate an AS is unavailable	5 minutes
TxPnrCreateFailed	Total number of PNR requests that failed to build	5 minutes
TxRequestAll	Total Number of Requests sent	5 minutes
TxRequestFailedAll	Total number of Requests that have failed to be processed due to errors	5 minutes
TxRequestFailedPNR	Total number of PNR requests that failed to be processed due to errors	5 minutes
TxRequestPNR	Total number of PNR sent to PCRF	5 minutes
TxRequestSuccessfulAll	Total Number of Requests successfully processed	5 minutes
TxRequestSuccessfulPNR	Total number of PNR requests successfully processed	5 minutes
TxResponseAll	Total number of responses sent	5 minutes
TxResponsePUA	Total number of PUA sent to PCRF	5 minutes
TxResponseSNA	Total number of SNA sent to PCRF	5 minutes
TxResponseUDA	Total number of UDA sent to PCRF	5 minutes

RxInvalidDataRefValue

Measurement Group: Sh Exceptions

Measurement Type: Simple

Description: Total number of SNR requests that contained an invalid DataReference AVP value.

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an SNR request is received that contains an invalid DataReference AVP value.

Measurement Scope: All

Recovery:

No action required.

RxInvalidDelete

Measurement Group: Sh Exceptions

Measurement Type: Simple

Description: Total number of PUR requests that contained a delete request with a sequence number of 0

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a PUR request contains a delete request with a sequence number of 0.

Measurement Scope: All

Recovery:

No action required.

RxInvalidExpTimeValue

Measurement Group: Sh Exceptions

Measurement Type: Simple

Description: Total number of SNR requests that contained an invalid ExpiryTime AVP value

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an SNR request is received that contains an invalid ExpiryTime AVP value.

Measurement Scope: All

Recovery:

No action required.

RxRequestAll

Measurement Group: UDRFE Performance

Measurement Type: Simple

Description: Total number of requests received

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an Sh request is received.

Measurement Scope: All

Recovery:

No action required.

RxRequestDiscarded

Measurement Group: UDRFE Exception

Measurement Type: Simple

Description: Total number of requests that have been discarded due to the signaling connection being shut down, server being shut down, or transaction not becoming durable within the allowed amount of time

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a request is discarded due to the signaling connection being shut down, server being shut down, or transaction not becoming durable within the allowed amount of time.

Measurement Scope: All

Recovery:

No action required.

RxRequestFailedAll

Measurement Group: UDRFE Performance

Measurement Type: Simple

Description: Total number of requests that have failed to be processed due to errors

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a request fails to be processed due to errors.

Measurement Scope: All

Recovery:

No action required.

RxRequestFailedPUR

Measurement Group: UDRFE Performance

Measurement Type: Simple

Description: Total number of PUR requests that have failed to be processed due to errors

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a PUR request fails to be processed due to errors.

Measurement Scope: All

Recovery:

No action required.

RxRequestFailedSNR

Measurement Group: UDRFE Performance

Measurement Type: Simple

Description: Total number of SNR requests that have failed to be processed due to errors

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an SNR request fails to be processed due to errors.

Measurement Scope: All

Recovery:

No action required.

RxRequestFailedUDR

Measurement Group: UDRFE Performance

Measurement Type: Simple

Description: Total number of UDR requests that have failed to be processed due to errors

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a UDR request fails to be processed due to errors.

Measurement Scope: All

Recovery:

No action required.

RxRequestPUR

Measurement Group: Sh Performance

Measurement Type: Simple

Description: Total number of PUR requests received

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a PUR request is received.

Measurement Scope: All

Recovery:

No action required.

RxRequestRejectedComAgentError

Measurement Group: Sh Exceptions

Measurement Type: Simple

Description: Total number of requests that cannot be processed due to ComAgent connection errors

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a request cannot be processed due to ComAgent connection errors.

Measurement Scope: All

Recovery:

No action required.

RxRequestRejectedInvalidServiceInd

Measurement Group: Sh Performance

Measurement Type: Simple

Description: Total number of requests that cannot be processed due to invalid service indication

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a request cannot be processed due to invalid service indication.

Measurement Scope: All

Recovery:

No action required.

RxRequestRejectedMessageDecodingFailed

Measurement Group: UDRFE Performance

Measurement Type: Simple

Description: Total number of requests that cannot be processed due to message decoding failure

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a request cannot be processed due to message decoding failure.

Measurement Scope: All

Recovery:

No action required.

RxRequestRejectedPermissionsNotPresent

Measurement Group: Sh Exceptions

Measurement Type: Simple

Description: Total number of requests that cannot be processed because the host does not have the permissions to execute the operation

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a request cannot be processed because the host does not have the permissions to execute the operation.

