Oracle® Communications

Diameter Signaling Router

DSR 8.3 Mediation Feature Activation Guide

Release 8.3

E93237-01

September 2018

Oracle Communications Diameter Signaling Router Mediation feature activation procedure.

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See more information on MOS in the Appendix section.

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1.0 INTRODUCTION

1.1 PURPOSE AND SCOPE

This document defines the procedure that is executed to activate the Mediation feature on DSR 7.3 (or beyond) network element (NE). This procedure may be run either 1) As part of a new DSR installation, after the standard installation is complete but before the NE is in service, or 2) on an in-service DSR NE, where the Mediation feature is activated during a planned maintenance window to minimize the impact to network traffic.

This document also provides a procedure to deactivate Mediation after it has been activated. Refer to Section 2.3 for a discussion of deactivation.

No additional software installation is required prior to executing this procedure. The standard DSR installation procedure has loaded all of the required software, even if the Mediation feature is activated at a later time.

1.2 ACRONYMS

Table 1. Acronyms

Acronyms	Expansion
BNS	Broadband Networking Solutions
CAPM	Computer-Aided Policy Making
DA-MP	Diameter Agent Message Processor
DB	Database
DSR	Diameter Signaling Router
FOA	First Office Application
GUI	Graphical User Interface
HA	High Availability
IMI	Internal Management Interface
IP	Internet Protocol
MP	Message Processing or Message Processor
NE	Network Element
NO	Network OAM
NOAM	Network OAM
OAM	Operations, Administration and Maintenance
SSH	Secure Shell
UI	User Interface
VIP	Virtual IP
VPN	Virtual Private Network
XMI	External Management Interface

1.3 GENERAL PROCEDURE STEP FORMAT

Figure 1. Example of a procedure step illustrates the general format of procedure steps as they appear in this document. Where it is necessary to explicitly identify the server on which a particular step is to be taken, the server name is given in the title box for the step (e.g. “ServerX” in Section 4.0).

Each step has a checkbox for every command within the step that the technician should check to keep track of the progress of the procedure.

The title box describes the operations to be performed during that step.

Each command that the technician is to enter is in **`10 point bold Courier`** *font.*

5 ☐	**ServerX:** Connect to the console of the server	Establish a connection to the server using cu on the terminal server/console. $ **cu –l /dev/ttyS7**

Figure 1. Example of a procedure step

2.0 FEATURE ACTIVATION OVERVIEW

This section lists the required materials and information needed to execute the feature activation. In addition, Table 3. Pre-Feature Activation Overview through Table 8. Post-Feature Deactivation Overview provides estimates of the time required to execute the procedure. These tables can be used to estimate the total time necessary to complete the feature activation. The timing values shown are estimates only – use these tables to plan the timing of the activation, **not** to execute the procedure. The detailed procedure steps to be executed begin in **Section 4.0.**

2.1 DEFINITION OF ACTIVATION FOR THE MEDIATION FEATURE

The precise meaning of *activation* varies from feature to feature. This section briefly defines what activation means with respect to the Mediation feature.

All software required to run Mediation is available by default as part of a DSR installation or upgrade. The process of activating the feature simply makes proper use of software elements and file system files that are already present, to change the behavior of the DSR NE.

Table 2. Behavior of Mediation based on Global_Admin_State and Meta_Adminiistrator_Privilege

Global_ Admin_ State	Meta_Administrator_ Privilege	Behavior
1	1	Mediation Folder will be shown under Diameter Menu. Mediation signaling code will be evaluating trigger points to see if Mediation Rules are to be applied to ingress messages. Rule Template Screen will be shown under Mediation Menu. Note: Meta_Administrator_Privilege cannot be enabled if Global_Admin_State is disabled.
1	0	Mediation Folder will be shown under Diameter Menu. Mediation signaling code will be evaluating trigger points to see if Mediation Rules are to be applied to ingress messages. Rule Template Screen will not be shown.
0	1	Mediation Folder will not be shown under Diameter Menu. Mediation signaling code will not be evaluating trigger points for ingress messages. Note: This case will not be allowed by mediation activation script. However this can be a scenario, when both Global-Admin and Meta-Admin are enabled through activation script but by deactivation script Global-Admin is disabled.
0	0	Mediation Folder will not be shown under Diameter Menu. Mediation signaling code will not be evaluating trigger points for ingress messages.

