Diameter Signaling Router

Diameter Custom Applications

Release 8.2

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Introduction to DCA

This section contains an overview of the available information for the Diameter Custom Applications (DCA) feature. The contents include sections on the organization, scope, and audience of the documentation, as well how to receive customer support assistance.

Revision History

Date	Description
September 2016	Initial release of DCA

Understanding DCA

The Diameter Custom Applications (DCA) framework allows for the creation of applications on top of the Diameter Signaling Router (DSR), allowing for a faster development cycle.

DCA requires several elements to function:

- An interface that interprets a scripting language in order to manage the receipt of Diameter messages or U-SBR query results
- An interface that performs basic routing functions such as selecting an Application Route Table or Peer Route Table, forwarding or dropping a Diameter message, or sending a Diameter Answer
- An infrastructure to manage the DCA's business logic and the DCA application's configuration and to generate the script to be used by the interpreting interface

Intended Scope and Audience

This content is intended for personnel who plan to provision DCA.

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

Content Organization

This content is organized as follows:

- Introduction to DCA contains general information about DCA, including overview and logic information, the organization of this content, and how to get technical assistance.
- User Interface Introduction describes the organization and usage of the 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.

- Activation and Deactivation of DCA provides information about activating and deactivating DCA.

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 1-1 Admonishments

Icon	Description
	Danger: (This icon and text indicate the possibility of personal injury.)
	Warning: (This icon and text indicate the possibility of equipment damage.)
	Caution: (This icon and text indicate the possibility of service interruption.)

Related Publications

For information about additional publications related to this document, refer to the Oracle Help Center site. See Locate Product Documentation on the Oracle Help Center Site for more information on related product publications.

Locate Product Documentation on the Oracle Help Center Site

Oracle Communications customer documentation is available on the web at the Oracle Help Center (OHC) 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 http://www.adobe.com.

1. Access the Oracle Help Center site at http://docs.oracle.com.
2. Click `Industries`.
3. Under the Oracle Communications subheading, click the `Oracle Communications documentation` link.

   The Communications Documentation page displays. Most products covered by these documentation sets display under the headings "Network Session Delivery and Control Infrastructure" and "Platforms."
4. Click on your Product and then the Release Number.

A list of the entire documentation set for the selected product and release displays.

5. To download a file to your location, right-click the `PDF` link, select `Save target as` (or similar command based on your browser), and save to a local folder.

Customer Training

Oracle University offers training for service providers and enterprises. Visit our web site to view, and register for, Oracle Communications training at http://education.oracle.com/communication

To obtain contact phone numbers for countries or regions, visit the Oracle University Education web site at 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 one of the following options:
   - For Technical issues such as creating a new Service Request (SR), Select `1`
   - For Non-technical issues such as registration or assistance with MOS, Select `2`

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

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.

2

User Interface Introduction

This section describes the organization and usage of the application's 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 within an application. It is a Web-based graphical user interface (GUI) that enables remote user access over the network to an application and its functions.

The core framework presents a common set of Main Menu options that serve various applications. The common Main Menu options are:

- Administration
- Configuration
- Alarms and Events
- Security Log
- Status and Manage
- Measurements
- Help
- Legal Notices
- Logout

Applications build upon this framework to present features and functions. Depending on your application, some or all of the following Main Menu options may display on the Network Operation, Administration, and Maintenance (**NOAM**) GUI:

- Communication Agent
- Diameter Common
- Diameter
- **UDR** (User Data Repository)
- MAP-Diameter IWF
- **RADIUS** (Remote Authentication Dial-In User Service)
- **SBR** (Session Binding Repository)

- Policy and Charging
- **DCA** (DOIC Capabilities Announcement) Framework

The DSR System OAM GUI may present even more Main Menu options as listed below. The end result is a flexible menu structure that changes according to the application needs and features activated.

- Transport Manager
- SS7/Sigtran
- RBAR (Range Based Address Resolution)
- FABR (Full Address Based Resolution)
- **GLA** (Gateway Location Application)
- MAP-Diameter IWF
- RADIUS
- SBR
- Mediation
- Policy and Charging
- DCA Framework
- IPFE (IP Front End)

Note that the System OAM (SOAM) Main Menu options differ from the Network OAM (NOAM) options. Some Main Menu options are configurable from the NOAM server and view-only from the SOAM (**SOAM**) server. This remains true for other applications.

User Interface Elements

Table 2-1 describes elements of the user interface.

Table 2-1 User Interface Elements

Element	Location	Function
Identification Banner	Top bar across the web page	The left side of the banner provides the following information: • Displays the company name, • product name and version, and • the alarm panel. The right side of the banner: • Allows you to pause any software updates. • Links to the online help for all software. • 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	A tree-structured menu of all operations that can be performed through the user interface. The plus character (+) indicates a menu item contains subfolders. • 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.

Table 2-1 (Cont.) User Interface Elements

Element	Location	Function
Work Area	Right side of panel under status	Consists of three sections: Page Title Area, Page Control Area (optional), and Page Area. • Page Title Area: Occupies the top of the work area. It displays the title of the current page being displayed, date and time, and includes a link to context-sensitive help. • Page Control Area: Located below the Page Title Area, this area shows controls for the Page Area (this area is optional). When available as 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

Table 2-1 (Cont.) User Interface Elements

Element	Location	Function
		user interface page. The page displays a user-defined welcome message. To customize the message, see Customizing the Login Message.
Session Banner	Across the bottom of the web page	The left side of the banner provides the following session information: • 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. The right side of the banner shows the alarm panel.

Main Menu Options

Table 2-2 describes all main menu user interface options.

Note: The menu options can differ according to the permissions assigned to a user's login account. For example, the Administration menu options do not display on the screen of a user who does not have administrative privileges.

Note: Some menu items are configurable only on the Network OAM and view-only on the System OAM; and some menu options are configurable only on the System OAM.

Note: Some features do not display in the main menu until the features are activated.

Table 2-2 Main Menu Options

Menu Item	Function
Administration	The Administration menu allows the user to: • General Options. Configure options such as password history and expiration, login message, welcome message, and the number of failed login attempts before an account is disabled • Set up and manage user accounts • Configure group permissions • View session information • Manage sign-on certificates • Authorize IP addresses to access the user interface • Configure **SFTP** user information • View the software versions report • Upgrade management including backup and reporting • Authenticate **LDAP** servers • Configure **SNMP** trapping services • Configure an export server • Configure **DNS** elements
Configuration	On the NOAM, allows the user to configure: • Network Elements • Network Devices • Network Routes • Services • Servers • Server Groups • Resource Domains • Places • Place Associations • Interface and Port **DSCP**
Alarms and Events	Allows the user to view: • Active alarms and events • Alarm and event history • Trap log
Security Log	Allows the user to view, export, and generate reports from security log history.
Status and Manage	Allows the user to monitor the individual and collective status of Network Elements, Servers, HA functions, Databases, **KPI**s, system Processes, and Tasks. The user can perform actions required for server maintenance, database management, data, and ISO file management.
Measurements	Allows the user to view and export measurement data.