Measurement Scope: All

Recovery:

No action required.

RxRequestRejectedUnknownApplicationId

Measurement Group: Sh Exceptions

Measurement Type: Simple

Description: Total number of requests that cannot be processed because of an unknown application ID

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a request cannot be processed because of an unknown application ID.

Measurement Scope: All

Recovery:

No action required.

RxRequestRejectedUnknownUser

Measurement Group: UDRFE Performance

Measurement Type: Simple

Description: Total number of requests that cannot be processed because of an unknown user

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a request cannot be processed because of an unknown user.

Measurement Scope: All

Recovery:

No action required.

RxRequestSNR

Measurement Group: Sh Performance

Measurement Type: Simple

Description: Total number of SNR requests received

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an SNR request is received.

Measurement Scope: All

Recovery:

No action required.

RxRequestSuccessfulAll

Measurement Group: UDRFE Performance

Measurement Type: Simple

Description: Total number of requests successfully processed

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a request is successfully processed.

Measurement Scope: All

Recovery:

No action required.

RxRequestSuccessfulPUR

Measurement Group: UDRFE Performance

Measurement Type: Simple

Description: Total number of PUR requests successfully processed

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a PUR request is successfully processed.

Measurement Scope: All

Recovery:

No action required.

RxRequestSuccessfulSNR

Measurement Group: UDRFE Performance

Measurement Type: Simple

Description: Total number of SNR requests successfully processed

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an SNR request is successfully processed.

Measurement Scope: All

Recovery:

No action required.

RxRequestSuccessfulUDR

Measurement Group: UDRFE Performance

Measurement Type: Simple

Description: Total number of UDR requests successfully processed

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a UDR request is successfully processed.

Measurement Scope: All

Recovery:

No action required.

RxRequestUDR

Measurement Group: Sh Performance

Measurement Type: Simple

Description: Total number of UDR requests received

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a UDR request is received.

Measurement Scope: All

Recovery:

No action required.

RxResponseAll

Measurement Group: UDRFE Performance

Measurement Type: Simple

Description: Total Number of Responses received

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an Sh response is received.

Measurement Scope: All

Recovery:

No action required.

RxResponsePNA

Measurement Group: Sh Performance

Measurement Type: Simple

Description: Total number of PNA responses received

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a PNA response is received.

Measurement Scope: All

Recovery:

No action required.

RxResponseRejectedComAgentError

Measurement Group: Sh Exceptions

Measurement Type: Simple

Description: Total number of responses that cannot be processed due to ComAgent connection errors

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a response cannot be processed due to ComAgent connection errors.

Measurement Scope: All

Recovery:

No action required.

RxResponseRejectedMessageDecodingFailed

Measurement Group: Sh Exceptions

Measurement Type: Simple

Description: Total number of responses that cannot be processed due to message decoding failure

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a response cannot be processed due to message decoding failure.

Measurement Scope: All

Recovery:

No action required.

RxResponseRejectedUnknownApplicationId

Measurement Group: Sh Exceptions

Measurement Type: Simple

Description: Total number of responses that cannot be processed due to an unknown application ID

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a response cannot be processed due to an unknown application ID.

Measurement Scope: All

Recovery:

No action required.

RxTooMuchData

Measurement Group: Sh Exceptions

Measurement Type: Simple

Description: Total number of PUR requests that contain too much data to process

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a PUR request contains too much data to process.

Measurement Scope: All

Recovery:

No action required.

TmRemotePeerOrphanResponse

Measurement Group: Sh Exceptions

Measurement Type: Simple

Description: Response event is received from Remote Diameter Peer for which no pending request event is found

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a response event is received from Remote Diameter Peer for which no pending request event is found.

Measurement Scope: All

Recovery:

No action required.

TmPNAReceiveTimeOut

Measurement Group: Sh Exceptions

Measurement Type: Simple

Description: A PNR is sent but the transaction is timed out because a PNA is not received in configured time.

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a PNR is sent but the transaction is timed out because a PNA is not received in configured time.

Measurement Scope: All

Recovery:

No action required.

TmRemotePeerOrphanResponse

Measurement Group: Sh Exceptions

Measurement Type: Simple

Description: Response event is received from Remote Diameter Peer for which no pending request event is found

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a response event is received from Remote Diameter Peer for which no pending request event is found.

Measurement Scope: All

Recovery:

No action required.