2.2 FEATURE ACTIVATION OVERVIEW

2.2.1 Pre-Feature Activation Overview

The pre-activation procedures shown in the following table may be executed outside a maintenance window if desired. Procedure completion times shown here are estimates. Times may vary due to differences in database size, network configuration and loading, user experience, and user preparation.

Table 3. Pre-Feature Activation Overview

Procedure	**Elapsed Time (Hours: Minutes)**		**Activity**	**Impact**
	This Step	**Cum.**	**Feature Activation Preparation**	
Required Material Check (Procedure *1*)	0:10-0:30	0:10-0:30	Step 1: Verify all required materials are present. Step 2: Verify all administration data needed during feature activation.	None
System Topology Check (Procedure 1)	0:10-0:30	0:20-1:00	Step 1: Verify Network Element Configuration data. Step 2: Verify System Group Configuration data.	None
Perform Health Check (Procedure 2)	0:01-0:05	0:21-1:05	Step 1: Verify DSR Release. Step 2: Verify Server status. Step 3: Log all current alarms.	None

2.2.2 Feature Activation Execution Overview

The procedures shown in the following table are executed inside a single maintenance window. Procedure completion times shown here are estimates. Times may vary due to differences in database size, network configuration and loading, user experience, and user preparation.

Table 4. Feature Activation Execution Overview

Procedure	**Elapsed Time (Hours: Minutes)**		**Activity**	Impact
	This Step	**Cum.**	**Feature Activation Execution**	
Perform Health Check (Procedure 3)	0:01-0:05	0:01-0:05	Step 1: Verify DSR Release. Step 2: Verify proper Mediation state. Step 3: Verify Server status. Step 4: Log all current alarms.	None
Feature Activation (Procedure 4)	0:10-0:30	0:11-0:35	Step 1: Log out of NOAM GUI. Step 2: SSH to Active NO. Step 3: Change to the feature activation directory. Step 4: Execute the feature activation script. • For enabling both Global-Admin/Meta-Admin, refer to Procedure 4 • For enabling Global-Admin, refer to Procedure 5 • For enabling Meta-Admin, refer to Procedure 6 Step 5: Log into Active SOAM GUI. Step 6: Verify the Mediation Folder. Step 7: Close SSH connections to both NOAMs	Mediation feature is activated on DSR

2.2.3 Post-Feature Activation Overview

The procedures shown in the following table are executed inside a maintenance window. Procedure completion times shown here are estimates. Times may vary due to differences in database size, network configuration and loading, user experience, and user preparation.

Table 5. Post-Feature Activation Overview

Procedure	Elapsed Time (Hours: Minutes)		Activity	Impact
	This Step	**Cum.**	**Feature Activation Completion**	
Perform Health Check (Procedure 7)	0:01-0:05	0:01-0:05	Step 1: Verify Server status. Step 2: Log all current alarms.	Mediation feature has been activated on DSR

2.3 FEATURE DEACTIVATION OVERVIEW

2.3.1 Pre-Feature Deactivation Overview

The procedures shown in the following table are executed inside a maintenance window. Deactivation procedure times are only estimates as the reason to execute a deactivation has a direct impact on any additional deactivation preparation that must be done. Times may vary due to differences in database size, network configuration and loading, user experience, and user preparation.

Table 6. Pre-Feature Deactivation Overview

Procedure	Elapsed Time (Hours or Minutes)		Activity	Impact
	This Step	**Cum.**	**Deactivation Procedures**	
Perform Health Check (Procedure 8)	0:01-0:05	0:01-0:05	Step1: Verify DSR Release. Step 2: Verify proper Mediation state. Step 3: Verify server status. Step 4: Log current alarms.	None.

2.3.2 Feature Deactivation Execution Overview

The procedures shown in the following table are executed inside a maintenance window. Deactivation procedure times are only estimates as the reason to execute a deactivation has a direct impact on any additional deactivation preparation that must be done. Times may vary due to differences in database size, network configuration and loading, user experience, and user preparation.