Table 2-2 (Cont.) Main Menu Options

Menu Item	Function
Transport Manager (optional)	On the SOAM, allows the user to configure adjacent nodes, configuration sets, or transports. A maintenance option allows the user to perform enable, disable, and block actions on the transport entries. This option only displays with the DSR application.
Communication Agent (optional)	Allows the user to configure Remote Servers, Connection Groups, and Routed Services. The user can perform actions to enable, disable, and block connections. Also allows the user to monitor the status of Connections, Routed Services, and **HA** Services.
SS7/Sigtran (optional)	On the SOAM, allows the user to configure various users, groups, remote signaling points, links, and other items associated with SS7/Sigtran; perform maintenance and troubleshooting activities; and provides a command line interface for bulk loading SS7 configuration data. This option only displays with the DSR application.
Diameter Common (optional)	Allows the user to view or configure: • Dashboard, configure on the NOAM; view on both OAMs • Network Identifiers on the SOAM - MCC Ranges • Network Identifiers on the NOAM - **MCCMNC** and MCCMNC Mapping • MPs (on the SOAM) - editable Profile parameters and Profile Assignments The DSR Bulk Import and Export functions are available on both OAMs for the data configured on that OAM.
Diameter (optional)	Allows the user to configure, modify, and monitor Diameter routing: • On the NOAMP, Diameter Topology Hiding and Egress Throttle List configuration • On the SOAM, Diameter Configuration, Maintenance, Reports, Troubleshooting with **IDIH**, **AVP** Dictionary, and Diameter Mediation configuration
UDR (User Data Repository) (optional)	Allows the user to add, edit, store, and manage subscriber and pool data. The user can also monitor the import, export, and subscribing client status. This option only displays with the UDR application.

Table 2-2 (Cont.) Main Menu Options

Menu Item	Function
RBAR (Range-Based Address Resolution) (optional)	Allows the user to configure the following Range-Based Address Resolution (RBAR) settings: • Applications • Exceptions • Destinations • Address Tables • Addresses • Address Resolutions • System Options This is accessible from the SOAM only. This option only displays with the DSR application.
FABR (Full Address Based Resolution) (optional)	Allows the user to configure the following Full Address Based Resolution (FABR) settings: • Applications • Exceptions • Default Destinations • Address Resolutions • System Options This is accessible from the SOAM only. This option is only available with the DSR application.
Gateway Location Application (optional)	On the SOAM, allows the user to perform configuration tasks, edit options, and view elements for: • Exceptions • Options GLA can deploy with Policy DRA (in the same DA-MP or a separate DA-MP). This option only displays with the DSR application.
MAP-Diameter Interworking (optional)	On the SOAM, allows the user to perform configuration tasks, edit options, and view elements for the DM-IWF DSR Application: • DM-IWF Options • Diameter Exception On the NOAMP, allows the user to perform configuration tasks, edit options, and view elements for the MD-IWF **SS7** Application: • **MD-IWF** Options • Diameter Realm • Diameter Identity **GTA** • GTA Range to PC • **MAP** Exception • **CCNDC** Mapping This option only displays with the DSR application.

Table 2-2 (Cont.) Main Menu Options

Menu Item	Function
RADIUS (Remote Authentication Dial-In User Service) (optional)	Allows the user to perform configuration tasks, edit system options, and view elements for: • Network Options • Message Authenticator Configuration Sets • Shared Secret Configuration Sets • Ingress Status Server Configuration Sets • Message Conversion Configuration Sets • **NAS** Node This option only displays with the DSR application.
SBR (Session Binding Repository) (optional)	Allows the user to perform configuration tasks, edit system options, and view elements for: • **SBR** Databases • SBR Database Resizing Plans • SBR Data Migration Plans • Database Options Additionally, on the NOAMP, users are allowed to perform maintenance tasks, edit options, and view elements for: • Maintenance – SBR Database Status – SBR Status – SBR Database Reconfiguration Status This option only displays with the DSR application.
Mediation	Allows the user to make routable decisions to end the reply, drop the message, or set the destination realm.

Table 2-2 (Cont.) Main Menu Options

Menu Item	Function
Policy and Charging (optional)	On the NOAMP, allows the user to perform configuration tasks, edit options, and view elements for: • General Options • Access Point Names • Policy DRA – PCRF Pools – PCRF Sub-Pool Selection Rules – Network-Wide Options • Online Charging DRA – OCS Session State – Realms – Network-Wide Options • Alarm Settings • Congestion Options Additionally on the **NOAMP**, users are allowed to perform maintenance tasks, edit options, and view elements for: • Maintenance – SBR Database Status – SBR Status – SBR Database Reconfiguration Status – Policy Database Query On the SOAM, allows the user to perform configuration tasks, edit options, and view elements for: • General Options • Access Point Names • Policy DRA – PCRFs – Binding Key Priority – **PCRF** Pools – PCRF Pool to **PRT** Mapping – PCRF Sub-Pool Selection Rules – Policy Clients – Suspect Binding Removal Rules – Site Options • Online Charging **DRA** – OCSs – **CTF**s – **OCS** Session State – Realms • Error Codes • Alarm Settings • Congestion Options This option only displays with the DSR application.

Table 2-2 (Cont.) Main Menu Options

Menu Item	Function
DCA Framework (optional)	Allows the user to perform configuration tasks, edit system options, and view elements for DCA applications: • Custom **MEAL**s (Measurements, Events, Alarms, and Logs) • General Options • Trial **MP**s assignment • Application Control • System Options
IPFE (optional)	Allows the user to configure IP Front End (IPFE) options and **IP** List **TSA**s. This is accessible from the SOAM server only. This option only displays with the DSR application.
Help	Launches the Help system for the user interface
Legal Notices	Product Disclaimers and Notices
Logout	Allows the user to log out of the user interface

Missing Main Menu options

Permissions determine which Main Menu options are visible to users. Permissions are defined through the Group Administration page. The default group, admin, is permitted access to all GUI options and functionality. Additionally, members of the admin group set permissions for other users.

Main Menu options vary according to the group permissions assigned to a user's account. Depending on your user permissions, some menu options may be missing from the Main Menu. For example, Administration menu options do not display on your screen if you do not have administrative permissions. For more information about user permissions, see *Group Administration* in the OAM section of the online help, or contact your system administrator.

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.

Supported Browsers

This application supports the use of Microsoft® Internet Explorer 8.0, 9.0, or 10.0.

is designed to work with most modern HTML5 compliant browsers and uses both JavaScript and cookies. Please refer to the Oracle Software Web Browser Support Policy for details

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 the password upon login. The System Login page also features a date and time stamp reflecting the time the page was last refreshed. Additionally, a customizable login message displays just below the **Log In** button.

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 to gain access.

Customizing the Login Message

Before logging in, the System Login page displays. You can create a login message that displays just below the **Log In** button on the System Login page.