TmResponseEventTimeOut

Measurement Group: Sh Exceptions

Measurement Type: Simple

Description: A request event is sent to UDRBE but the transaction is timed out because a UDRBE response event is not received in configured time

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a request event is sent to UDRBE but the transaction is timed out because a UDRBE response event is not received in configured time.

Measurement Scope: All

Recovery:

No action required.

TmResponseTimeSPR

Measurement Group: UDRFE Performance

Measurement Type: Average

Description: Average time from request to response

Collection Interval: 5 min

Peg Condition: This measurement maintains the average time from request to response for Sh messages received.

Measurement Scope: All

Recovery:

No action required.

TmUdrAnsAvgQ

Measurement Group: UDRFE Performance

Measurement Type: Single

Description: Average UDR answer task event queue utilization

Collection Interval: 5 min

Peg Condition: This measurement maintains the average UDR answer task event queue size utilization.

Measurement Scope: All

Recovery:

No action required.

TmUdrAnsPeakQ

Measurement Group: UDRFE Exceptions

Measurement Type: Single

Description: Maximum UDR Answer queue utilization

Collection Interval: 5 min

Peg Condition: This measurement maintains the maximum UDR answer task event queue size utilization.

Measurement Scope: All

Recovery:

No action required.

TmUdrAvgStkEventQ

Measurement Group: UDRFE Performance

Measurement Type: Average

Description: Average UDR stack event queue utilization

Collection Interval: 5 min

Peg Condition: This measurement maintains the average UDR stack event queue utilization.

Measurement Scope: All

Recovery:

No action required.

TmUdrbeOrphanResponse

Measurement Group: Sh Exceptions

Measurement Type: Simple

Description: Response event is received from UDRBE for which no pending request event is found

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a response event is received from UDRBE for which no pending request event is found.

Measurement Scope: All

Recovery:

No action required.

TmUdrPeakStkEventQ

Measurement Group: UDRFE Performance

Measurement Type: Maximum

Description: Maximum UDR stack event queue size utilization

Collection Interval: 5 min

Peg Condition: This measurement maintains the maximum UDR stack event queue size utilization.

Measurement Scope: All

Recovery:

No action required.

TmUdrReqAvgQ

Measurement Group: UDRFE Performance

Measurement Type: Simple

Description: Average UDR request task event queue utilization

Collection Interval: 5 min

Peg Condition: This measurement maintains the average UDR request task event queue size utilization.

Measurement Scope: All

Recovery:

No action required.

TmUdrReqPeakQ

Measurement Group: UDRFE Exceptions

Measurement Type: Simple

Description: Maximum UDR request task event queue utilization

Collection Interval: 5 min

Peg Condition: This measurement maintains the maximum UDR request task event queue size utilization.

Measurement Scope: All

Recovery:

No action required.

TxPnaAsUnavailable

Measurement Group: Sh Exceptions

Measurement Type: Simple

Description: Total number of PNA responses received that indicate an AS is unavailable

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a received PNA response indicates that an AS is unavailable.

Measurement Scope: All

Recovery:

No action required.

TxPnrCreateFailed

Measurement Group: Sh Exceptions

Measurement Type: Simple

Description: Total number of PNR requests that failed to build

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a PNR request fails to be built.

Measurement Scope: All

Recovery:

No action required.

TxRequestAll

Measurement Group: UDRFE Performance

Measurement Type: Simple

Description: Total Number of Requests sent

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an Sh request is sent.

Measurement Scope: All

Recovery:

No action required.

TxRequestFailedAll

Measurement Group: UDRFE Performance

Measurement Type: Simple

Description: Total number of Requests that have failed to be processed due to errors

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a request has failed to be processed due to errors.

Measurement Scope: All

Recovery:

No action required.

TxRequestPNR

Measurement Group: Sh Performance

Measurement Type: Simple

Description: Total number of PNR requests sent to the PCRF

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a PNR request is sent.

Measurement Scope: All

Recovery:

No action required.

TxRequestFailedPNR

Measurement Group: UDRFE Performance

Measurement Type: Simple

Description: Total number of PNR requests that failed to be processed due to errors

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a PNR request fails to be processed due to errors.

Measurement Scope: All

Recovery:

No action required.

TxRequestSuccessfulAll

Measurement Group: UDRFE Performance

Measurement Type: Simple

Description: Total number of requests successfully processed

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an Sh request is successfully processed.

Measurement Scope: All

Recovery:

No action required.

TxRequestSuccessfulPNR

Measurement Group: UDRFE Performance

Measurement Type: Simple

Description: Total number of PNR requests successfully processed

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a PNR request is successfully processed.

Measurement Scope: All

Recovery:

No action required.

TxResponseAll

Measurement Group: UDRFE Performance

Measurement Type: Simple

Description: Total number of responses sent

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an Sh response is sent.