Table 7. Feature Deactivation Overview

Procedure	Elapsed Time (Hours or Minutes)		Activity	Impact
	This Step	**Cum.**	**Deactivation Procedures**	
Deactivation Setup	0:10-0:30	0:10-0:30	The reason to deactivate has a direct impact on any additional backout preparation that must be done. Since all possible reasons cannot be predicted ahead of time, only estimates are given here. Execution time will vary.	None.

Procedure	Elapsed Time (Hours or Minutes)		Activity	Impact
	This Step	Cum.	Deactivation Procedures	
Deactivation (Procedure 9)	00:10 - 00:20	0:20-0:50	Step 1: Log out of Active NOAM GUI. Step 2: SSH into active NO. Step 3: Change directory. Step 4: Execute the feature deactivation script. • For disabling both Global-Admin/Meta-Admin, refer to Procedure 10 • For disabling Global-Admin, refer to Procedure 10 • For disabling Meta-Admin, refer to Procedure 11 Step 5: Log into Active SOAM GUI. Step 6: Verify the Mediation folder. Step 7: Close SSH connections to both NOAMs	Mediation feature is deactivated on DSR.

2.3.3 Post-Feature Deactivation Overview

The procedures shown in the following table are executed inside a maintenance window. Deactivation procedure times are only estimates as the reason to execute a deactivation has a direct impact on any additional deactivation preparation that must be done. Times may vary due to differences in database size, network configuration and loading, user experience, and user preparation.

Table 8. Post-Feature Deactivation Overview

Procedure	Elapsed Time (Hours or Minutes)		Activity	Impact
	This Step	Cum.	Deactivation Procedures	
Perform Health Check (Procedure 12)	0:01-0:05	0:01-0:05	Step 1: Verify Server status. Step 2: Log all current alarms.	None.

3.0 FEATURE ACTIVATION PREPARATION

Initially, there is a primary – if not singular – planned use case for Mediation feature activation. It is expected that Oracle personnel following this Feature Activation Procedure document will activate the Mediation feature on a customer's DSR NE, define one or more Rule Templates as required for that customer, and then deactivate the Meta-Administrator privilege. Once Oracle personnel define the Rule Templates, customer personnel then use the Rule Set Administrator interface to define the specific Rules that govern mediation actions taken by the DSR.

This section provides detailed procedures to prepare a system for Mediation feature activation. These procedures are executed outside a maintenance window.

3.1 SYSTEM TOPOLOGY CHECK

This procedure is part of feature activation preparation and is used to verify the system topology of the DSR network and servers.

Procedure 1: System Topology Check

STEP #	Procedure	Description
This procedure verifies System Topology. Check off (√) each step as it is completed. Boxes have been provided for this purpose under each step number. Should THIS PROCEDURE FAIL, Contact My Oracle Support (MOS) and ask for assistance.		
1 ☐	Verify Network Element Configuration data	View the Network Elements configuration data; verify the data; save and print report: 1. Log into the NOAM VIP GUI. 2. Select **Main Menu >Configuration > Networking> Network to** view Network Elements Configuration screen. 3. Click **Report** at the bottom of the table to generate a report for all entries. 4. Verify the configuration data is correct for your network. 5. Save the report and/or print the report. Keep these copies for future reference.
2 ☐	Verify Server Group Configuration data	View the Server Group configuration data; verify the data; save and print report: 1. Select **Main Menu > Configuration > Server Group** to view Server Group screen. 2. Click **Report** at the bottom of the table to generate a report for all entries. 3. Verify the configuration data is correct for your network. 4. Save the report and/or print the report. Keep these copies for future reference.

3.2 PERFORM HEALTH CHECK

This procedure is part of feature activation preparation and is used to determine the health and status of the DSR network and servers. This may be executed multiple times but must also be executed at least once within the time frame of 24-36 hours prior to the start of the maintenance window in which the feature activation will take place.