Figure 2-1 Oracle System Login

1. From the **Main Menu**, click **Administration** > **General Options**.
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 displays at the top of the Configuration Administration page to inform you if the operation was successful.

The next time you log into the user interface, the login message text displays.

Accessing the DSR Graphical User Interface

In DSR, some configuration is done at the **NOAM** server, while some is done at the **SOAM** server. Because of this, you need to access the DSR graphical user interface (GUI) from two servers. Certificate Management (Single Sign-On) can be configured to simplify accessing the DSR GUI on the NOAM and the SOAM.

For information on configuring Single Sign-On certificates, see **OAM** > **Administration** > **Access Control** > **Certificate Management** in the DSR online help.

After the certificates have been configured, you can log into the DSR GUI on any NOAM or SOAM, and access the DSR GUI on other servers (NOAM or other SOAMs) without having to re-enter your login credentials.

1. In the browser URL field, enter the fully qualified hostname of the NOAM server, for example https://dsr-no.yourcompany.com.

   When using Single Sign-On, you cannot use the IP address of the server.

2. When prompted by the browser, confirm that the server can be trusted.

   The System Login page displays.

3. Enter the Username and Password for your account.

   The DSR GUI for the NOAM displays.

4. To access the DSR GUI for the SOAM, open another browser window and enter the fully qualified hostname of the SOAM.

   The DSR GUI for the SOAM displays.

You can toggle between the DSR GUI on the NOAM and the DSR GUI on the SOAM as you perform configuration tasks.

Main Menu Icons

This table describes the icons used in the Main Menu.

Table 2-3 Main Menu Icons

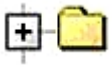
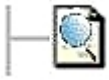
Icon	Name	Description
	Folder	Contains a group of operations. If the folder is expanded by clicking the plus (+) sign, all available operations and sub-folders are displayed. Clicking the minus (-) collapses the folder.

Table 2-3 (Cont.) Main Menu Icons

Icon	Name	Description
	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.
	Task	Contains operations related to Tasks
	Help	Launches the Online Help.
	Logout	Logs the user out of the user interface.

Work Area Displays

In the user interface, tables, forms, tabbed pages, and reports are the most common formats.

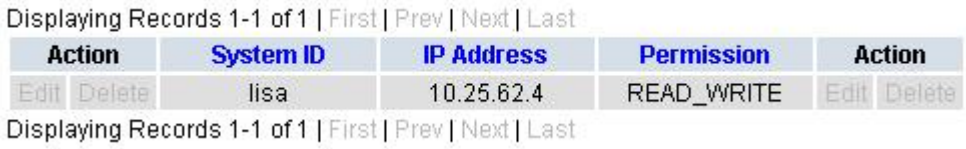
Note: Screen shots are provided for reference only and may not exactly match a specific application's GUI.

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

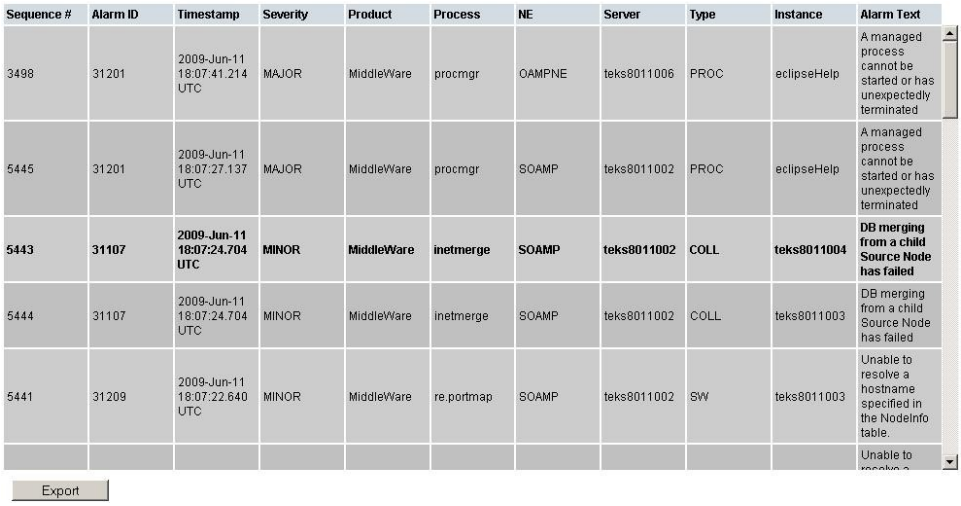
action links on the beginning and end of each row. For more information on action links and other page controls, see Page Controls.

Figure 2-2 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.

Figure 2-3 Scrollable Table

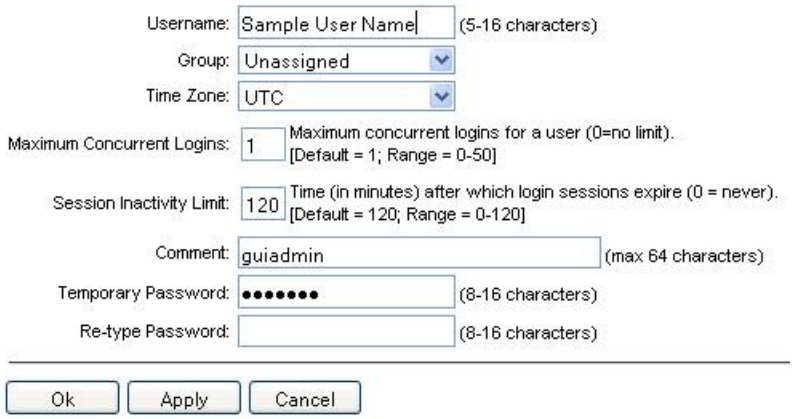


Note: Multiple rows can be selected in a scrollable table. Add rows one at a time using CTRL-click. Add a span of rows using SHIFT-click.

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 lists, buttons, and links.

Figure 2-4 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 populate on the page. Retrieve is always the default for tabbed pages.