Measurement Scope: All

Recovery:

No action required.

TxResponsePUA

Measurement Group: Sh Performance

Measurement Type: Simple

Description: Total number of PUA responses sent to the PCRF

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a PUA response is sent.

Measurement Scope: All

Recovery:

No action required.

TxResponseSNA

Measurement Group: Sh Performance

Measurement Type: Simple

Description: Total number of SNA responses sent to the PCRF

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an SNA response is sent.

Measurement Scope: All

Recovery:

No action required.

TxResponseUDA

Measurement Group: Sh Performance

Measurement Type: Simple

Description: Total number of UDA responses sent to the PCRF

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a UDA response is sent.

Measurement Scope: All

Recovery:

No action required.

UDR RAS and XSAS Provisioning Interface Measurements

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

Table 29: UDR RAS and XSAS Provisioning Related Measurements

Measurement Tag	Description	Collection Interval
ProvTxnCommitted	Total number of transactions successfully committed to the database (memory and	5 min

Measurement Tag	Description	Collection Interval
	on disk) on the active server of the primary site	
RxProvExportCmds	Total number of commands exported	5 min
RxProvExportRequested	Total number of exports requested	5 min
RxProvExportsFailed	Total number of XML export requests that failed due to errors	5 min
RxProvExportsSuccessful	Total number of successful XML export requests	5 min
RxProvImportCmdsFailed	Total number of commands that failed import	5 min
RxProvImportCmdsSuccessful	Total number of commands that imported successfully	5 min
RxProvImportFilesFailed	Total number of files that failed to be imported due to errors	5 min
RxProvImportFilesReceived	Total number of provisioning files received from an import operation	5 min
RxProvImportFilesSuccessful	Total number of files imported successfully	5 min
RxRasProvConnectionIdleTimeouts	Total number of connections that timed out and terminated due to idleness	5 min
RxRasProvConnectsAccepted	Total number of client initiated connect attempts that were accepted	5 min
RxRasProvConnectsAttempted	Total number of client initiated connect attempts to establish a connection with the server	5 min
RxRasProvConnectsDenied	Total number of client initiated connect attempts denied because clients were not running on an authorized server, or the maximum number of allowed connections was already established	5 min
RxRasProvMsgsDiscarded	Total number of provisioning messages discarded because the connection was shut down, the server was shut down, the server role switched from active to standby, or the transaction did not become durable within the allowed amount of time	5 min
RxRasProvMsgsFailed	Total number of provisioning messages that failed to be processed due to errors	5 min
RxRasProvMsgsReceived	Total number of provisioning messages received	5 min

Measurement Tag	Description	Collection Interval
RxRasProvMsgsSent	Total number of provisioning messages sent	5 min
RxRasProvMsgsSuccessful	Total number of provisioning messages successfully processed	5 min
RxXsasProvConnectionIdleTimeouts	Total number of connections that timed out and terminated due to idleness	5 min
RxXsasProvConnectsAccepted	Total number of client initiated connect attempts that were accepted	5 min
RxXsasProvConnectsAttempted	Total number of client initiated connect attempts to establish a connection with the server	5 min
RxXsasProvConnectsDenied	Total number of client initiated connect attempts denied because the clients were not running on an authorized server, or the maximum number of allowed connections was already established	5 min
RxXsasProvConnectsFailed	Total number of client initiated connect attempts that failed due to errors during initialization	5 min
RxXsasProvMsgsDiscarded	Total number of provisioning messages discarded because the connection was shut down, the server was shutdown, the server role switched from active to standby, or the transaction did not become durable within the allowed amount of time	5 min
RxXsasProvMsgsFailed	Total number of provisioning messages that failed to be processed due to errors	5 min
RxXsasProvMsgsReceived	Total number of provisioning messages received	5 min
RxXsasProvMsgsSent	Total number of provisioning messages sent	5 min
RxXsasProvMsgsSuccessful	Total number of provisioning messages that were successfully processed	5 min
RxXsasProvTxnRequestsDiscarded	The total number of SOAP transactions that have been discarded 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	5 min
RxXsasProvTxnTotal	The total number of SOAP Transactions that have been attempted	5 min