Procedure 2: Perform Health Check (Feature Activation Preparation)

STEP #	Procedure	Description
This procedure performs a Health Check. Check off (√) each step as it is completed. Boxes have been provided for this purpose under each step number. Should THIS PROCEDURE FAIL, Contact My Oracle Support (MOS) and ask for assistance.		
1 ☐	Verify Server status	Verify Server status: 1. Select **Status & Manage > Server;** the Server Maintenance screen is shown. 2. Verify all Server Status is Normal (Norm) for Replication (Repl), Collection (Coll), Database (DB), High Availability (HA), and Processes (Proc). 3. Do not proceed to feature activation if any of the following statuses is not **Norm: Repl, Coll, DB, HA, Proc**. If any of these are not Norm, corrective action should be taken to restore the non-Norm status to Norm before proceeding with the feature activation. Contact Engineering for assistance as necessary. 4. If the Alarm (Alm) status is not Norm but only Minor alarms are present, it is acceptable to proceed with the feature activation. If there are Major or Critical alarms present, these alarms should be analyzed prior to proceeding with the feature activation. The activation may be able to proceed in the presence of certain Major or Critical alarms. Contact My Oracle Support (MOS) if nessesary.
2 ☐	Log all current alarms	Log all current alarms in the system: 1. Select **Alarms & Events > View Active;** the Alarms & Events > View Active screen is shown. 2. Click **Report** button to generate an Alarms report. 3. Save the report and print the report. Keep these copies for future reference. 4. Select **Alarms & Events > View History** and repeat steps 2 and 3.

4.0 FEATURE ACTIVATION

Before feature activation, perform the system health check in Section 3.2. This check ensures that the system is ready for feature activation. Performing the system health check determines which alarms are present in the system and if feature activation can proceed with alarms.

****** WARNING *******

If there are servers in the system which are not in Normal state, these servers should be brought to the Normal or the Application Disabled state before the feature activation process is started.

If alarms are present on the server, contact **My Oracle Support (MOS)** to diagnose those alarms and determine whether they need to be addressed or if it is safe to proceed with the feature activation.

Read the following notes on feature activation procedures:

I. Where possible, command response outputs are shown as accurately as possible. EXCEPTIONS are as follows:
   - Session banner information such as ***time*** and ***date***.
   - System-specific configuration information such as ***hardware locations***, ***IP addresses*** and ***hostnames.***
   - ANY information marked with "***XXXX***" or "*YYYY.*" Where appropriate, instructions are provided to determine what output should be expected in place of "***XXXX* or *YYYY***"
   - Aesthetic differences unrelated to functionality such as ***browser attributes: window size***, ***colors***, ***toolbars*** and ***button layouts***.

II. After completing each step and at each point where data is recorded from the screen, the technician performing the feature activation must initial each step. A check box should be provided. For procedures which are executed multiple times, the check box can be skipped, but the technician must initial each iteration the step is executed. The space on either side of the step number can be used (margin on left side or column on right side).

III. Captured data is required for future support reference.

4.1 PRE-ACTIVATION PROCEDURES

4.1.1 Perform Health Check

This procedure is used to determine the health and status of the network and servers. This must be executed at the start of every maintenance window.

Note: The Health Check procedure below is the same as the Health Check procedure described in Section 3.2 when preparing for feature activation, but it is repeated here to emphasize that it is being re-executed if Section 3.2 was performed outside the maintenance window.

Procedure 3: Perform Health Check (Pre-Feature Activation)

STEP #	Procedure	Description
This procedure performs a Health Check. Check off (√) each step as it is completed. Boxes have been provided for this purpose under each step number. Should THIS PROCEDURE FAIL, Contact My Oracle Support (MOS) and ask for assistance.		
1 ☐	Verify that Mediation feature is not activated	Verify that **Mediation** folder doesn't exist under **Diameter menu on NOAM / SOAM (3-Tiered)**
2 ☐	Verify Server status	Verify Server Status: 1. Select **Status & Manage > Server;** the Server Maintenance screen is shown. 2. Verify all Server Status is Normal (Norm) for Replication (Repl), Collection (Coll), Database (DB), High Availability (HA), and Processes (Proc). 3. Do not proceed to feature activation if any of the following statuses is not **Norm: Repl, Coll, DB, HA, Proc**. If any of these are not Norm, corrective action should be taken to restore the non-Norm status to Norm before proceeding with the feature activation. Contact Engineering for assistance as necessary. 4. If the Alarm (Alm) status is not Norm but only Minor alarms are present, it is acceptable to proceed with the feature activation. If there are Major or Critical alarms present, these alarms should be analyzed prior to proceeding with the feature activation. The activation may be able to proceed in the presence of certain Major or Critical alarms. Contact Engineering for assistance as necessary.
3 ☐	Log all current alarms	Log all current alarms in the system: 1. Select **Alarms & Events > View Active;** the Alarms & Events > View Active screen is shown. 2. Click **Report** button to generate an Alarms report. 3. Save the report and/or print the report. Keep these copies for future reference. 4. Select **Alarms & Events > View History** and repeat steps 2 and 3.