Figure 2-5 Tabbed Pages

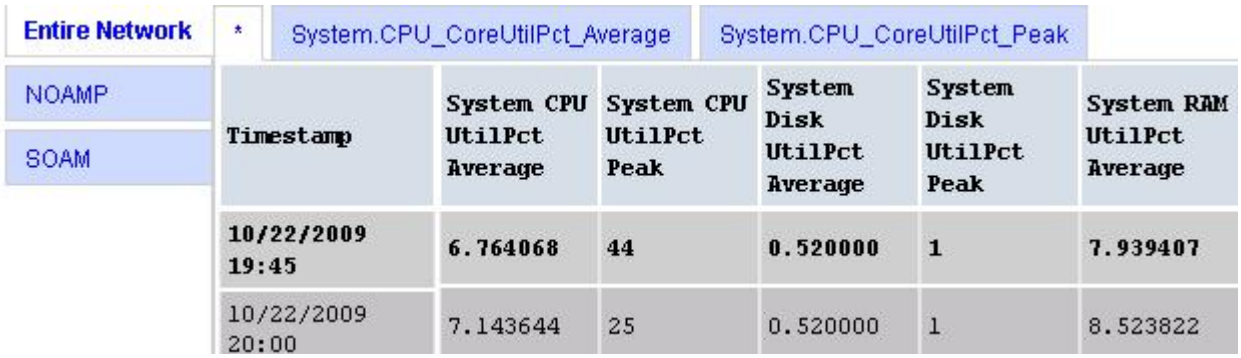
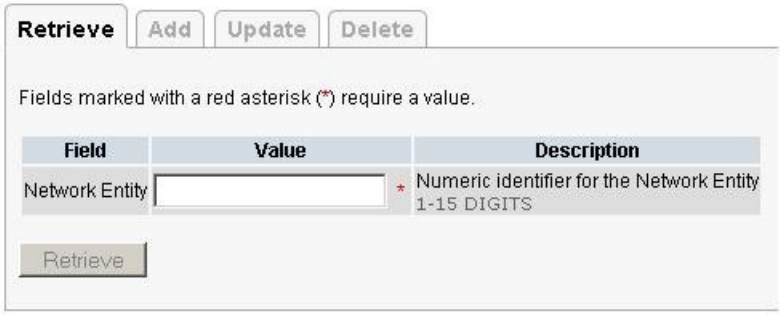


Figure 2-6 Tabbed Pages



Reports

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

Figure 2-7 Report Output

```
================================================================================

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

================================================================================
```

Customizing the Splash Page Welcome Message

When you first log into the user interface, the splash page displays. Located in the center of the main work area is a customizable welcome message. Use this procedure to create a message suitable for your needs.

1. From the **Main Menu**, click **Administration** > **General Options**.
2. Locate **Welcome Message** in the **Variable** column.
3. Enter the desired welcome message text in the **Value** column.
4. Click **OK** to save the change or **Cancel** to undo the change and return the field to the previously saved value.

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

The next time you log into the user interface, the new welcome message text displays.

Column Headers (Sorting)

You can sort a table by a column by clicking the column header. However, sorting is not necessarily available on every column. Sorting does not affect filtering.

When you click the header of a column in a table that can be sorted, an indicator displays in the column header showing the direction of the sort. See Figure 2-8. Clicking the column header again reverses the direction of the sort.

Figure 2-8 Sorting a Table by Column Header

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 2-4 contains examples of Action buttons.

Table 2-4 Example Action Buttons

Action Button	Function
Insert	Inserts data into a table.
Edit	Edits data within a table.
Delete	Deletes data from table.
Change	Changes the status of a managed object.

Some Action buttons take you to another page.

Submit buttons, described in Table 2-5, 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 2-5 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.

Clear Field Control

The clear field control allows you to clear the value from a list. The clear field control is available only on some lists.

Click the **X** next to a list to clear the field.

Figure 2-9 Clear Field Control X

Optional Layout Element Toolbar

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

Figure 2-10 Optional Layout Element Toolbar

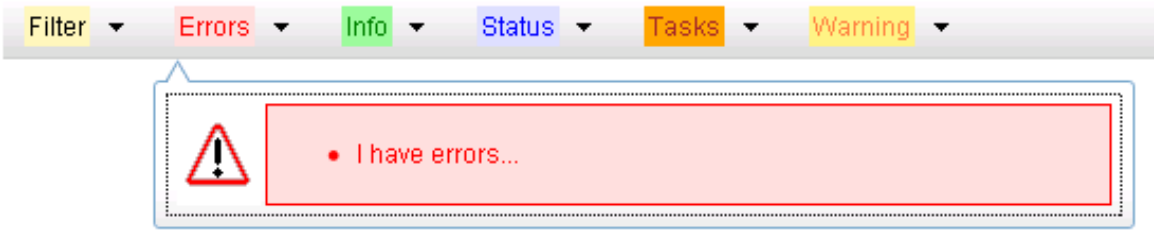
The toolbar displays different elements depending on which GUI page is selected. The elements of the toolbar that can display include:

- 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 2-11 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.

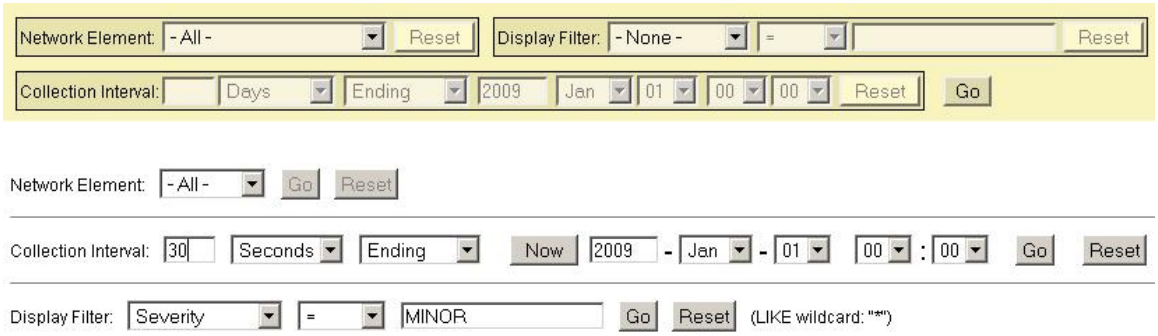
  Note: Once enabled, the Network Element filter affect all pages that list or display data relating to the Network Element.

- 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 2-12 Examples of Filter Styles



Filter Control Elements

This table describes filter control elements of the user interface.

Table 2-6 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.

Table 2-6 (Cont.) Filter Control Elements

Operator	Description
>=	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 are 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.
2. Select a Network Element from the **Network Element** list.
3. Click **Go** to filter on the selection or click **Reset** to clear the selection.
4. For data tables that support compound filtering, click **Add** to add another filter condition and repeat steps 2 through 4.

   Multiple filter conditions are joined by an AND operator.

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.
2. Enter a duration for the **Collection Interval** filter.

   The duration must be a numeric value.

3. Select a unit of time from the list.

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

4. Select **Beginning** or **Ending** from the list.

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 you have a data table displayed on your screen with the Display Filter field. This process is the same for all data tables. However, all filtering operations are not available for all tables.

> **Note:** Display Filter does not support compound filtering. For example, you cannot filter on both severity and a server name. Try to filter on a single filter criteria, such as the server hostname for server-scoped metric cells; or the application name for St- and NE-scoped metric cells. You can also sort by congestion level (descending) to help improve your filter.

1. Click **Filter** in the optional layout element toolbar.

2. Select a field name from the **Display Filter** list.

   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.

3. Select an operator from the operation selector list.

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.

> **Note:** PCA was known as PDRA and may still be seen in some filtering.

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**, click **Administration** > **General Options**.
2. Change the value of the **MaxRecordsPerPage** variable.

   Note: **Maximum Records Per Page** 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.

3

Activation and Deactivation of DCA

This chapter provides basic descriptions for activating and deactivating the DCA Framework and DCA applications.

DCA Activation

In order to use new applications for **DCA**, the DCA Framework must be activated on the NO. Activation needs to be performed only once.