Measurement Tag	Description	Collection Interval
TxProvImportResultFilesTransferred	Total number of result files transferred	5 min
TxProvTxnAborted	Total number of transactions that were successfully aborted after a configured number of retries	5 min
TxProvTxnDurabilityTimeouts	Total number of committed, non-durable transactions that failed to become durable within the amount of time specified by Transaction Durability Timeout	5 min
TxProvTxnFailed	Total number of transactions that failed to be started or committed or were aborted due to errors	5 min
TxProvTxnTotal	Total number of transactions that were attempted (the sum of R_ProvTxnCommitted, R_ProvTxnTimeouts, R_ProvTxnAborted, and R_ProvTxnFailed counters)	5 min
TxXsasProvTxnAborted	The total number of SOAP transactions that have been aborted after configured number of retries	5 min
TxXsasProvTxnFailed	The total number of SOAP transactions that have failed to be started or committed	5 min
XsasProvTxnCommitted	The total number of Soap transactions that have been successfully committed to the database	5 min

ProvTxnCommitted

Measurement Group: Provisioning Performance

Measurement Type: Simple

Description: Total number of transactions that were successfully committed to the database (memory and on disk) on the active server of the primary site

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a transaction is successfully committed to the database (memory and on disk) on the active server of the primary site.

Measurement Scope: All

Recovery:

No action required.

RxProvExportCmds

Measurement Group: Provisioning Performance

Measurement Type: Simple

Description: Total number of commands exported

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a command is exported.

Measurement Scope: All

Recovery:

No action required.

RxProvExportRequested

Measurement Group: Provisioning Performance

Measurement Type: Simple

Description: Total number of exports requested.

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an export is requested.

Measurement Scope: All

Recovery:

No action required.

RxProvExportsFailed

Measurement Group: Provisioning Exceptions

Measurement Type: Simple

Description: Total number of XML export requests that failed due to errors

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an XML export request fails due to errors.

Measurement Scope: All

Recovery:

No action required.

RxProvExportsSuccessful

Measurement Group: Provisioning Performance

Measurement Type: Simple

Description: Total number of successful XML export requests

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time there is a successful XML export request.

Measurement Scope: All

Recovery:

No action required.

RxProvImportCmdsFailed

Measurement Group: Provisioning Exceptions

Measurement Type: Simple

Description: Total number of commands that failed import

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a command import fails.

Measurement Scope: All

Recovery:

No action required.

RxProvImportCmdsSuccessful

Measurement Group: Provisioning Performance

Measurement Type: Simple

Description: Total number of provisioning commands that imported successfully

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a provisioning command is imported successfully.

Measurement Scope: All

Recovery:

No action required.

RxProvImportFilesFailed

Measurement Group: Provisioning Exceptions

Measurement Type: Simple

Description: Total number of files that failed to be imported due to errors

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a file import fails due to errors.

Measurement Scope: All

Recovery:

No action required.

RxProvImportFilesReceived

Measurement Group: Provisioning Performance

Measurement Type: Simple

Description: Total number of provisioning files received from an import operation

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a provisioning file is received from an import operation.

Measurement Scope: All

Recovery:

No action required.

RxProvImportFilesSuccessful

Measurement Group: Provisioning Performance

Measurement Type: Simple

Description: Total number of files imported successfully

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a file is imported successfully.

Measurement Scope: All

Recovery:

No action required.

RxProvImportResultFilesTransferred

Measurement Group: Provisioning Performance

Measurement Type: Simple

Description: Total number of import result files transferred

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a import result file is transferred successfully.

Measurement Scope: All

Recovery:

No action required.

RxRasProvConnectionIdleTimeouts

Measurement Group: Provisioning Exceptions

Measurement Type: Simple

Description: Total number of connections that timed out and terminated due to idleness

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an RAS connection times out due to being idle too long.

Measurement Scope: All

Recovery:

No action required.

RxRasProvConnectsAccepted

Measurement Group: Provisioning Performance

Measurement Type: Simple

Description: Total number of client initiated connect attempts that were accepted

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an RAS client attempts to initiate a connection with the server.

Measurement Scope: All

Recovery:

No action required.

RxRasProvConnectsAttempted

Measurement Group: Provisioning Performance

Measurement Type: Simple

Description: Total number of client initiated attempts to establish a connection with the server

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an RAS client attempts to initiate a connection with the server.

Measurement Scope: All

Recovery:

No action required.

RxRasProvConnectsDenied

Measurement Group: Provisioning Exceptions

Measurement Type: Simple

Description: Total number of client initiated connect attempts that were denied because clients were not running on an authorized server, or the maximum number of allowed connections was already established

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an RAS client attempts to initiate a connection, and the connection is denied because clients are not running on an authorized server, or the maximum number of allowed connections is already established or the provisioning interface is disabled.

Measurement Scope: All

Recovery:

No action required.

RxRasProvMsgsDiscarded

Measurement Group: Provisioning Exceptions

Measurement Type: Simple

Description: Total number of provisioning messages that were discarded because the connection was shut down, the server was shut down, the server role switched from active to standby, or the transaction did not become durable within the allowed amount of time.

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an RAS provisioning message is discarded because the connection is shut down, the server is shut down, the server role switches from active to standby, or the transaction does not become durable within the allowed amount of time.

Measurement Scope: All

Recovery:

No action required.

RxRasProvMsgsFailed

Measurement Group: Provisioning Exceptions

Measurement Type: Simple

Description: Total number of provisioning messages that failed to be processed due to errors

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a received RAS provisioning message fails to be processed due to errors.

Measurement Scope: All

Recovery:

No action required.

RxRasProvMsgsReceived

Measurement Group: Provisioning Performance

Measurement Type: Simple

Description: Total number of provisioning messages that were received

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an RAS provisioning message is received.

Measurement Scope: All

Recovery:

No action required.

RxRasProvMsgsSent

Measurement Group: Provisioning Performance

Measurement Type: Simple

Description: Total number of provisioning messages that were sent

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an RAS provisioning message is sent.

Measurement Scope: PROV Group

Recovery:

No action required.

RxRasProvMsgsSuccessful

Measurement Group: Provisioning Performance

Measurement Type: Simple

Description: Total number of provisioning messages that were successfully processed

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a received RAS provisioning message is successfully processed.

Measurement Scope: All

Recovery:

No action required.

RxXsasProvConnectionIdleTimeouts

Measurement Group: Provisioning Exceptions

Measurement Type: Simple

Description: Total number of connections that timed out and terminated due to idleness

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an XSAS connection times out due to being idle too long.

Measurement Scope: All

Recovery:

No action required.

RxXsasProvConnectsAccepted

Measurement Group: Provisioning Performance

Measurement Type: Simple

Description: Total number of client initiated connect attempts that were accepted

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an XSAS client initiates a connection that is accepted.

Measurement Scope: All

Recovery:

No action required.

RxXsasProvConnectsAttempted

Measurement Group: Provisioning Performance

Measurement Type: Simple

Description: Total number of client initiated attempts to establish a connection with the server.

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an XSAS client attempts to initiate a connection with the server.

Measurement Scope: All

Recovery:

No action required.

RxXsasProvConnectsDenied

Measurement Group: Provisioning Exceptions

Measurement Type: Simple

Description: Total number of client initiated connect attempts that were denied because clients were not running on an authorized server, the maximum number of allowed connections was already established.

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an XSAS client attempts to initiate a connection, and the connection is denied because clients are not running on an authorized server, or the maximum number of allowed connections is already established.

Measurement Scope: All

Recovery:

No action required.

RxXsasProvConnectsFailed

Measurement Group: Provisioning Exceptions

Measurement Type: Simple

Description: Total number of client initiated connect attempts that failed due to errors during initialization

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an XSAS client attempts a connection that failed due to errors during initialization.

Measurement Scope: All

Recovery:

No action required.

RxXsasProvMsgsDiscarded

Measurement Group: Provisioning Exceptions

Measurement Type: Simple

Description: Total number of provisioning messages that were discarded because the connection was shut down, the server was shut down, the server role switched from active to standby, or the transaction did not become durable within the allowed amount of time

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an XSAS provisioning message is discarded because the connection is shut down, the server is shut down, the server role switched from active to standby, or the transaction does not become durable within the allowed amount of time.

Measurement Scope: All

Recovery:

No action required.

RxXsasProvMsgsFailed

Measurement Group: Provisioning Exceptions

Measurement Type: Simple

Description: Total number of provisioning messages that failed to be processed due to errors.

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a received XSAS provisioning message fails to be processed due to errors.

Measurement Scope: All

Recovery:

No action required.

RxXsasProvMsgsReceived

Measurement Group: Provisioning Performance

Measurement Type: Simple

Description: Total number of provisioning messages that were received

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an XSAS provisioning message is received.

Measurement Scope: All

Recovery:

No action required.

RxXsasProvMsgsSent

Measurement Group: Provisioning Performance

Measurement Type: Simple

Description: Total number of provisioning messages that were sent

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an XSAS provisioning message is sent.

Measurement Scope: All

Recovery:

No action required.

RxXsasProvMsgsSuccessful

Measurement Group: Provisioning Performance

Measurement Type: Simple

Description: The total number of provisioning messages that were successfully processed

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a received XSAS provisioning message is successfully processed.

Measurement Scope: All

Recovery:

No action required.

RxXsasProvTxnRequestsDiscarded

Measurement Group: Provisioning Exceptions

Measurement Type: Simple

Description: The total number of SOAP transactions that have been discarded 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: This measurement shall be incremented each time a SOAP transaction has been discarded 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.