Once developed, a new application then must be activated on the NO. Activation needs to be performed once per application.

> **Note:** There may be limits on the number of DCA applications that can be simultaneously activated. Old DCA applications may need to be deactivated in order to make room for new applications.

Activating the DCA Framework

This procedure is used to activate the DCA Framework.

1. Log out of any active NOAM GUI sessions.
2. Use an SSH client to connect to the server as **admusr**.

   ```
   # ssh <active NOAM XMI IP Address>
   ```

3. Change to the feature activation directory.

   ```
   # cd /usr/TKLC/dsr/prod/maint/loaders/
   ```

4. Execute the feature activation script.

   ```
   # ./featureActivateDeactivate
   ```

   a. Choose the **Activate** and **DCA Framework** options.

   b. There is an option to choose to activate this feature on all SOAMs or on a specific SOAM.

      If a new site is added or if, on some site, framework was not activated, the activation script can be executed again to add the application on new sites. The script won't have any impact on the sites on which the framework is already active.

   c. Verify that the screen output is similar to:

      ```
      [admusr@HPC07-NO1 loaders]$ ./featureActivateDeactivate
      Tue Feb  2 17:47:18 EST 2016::Starting featureActivateDeactivate main...
      ```

```
Start the Automation script , To run the Feature Activation/DeActivation
on Active NO.

You want to Activate or Deactivate the Feature :
1.Activate
2.Deactivate

Enter your choice : 1

List of Feature you can Activate :
1.RBAR
2.FABR
3.Mediation
4.LoadGen
5.GLA
6.MAP Interworking
7.DTLS
8.Dca Framework
9.Dca Application

Enter the choice : 8

Run script to Activate DcaFramework Feature

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=============================================================================
=====
Execution of Activation/Deactivation Process Starts
=============================================================================
=====
Starting Activation/Deactivation process....
Executing /usr/TKLC/dsr/prod/maint/loaders/activate/
load.DcaFrameworkActivateAsourced script on HPC07-NO1
=============================================================================
=====
Current server is HA ACTIVE
=============================================================================
=====
=============================================================================
=====
Add Dca Framework KPI group
=============================================================================
=====
KPI_Group=Dca Framework
Visibility=VIS_ALL
================================
=============================================================================
=====
Add Dca Framework Measurement groups
=============================================================================
=====
Meas_Group=Dca Framework Performance
Visibility=VIS_ALL
================================
=============================================================================
=====
Add Dca Framework GUI Configuration Permissions.
=============================================================================
=====
```
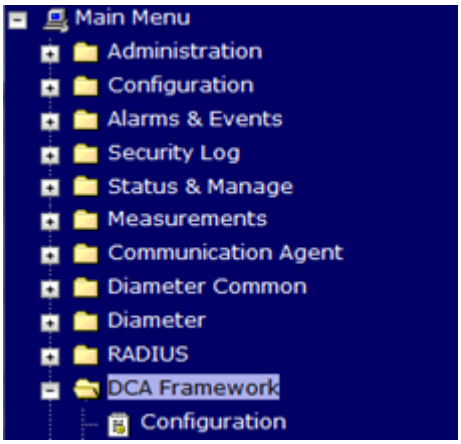

```
================================================================================
=====
Set Dca Framework Entry in the DcaFrmEngOption table
================================================================================
=====
  === changed 1 records ===
================================================================================
=====
There is no Standby NOAMP server configured in the Topology
================================================================================
=====
================================================================================
=====
The Active SO server configured in the Topology are
================================================================================
=====
1. HPC07-SO1
2. ALL SOs

Enter your choice on which SO you want to Activate or Deactivate the
Feature :2
Activate/Deactivate DcaFramework on all SOs configured in the Topology

================================================================================
=====
This is a 3 Tier Setup , So run the B sourced loaders on SO server : HPC07-
SO1
Executing /usr/TKLC/dsr/prod/maint/loaders/activate/
load.DcaFrameworkActivateBsourced script on HPC07-SO1
FIPS integrity verification test failed.
Add Dca Framework GUI Configuration Permissions.
FIPS integrity verification test failed.
================================================================================
=====
Executing the Loaders and Clearing Cache on Standby SO servers.
================================================================================
=====
================================================================================
=====
There is no Standby/Spare SOAMP server configured in the Topology
================================================================================
=====
```

5. Log into the Active NOAM and SOAM GUI.
6. Verify that DCA Framework appears as a menu item on the NOAM and SOAM.
7. Log out of the NOAM login shells using the `# exit` command and close the SSH connections.

Post Framework Activation

Once the DCA Framework is activated, the **DCA Framework** folder and **Configuration** file becomes visible on the left hand menu as shown in Figure 3-1.

Figure 3-1 DCA Framework Menu



All the KPIs and measurements associated with the DCA Framework also become visible as shown in Figure 3-2 and Figure 3-3 respectively.

Figure 3-2 DCA KPIs

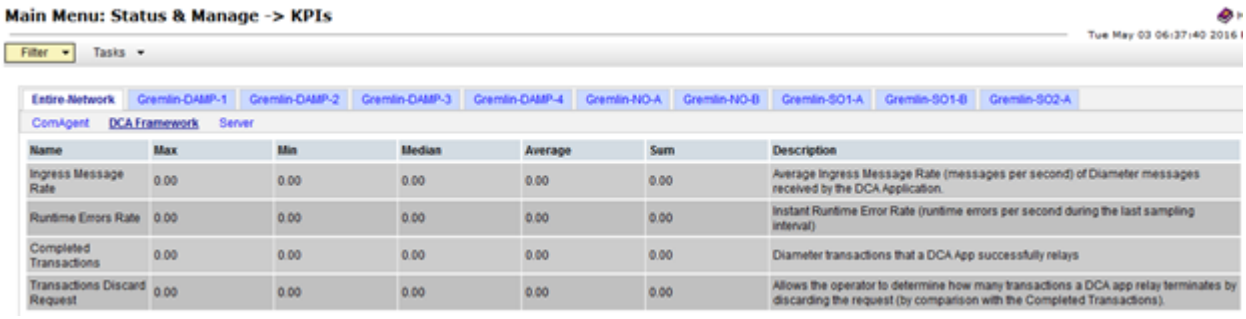
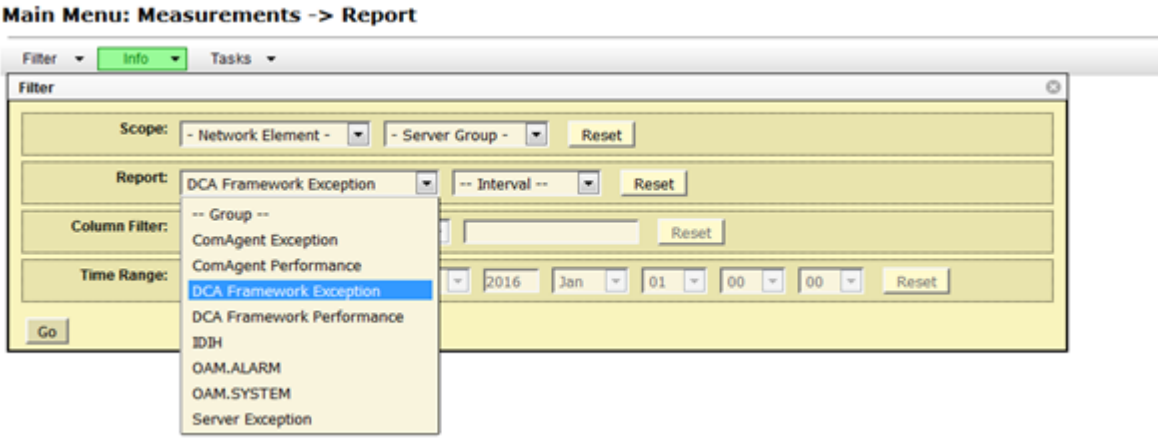


Figure 3-3 DCA Measurements



Activating a DCA Application

This procedure is used to activate a DCA application.