Measurement Scope: All

Recovery:

No action required.

RxXsasProvTxnTotal

Measurement Group: Provisioning Performance

Measurement Type: Simple

Description: The total number of SOAP transactions that have been received

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a SOAP transaction has been received.

Measurement Scope: All

Recovery:

No action required.

TxProvImportResultFilesTransferred

Measurement Group: Provisioning Performance

Measurement Type: Simple

Description: Total number of import result files transferred

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time an import result file is transferred.

Measurement Scope: All

Recovery:

No action required.

TxProvTxnAborted

Measurement Group: Provisioning Exceptions

Measurement Type: Simple

Description: Total number of transactions that were aborted after the configured number of retries.

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a transaction is aborted because the configured number of retries were already exhausted.

Measurement Scope: All

Recovery:

No action required.

TxProvTxnDurabilityTimeouts

Measurement Group: Provisioning Exceptions

Measurement Type: Simple

Description: Total number of committed, non-durable transactions that failed to become durable within the amount of time specified by the Transaction Durability Timeout value

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a committed, non-durable transaction fails to become durable within the amount of time specified by the Transaction Durability Timeout value.

Measurement Scope: All

Recovery:

No action required.

TxProvTxnFailed

Measurement Group: Provisioning Exceptions

Measurement Type: Simple

Description: Total number of transactions that failed to be started or committed.

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a transaction fails to be started or committed.

Measurement Scope: All

Recovery:

No action required.

TxProvTxnTotal

Measurement Group: Provisioning Performance

Measurement Type: Simple

Description: Total number of transactions that were attempted

Collection Interval: 5 min

Peg Condition: This measurement is incremented each time a transaction is attempted.

Measurement Scope: All

Recovery:

No action required.

TxXsasProvTxnAborted

Measurement Group: Provisioning Exceptions

Measurement Type: Simple

Description: The total number of SOAP transactions that have been aborted after configured number of retries.

Collection Interval: 5 min

Peg Condition: This measurement shall be incremented each time a SOAP transaction has been aborted after configured number of retries is reached.

Measurement Scope: All

Recovery:

No action required.

TxXsasProvTxnFailed

Measurement Group: Provisioning Exceptions

Measurement Type: Simple

Description: The total number of SOAP transactions that have failed to be started or committed.

Collection Interval: 5 min

Peg Condition: This measurement shall be incremented each time a SOAP transaction has failed to be started or committed.

Measurement Scope: All

Recovery:

No action required.

XsasProvTxnCommitted

Measurement Group: Provisioning Performance

Measurement Type: Simple

Description: The total number of SOAP transactions that have been successfully committed to the database.

Collection Interval: 5 min

Peg Condition: This measurement shall be incremented each time a SOAP transaction has been successfully committed to the database.

Measurement Scope: All

Recovery:

No action required.

A

AS
Application Server - A logical entity that hosts and executes services in an IMS network, interfacing through SIP or a similar protocol.

auto-enrolled
A subscription created in ESPR as a result of a request that is not a usual 'create subscriber' request. An auto-enrolled subscription has a profile entity created by the ESPR as part of the auto-enrollment procedure.

B

BIOS
Basic Input-Output System
Firmware on the CPU blade that is executed prior to executing an OS.

C

CAPM
Computer-aided policy making

CMOS
Complementary Metal Oxide Semiconductor
CMOS semiconductors use both NMOS (negative polarity) and PMOS (positive polarity) circuits. Since only one of the circuit types is on at any given time, CMOS chips require less power than chips using just one type of transistor.

ComAgent
Communication Agent
A common infrastructure component delivered as part of a

C

common plug-in, which provides services to enable communication of message between application processes on different servers.

Communication Agent

See ComAgent.

CPU

Central Processing Unit

CSV

Comma-separated values

The comma-separated value file format is a delimited data format that has fields separated by the comma character and records separated by newlines (a newline is a special character or sequence of characters signifying the end of a line of text).

D

DA-MP

Diameter Agent Message Processor

A DSR MP (Server Role = MP, Server Group Function = Diameter Signaling Router). A local application such as CPA can optionally be activated on the DA-MP. A computer or blade that is hosting a Diameter Signaling Router Application.

DB

Database

Diameter

Protocol that provides an Authentication, Authorization, and Accounting (AAA) framework for applications such as network access or IP mobility. Diameter works in both local and roaming AAA situations. Diameter can also be used as a signaling protocol for mobility management which is

D

typically associated with an IMS or wireless type of environment.

DNS

Domain Name System

A system for converting Internet host and domain names into IP addresses.

DSR

Diameter Signaling Router

A set of co-located Message Processors which share common Diameter routing tables and are supported by a pair of OAM servers. A DSR Network Element may consist of one or more Diameter nodes.

E

ESPR

Enhanced Subscriber Profile Repository - Oracle Communications' database system that provides the storage and management of subscriber policy control data for PCRF nodes.

ETG

Egress Throttle Group (s)

G

GUI

Graphical User Interface

The term given to that set of items and facilities which provide the user with a graphic means for manipulating screen data rather than being limited to character based commands.

H

HA

High Availability

High Availability refers to a system or component that operates on a

H

continuous basis by utilizing redundant connectivity, thereby circumventing unplanned outages.

HP Hewlett-Packard

I

IDIH Integrated Diameter Intelligence Hub

IMSI International Mobile Subscriber Identity

IPFE IP Front End
A traffic distributor that routes TCP traffic sent to a target set address by application clients across a set of application servers. The IPFE minimizes the number of externally routable IP addresses required for application clients to contact application servers.

K

KPI Key Performance Indicator

M

MP Message Processor - The role of the Message Processor is to provide the application messaging protocol interfaces and processing. However, these servers also have OAM&P components. All Message Processors replicate from their Signaling OAM's database and generate faults to a Fault Management System.

MSISDN Mobile Station International Subscriber Directory Number. The

M

unique, network-specific subscriber number of a mobile communications subscriber. MSISDN follows the E.164 numbering plan; that is, normally the MSISDN is the phone number that is used to reach the subscriber.

N

NAI

Nature of Address Indicator

Standard method of identifying users who request access to a network.

NS

Network Server

Notification subscription

NTP

Network Time Protocol

NTP daemon

Network Time Protocol daemon – NTP process that runs in the background.

O

OAM

Operations, Administration, and Maintenance

The application that operates the Maintenance and Administration Subsystem which controls the operation of many products.

OID

Object Identifier

An identifier for a managed object in a Management Information Base (MIB) hierarchy. This can be depicted as a tree, the levels of which are assigned by different organizations. Top level MIB OIDs belong to different standard

O

organizations. Vendors define private branches that include managed objects for their own products.

OOS

Out of Service

P

PCRF

Policy and Charging Rules Function. The ability to dynamically control access, services, network capacity, and charges in a network.

Maintains rules regarding a subscriber's use of network resources. Responds to CCR and AAR messages. Periodically sends RAR messages. All policy sessions for a given subscriber, originating anywhere in the network, must be processed by the same PCRF.

PNA

Push-Notification-Answer

Sent by a client in response to the Push-Notification-Request command.

PNR

Push Notification Request on Sh Interface

Sent by a Diameter server to a Diameter client in order to notify changes in the user data in the server.

PUA

Profile-Update-Answer

Command sent by a client in response to the Profile-Update-Request command.

P

PUR Sh Profile Update Request (from PCRF to ESPR). This request can refer to the profile entity and other entities.

R

RAS REST Application Server

RBAR Range Based Address Resolution
A DSR enhanced routing application which allows the user to route Diameter end-to-end transactions based on Application ID, Command Code, "Routing Entity" Type, and Routing Entity address ranges.

REPL Replication

S

SCTP Stream Control Transmission Protocol
SCTP is a reliable transport protocol that operates on top of a connectionless packet network such as IP and is functionally equivalent to TCP. It establishes a connection between two endpoints (called an association; in TCP, these are sockets) for transmission of user messages.

SDO Subscription Data Object. An SDO consists of subscription state information and a collection of registers for storing entities. An individual SDO applies to one subscriber. A pool SDO applies to a group of subscribers.

S

SNA	Subscribes Notification Answer on Sh Interface
SNO	Subscription Notification Object. An SNO stores a collection of client subscribe-to-notifications for a subscription.
SNMP	Simple Network Management Protocol. An industry-wide standard protocol used for network management. The SNMP agent maintains data variables that represent aspects of the network. These variables are called managed objects and are stored in a management information base (MIB). The SNMP protocol arranges managed objects into groups.
SNR	Subscriber Notification Request on Sh Interface
SO	Signaling OAM A server that manages a collection of MPs. SO servers are deployed in active/standby pairs.
SOAM	System Operations, Administration, and Maintenance
SOAP	Simple Object Access Protocol
SW	Software

U

U

UDA	User-Data-Answer Sent by a server in response to the User-Data-Request command.
UDR	User Data Repository - A logical entity containing user data
UDRFE	UDR Front End

X

XSAS	XML SOAP Application Server
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