1. Log out of any active NOAM GUI sessions.
2. Use an SSH client to connect to the server as **admusr**.

```
# ssh <active NOAM XMI IP Address>
```

3. Change to the feature activation directory.

```
# cd /usr/TKLC/dsr/prod/maint/loaders/
```

4. Execute the feature activation script.

```
# ./featureActivateDeactivate
```

   a. Choose **Activate** and **DCA Application**.

   b. Enter a long name for the new application when prompted.

> **Note:** The DCA application long name consists of a combination of letters, numbers, and spaces. It can't begin with a space and has a maximum of 32 characters.

   c. Enter a short name for the application when prompted.

> **Note:** The DCA application short name consists of a combination of letters and numbers. It has a maximum of 6 characters.

   d. Verify that the screen output is similar to:

```
[admusr@HPC07-NO1 loaders]$ ./featureActivateDeactivate
Tue Feb  2 17:52:59 EST 2016::Starting featureActivateDeactivate main...
Start the Automation script , To run the Feature Activation/DeActivation
on Active NO.

You want to Activate or Deactivate the Feature :
1.Activate
2.Deactivate

Enter your choice : 1

List of Feature you can Activate :
1.RBAR
2.FABR
3.Mediation
4.LoadGen
5.GLA
6.MAP Interworking
7.DTLS
8.Dca Framework
9.Dca Application

Enter the choice : 9

============= Start of Log Data in file /var/TKLC/log/
DcaActivationTopLevel.log ===============


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Log file location: /var/TKLC/log/DcaActivationTopLevel.log
```

```
Note:-
In case of any failure please execute /usr/TKLC/dsr/prod/maint/loaders/
deactivate/load.DcaDeactivationTopLevel script to revert the changes.

================================================================================
=====
Execution of Activation Process Starts
================================================================================
=====
Dca framework is activated on the setup..Continuing
Following Dca apps are activated on the system:
First Dca App
Enter the long name for the Dca application:Second DCA App
Entered dca name Second DCA App consist of valid characters
Entered Name is Second DCA App
next available dal id is 129
Enter the short name for the Dca application:sda
length of shortName is 3.continuing..
Entered dca name sda consist of valid characters
Entered Name is sda
================================================
Verify that Dca Application is in the DalId table
================================================
dalId=129
birthTime=02/02/2016 17:53:22.000
name=Second DCA App
shortName=sda
activated=No
================================
================================================
Verify that Dca Application is in the DcaDalId table
================================================
dalId=129
name=Second DCA App
shortName=sda
================================
Executing /usr/TKLC/dsr/prod/maint/loaders/activate/
load.DcaActivateAscoped script on HPC07-NO1

============= Start of Log Data in file /var/TKLC/log/
DcaActivateAscoped.log ===============

Server Name  : HPC07-NO1
Server Role  : NETWORK_OAMP
Node Id      : HPC07-NO1
HA State     : Active
Cluster Role : Primary
============================================================
Add Dca application entry to the DsrApplication table.
============================================================
================================================
Verify that Dca Application is in the table
================================================
id=129
name=sda
unavailableAction=ContinueRouting
avpInsertion=Yes
shutdownMode=Graceful
shutdownTimer=5
resultCode=3002
vendorId=0
```

```
errorString=Dca Application Unavailable Or Degraded
resExhResultCode=3004
resExhVendorId=0
resExhErrorString=Dca Resource Exhausted
routeListId=-1
realm=
fqdn=
mcl=0
================================
================================
Add Dca Application KPI group
================================
========================================
Add Dca Application Measurement groups
========================================
================================================
Add Permission Group headers for Dca Application
================================================
================================================
Add network configuration parameters for Dca
================================================

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D====================================

Execution status of activation script on HPC07-NO1: PASSED
Please check /var/TKLC/log/DcaActivateAscoped.log for more details.

================================================================================
=====
Starting Activation on StandBy NOAMP Server if it exists in the topology.

HPC07-NO1 is Active and Primary NOAMP Server. So, proceeding with next
NOAMP Server.
======= Activation done on all Network OAMP Servers  =======

======= Starting Activation on System OAM servers =======

================================================================================
=====
HPC07-SO1 is Active. So, proceeding with Activation.
FIPS integrity verification test failed.
Executing /usr/TKLC/dsr/prod/maint/loaders/activate/
load.DcaActivateBscoped script on HPC07-SO1
FIPS integrity verification test failed.

============= Start of Log Data in file /var/TKLC/log/
DcaActivateBscoped.log ===============

Server Name : HPC07-SO1
Server Role: SYSTEM_OAM
Node Id    : HPC07-SO1
HA State   : Active
============================================================================
Add Dca application to DsrApplication. If already present then skip.
============================================================================
============================================
Verify that Dca application is in the table
============================================
id=129
name=sda
```

```
unavailableAction=ContinueRouting
avpInsertion=Yes
shutdownMode=Graceful
shutdownTimer=5
resultCode=3002
vendorId=0
errorString=
resExhResultCode=3004
resExhVendorId=0
resExhErrorString=Dca Resource Exhausted
routeListId=-1
realm=
fqdn=
mcl=0
================================
============================================================
Add Permission Group headers for Dca app on SOAM server
============================================================
================================================
Add system configuration parameters for Dca
================================================
================================================END=========================
=====

Execution status of activation script on HPC07-SO1: PASSED
Please check /var/TKLC/log/DcaActivateBscoped.log.HPC07-SO1 for more
details.
FIPS integrity verification test failed.
FIPS integrity verification test failed.
================================================================================
=====
  === changed 1 records ===
============================================
Verify that activated field is udpated for Dca Application in the DalId
table
============================================
dalId=129
birthTime=02/02/2016 17:53:22.000
name=Second DCA App
shortName=sda
activated=Yes
================================
================================================================================
=====
Execution of Dca Applicaion Activation Script complete.
================================================================================
=====
====================================E-N-
D====================================
```

e. Restart the DSR MP from **Main Menu** > **Status & Manage** > **Server**.

5. Log into an Active NOAM and SOAM GUI.

6. Verify that DCA Application folder appears under the DCA Framework menu item on an NOAM and SOAM.

   a. Verify that the folder for the new DCA application appears under DCA Framework on an NOAM. Under the application folder has General Options, Trial MP assignment, and Application Control sub-options.

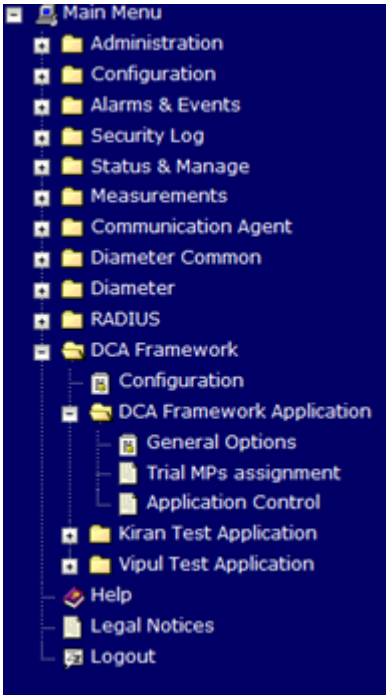
b. Verify that the folder for the new DCA application appears under DCA Framework on an SOAM. Under the application folder has General Options, Trial MP assignment, and Application Controll, and System Options sub-options.

7. Log out of the NOAM login shells using the `# exit` command and close the SSH connections.

Post Application Activation

When the new DCA application is activated, the application subfolder with the name provided by the user during the activation procedure becomes visible on the left side menu as shown in Figure 3-4. The application subfolder includes the pages for enabling the business logic and provisioning configuration data. The application becomes visible across DSR. For further details on a specific application, refer to the user's guide for that specific application.

Figure 3-4 DCA Application Menu



Post-Activation DCA Application State

After activation, a DCA application is in the disabled state. While in the disabled state, Diameter traffic is not delivered to the application. The application must be enabled from **Diameter** > **Maintenance** > **Applications**. The application is identified by the name configured by the user during the activation of the application.

Regardless of whether or not a DCA application is enabled or disabled, no version of the application is provisioned. No version is in the production or trial state. As long as no production or trial version is available for a **DA-MP** to run, the application's operational status is unavailable (see **Diameter** > **Maintenance** > **Applications** on the SO). An Application Route Table (**ART**) must also be defined for the new application (see **Diameter** > **Configuration** > **Application Route Tables**.

Afterward, the configuration and business logic for the DCA application are provisioned.

DCA Deactivation

To deactivate DCA, an application and the DCA Framework must be removed.

Deactivating a DCA Application

This procedure is used to deactivate a DCA application.

1. Log out of any active NOAM GUI sessions.
2. Use an SSH client to connect to the server as **admusr**.

   ```
   # ssh <active NO XMI IP Address>
   ```

3. Change to the feature deactivation directory.

   ```
   # cd /usr/TKLC/dsr/prod/maint/loaders/
   ```

4. Execute the feature activation script.

   ```
   # ./featureActivateDeactivate
   ```

   a. Choose **Deactivate** and **DCA Application**.

   b. Enter the name for the application to be deactivated when prompted.

   c. Verify that the screen output is similar to:

   ```
   [admusr@HPC07-NO1 loaders]$ pwd
   /usr/TKLC/dsr/prod/maint/loaders
   [admusr@HPC07-NO1 loaders]$ ./featureActivateDeactivate
   Tue Feb  2 17:59:21 EST 2016::Starting featureActivateDeactivate main...
   Start the Automation script , To run the Feature Activation/DeActivation
   on Active NO.

   You want to Activate or Deactivate the Feature :
   1.Activate
   2.Deactivate

   Enter your choice : 2

   Which Feature you want to Deactivate :
   1.RBAR
   2.FABR
   3.Mediation
   4.LoadGen
   5.GLA
   6.MAP Interworking
   7.DTLS
   8.Dca Framework
   9.Dca Application

   Enter your choice : 9

   ================================  S-T-A-R-T of log
   DcaDeactivationTopLevel.log ===========
   Log file location: /var/TKLC/log/DcaDeactivationTopLevel.log
   ================================================================================
   ```

```
=====Execution of Deactivation Process Starts
================================================================================
=====Following Dca apps are activated on the system
1. FDA
2. sda
Enter the name for the Dca application to be deactivated:sda
The name of application selected to deactivate is: sda
  === changed 1 records ===
=========================================================
DalId Table successfully updated with deactivated status.
=========================================================

================================================================================
=====
HPC07-SO1 is Active. So, proceeding with Deactivation.
FIPS integrity verification test failed.
Executing /usr/TKLC/dsr/prod/maint/loaders/deactivate/
load.DcaDeactivateBscoped script on HPC07-SO1
FIPS integrity verification test failed.

============= Start of Log Data in file /var/TKLC/log/
DcaDeactivateBscoped.log ===============

Server Name : HPC07-SO1
Server Role: SYSTEM_OAM
Node Id    : HPC07-SO1
HA State   : Active
=========================================================
Remove the ART rules corresponding to the DCA
=========================================================
No rules configured for the current application.
=================================================
Remove Dca from DcaAppSystemUserOption table
=================================================
  === deleted 5 records ===
=========================================================
Remove Dca Application from DsrApplicationPerMp table
=========================================================
  === deleted 0 records ===
=================================================
Remove Dca Application from DsrApplication table
=================================================
  === deleted 1 records ===
=====================================================================
Remove permission group headers for Dca Application on SOAM server
=====================================================================
  === deleted 1 records ===
=============================================END=========================
=====

Execution status of deactivation script on HPC07-SO1: PASSED
Please check /var/TKLC/log/DcaDeactivateBscoped.log.HPC07-SO1 for more
details.
FIPS integrity verification test failed.
FIPS integrity verification test failed.
================================================================================
=====

================================================================================
=====
 Starting Deactivation on Standby NOAMP server if present in topology.
```

```
================================================================================
=====

HPC07-NO1 is Active NOAMP Server. Proceeding with next NOAMP server in the
list.

================================================================================
=====
 Starting Deactivation on Active NOAMP server.
================================================================================
=====

Executing /usr/TKLC/dsr/prod/maint/loaders/deactivate/
load.DcaDeactivateAscoped script on HPC07-NO1

============= Start of Log Data in file /var/TKLC/log/
DcaDeactivateAscoped.log ===============

Server Name  : HPC07-NO1
Server Role  : NETWORK_OAMP
Node Id      : HPC07-NO1
HA State     : Active
Cluster Role : Primary
===================================
Remove Dca Application KPI groups
===================================
  === deleted 1 records ===
==========================================
Remove Dca Application Measurement groups
==========================================
  === deleted 1 records ===
=====================================================
Remove permission group headers for Dca Application
=====================================================
  === deleted 1 records ===
================================================
Remove logical to physical sbr db mapping from
DcaLog2PhySbr and DcaLogicalSbr table
================================================
================================================
Remove Dca from DcaLifecycleNoam table
================================================
  === deleted 0 records ===
================================================
Remove Dca from DcaAppNetworkUserOption table
================================================
  === deleted 3 records ===
================================================
Remove Dca from DcaTrialMp table
================================================
  === deleted 0 records ===
================================================
Remove Dca from DsrApplicationPerMp table
================================================
  === deleted 0 records ===
================================================
Remove Dca Application from DsrApplication table
================================================
  === deleted 1 records ===
  === deleted 1 records ===
  === deleted 1 records ===
```

```
====================================END=================================
===

Execution status of deactivation script on HPC07-NO1: PASSED
=========================================================================
=====Execution of Dca Application Deactivation Script complete.
=========================================================================
=====
====================================E-N-
D=================================
```

d. Restart the DSR MP from **Main Menu** > **Status & Manage** > **Server**.

5. Log into an Active NOAM and SOAM GUI.
6. Verify that the specific DCA application folder disappears as a menu item on the NOAM and SOAM..
7. Log out of the NOAM login shells using the `# exit` command and close the SSH connections.

Post Application Deactivation

Deactivating a DCA application is not allowed as long as versions of the the application are still in the production and/or trial states.

After deactivation, the application's GUI fold under the **DCA Framework** menu item disappears. The application is deregistered from the ART, its KPIs and measurements are no longer displayed, and are no longer reported.

Deactivating the DCA Framework

This procedure is used to deactivate the DCA Framework.

1. Log out of any active NOAM GUI sessions.
2. Use an SSH client to connect to the server as **admusr**.

   ```
   # ssh <active NO XMI IP Address>
   ```

3. Change to the feature deactivation directory.

   ```
   # cd /usr/TKLC/dsr/prod/maint/loaders/
   ```

4. Execute the feature activation script.

   ```
   # ./featureActivateDeactivate
   ```

   a. Choose the **Deactivate** and **DCA Framework** options.

   b. For 3-Tiered Architecture, you can deactivate this feature on all SOAMs or on a specific SOAM

   c. Verify that the screen output is similar to:

   ```
   [admusr@HPC07-NO1 loaders]$ pwd
   /usr/TKLC/dsr/prod/maint/loaders
   [admusr@HPC07-NO1 loaders]$ ./featureActivateDeactivate
   Tue Feb  2 17:59:21 EST 2016::Starting featureActivateDeactivate main...
   Start the Automation script , To run the Feature Activation/DeActivation
   on Active NO.
   ```

```
You want to Activate or Deactivate the Feature :
1.Activate
2.Deactivate

Enter your choice : 2

Which Feature you want to Deactivate :
1.RBAR
2.FABR
3.Mediation
4.LoadGen
5.GLA
6.MAP Interworking
7.DTLS
8.Dca Framework
9.Dca Application

Enter your choice : 9

================================  S-T-A-R-T of log
DcaDeactivationTopLevel.log ===========
Log file location: /var/TKLC/log/DcaDeactivationTopLevel.log
================================================================================
=====Execution of Deactivation Process Starts
================================================================================
=====Following Dca apps are activated on the system
1. FDA
2. sda
Enter the name for the Dca application to be deactivated:sda
The name of application selected to deactivate is: sda
  === changed 1 records ===
=========================================================
DalId Table successfully updated with deactivated status.
=========================================================

================================================================================
=====
HPC07-SO1 is Active. So, proceeding with Deactivation.
FIPS integrity verification test failed.
Executing /usr/TKLC/dsr/prod/maint/loaders/deactivate/
load.DcaDeactivateBscoped script on HPC07-SO1
FIPS integrity verification test failed.

============= Start of Log Data in file /var/TKLC/log/
DcaDeactivateBscoped.log ===============

Server Name : HPC07-SO1
Server Role: SYSTEM_OAM
Node Id    : HPC07-SO1
HA State   : Active
=========================================================
Remove the ART rules corresponding to the DCA
=========================================================
No rules configured for the current application.
================================================
Remove Dca from DcaAppSystemUserOption table
================================================
  === deleted 5 records ===
=========================================================
Remove Dca Application from DsrApplicationPerMp table
```

```
=====================================================
  === deleted 0 records ===
=================================================
Remove Dca Application from DsrApplication table
=================================================
  === deleted 1 records ===
=====================================================================
Remove permission group headers for Dca Application on SOAM server
=====================================================================
  === deleted 1 records ===
=============================================END=========================
=====

Execution status of deactivation script on HPC07-SO1: PASSED
Please check /var/TKLC/log/DcaDeactivateBscoped.log.HPC07-SO1 for more
details.
FIPS integrity verification test failed.
FIPS integrity verification test failed.
================================================================================
=====

================================================================================
=====
 Starting Deactivation on Standby NOAMP server if present in topology.
================================================================================
=====

HPC07-NO1 is Active NOAMP Server. Proceeding with next NOAMP server in the
list.

================================================================================
=====
 Starting Deactivation on Active NOAMP server.
================================================================================
=====

Executing /usr/TKLC/dsr/prod/maint/loaders/deactivate/
load.DcaDeactivateAscoped script on HPC07-NO1

============= Start of Log Data in file /var/TKLC/log/
DcaDeactivateAscoped.log ===============

Server Name  : HPC07-NO1
Server Role  : NETWORK_OAMP
Node Id      : HPC07-NO1
HA State     : Active
Cluster Role : Primary
===================================
Remove Dca Application KPI groups
===================================
  === deleted 1 records ===
==========================================
Remove Dca Application Measurement groups
==========================================
  === deleted 1 records ===
=========================================================
Remove permission group headers for Dca Application
=========================================================
  === deleted 1 records ===
================================================
Remove logical to physical sbr db mapping from
```

```
DcaLog2PhySbr and DcaLogicalSbr table
================================================
================================================
Remove Dca from DcaLifecycleNoam table
================================================
  === deleted 0 records ===
================================================
Remove Dca from DcaAppNetworkUserOption table
================================================
  === deleted 3 records ===
================================================
Remove Dca from DcaTrialMp table
================================================
  === deleted 0 records ===
================================================
Remove Dca from DsrApplicationPerMp table
================================================
  === deleted 0 records ===
================================================
Remove Dca Application from DsrApplication table
================================================
  === deleted 1 records ===
  === deleted 1 records ===
  === deleted 1 records ===
====================================END=================================
===

Execution status of deactivation script on HPC07-NO1: PASSED
============================================================================
=====Execution of Dca Application Deactivation Script complete.
============================================================================
=====
=====================================E-N-
D=====================================
```

5. Log into an Active NOAM and SOAM GUI.
6. Verify that DCA Framework disappears as a menu item on the NOAM and SOAM.
7. Log out of the NOAM login shells using the `# exit` command and close the SSH connections.

Post Framework Deactivation

Deactivating the DCA Framework is not allowed as long at least one DCA application is activated in the network.

Following deactivation, the **DCA Framework** GUI folder disappears from the left hand menu.