4.2 ACTIVATION PROCEDURES

This section provides the detailed procedure steps of the feature activation execution. These procedures are executed inside a maintenance window.

4.2.1 *Feature Activation (Global-Admin/Meta-Admin)*

Detailed steps are given in the procedure below.

Procedure 4: Feature Activation

STEP #	Procedure	Description
This procedure verifies that the feature activation steps have been completed. Check off (√) each step as it is completed. Boxes have been provided for this purpose under each step number. Should THIS PROCEDURE FAIL, Contact My Oracle Support (MOS) and ask for assistance.		
1 ☐	Log out of NOAM GUI	Log out of any active NOAM GUI sessions.
2 ☐	SSH to Active NOAM	Use your SSH client to connect to the server as admusr: **# ssh <active NOAM XMI IP Address>**
3 ☐	Change to the feature activation directory	Change to the feature activation directory: **# cd /usr/TKLC/dsr/prod/maint/loaders/**
4 ☐	Execute the feature activation script	1. Execute the feature activation script: **# ./featureActivateDeactivate** 1. Choose "**Activate**", "**Mediation**" and "**Global Admin** and **Meta Admin**" options. 2. For 3-Tiered Architecture, you can activate this feature on all SOAMs or on a specific SOAM. 3. Verify that the screen output is similar to : ========== Mediation Activation Output ========== === changed 1 records === Global-Admin-State successfully enabled. === changed 1 records === Mediation Meta-Administrator successfully activated.
5 ☐	Log into Active SOAM GUI	Log into the Active SOAM GUI.

STEP #	Procedure	Description
6 ☐	Verify the Mediation Folder	Verify that Mediation Folder appears with **Rule Templates** menu item. 1. Verify that **Mediation** folder appears under Diameter Menu. 2. Verify that the **Rule Templates** menu item is now present under Mediation folder.
7 ☐	Close SSH connection to Active NOAMs	Log out of the NOAM login shells and close the SSH connections. 1. Log out of the Active OAM login shell: **# exit** 2. Close the SSH connection

4.2.2 *Feature Activation (Global-Admin)*

Detailed steps are given in the procedure below.

Procedure 5: Feature Activation (Global-Admin)

STEP #	Procedure	Description
This procedure verifies that the global admin has been enabled.. Check off (√) each step as it is completed. Boxes have been provided for this purpose under each step number. Should THIS PROCEDURE FAIL, Contact My Oracle Support (MOS) and ask for assistance.		
1 ☐	Log out of NOAM GUI	Log out of any active NOAM GUI sessions.
2 ☐	SSH to Active NOAM	Use your SSH client to connect to the server as admusr: **# ssh <active NOAM XMI IP Address>**
4 ☐	Change to the feature activation directory	Change to the feature activation directory: **# cd /usr/TKLC/dsr/prod/maint/loaders/**
5 ☐	Execute the feature activation script	1. Execute the feature activation script: **# ./featureActivateDeactivate** **2.** Choose "**Activate**", "**Mediation**" and "**Global Admin**" options. **3.** For 3-Tiered Architecture, you can activate this feature on all SOAMs or on a specific SOAM. **4.** Verify that the screen output is similar to : ========== Mediation Activation Output ========== === changed 1 records === Global-Admin-State successfully enabled.

STEP #	Procedure	Description
6 ☐	Log into Active SOAM GUI	Log into the Active SOAM GUI.
7 ☐	Verify the Mediation Folder	Verify that Mediation Folder appears with **Rule Templates** menu item. 1. Verify that **Mediation** folder appears under Diameter Menu without **Rule Template** menu.
8 ☐	Close SSH connection to Active NOAMs	Log out of the NOAM login shells and close the SSH connections. 1. Log out of the Active OAM login shell: **# exit** 2. Close the SSH connection

4.2.3 *Feature Activation (Meta-Admin)*

Detailed steps are given in the procedure below.

Procedure 6: Feature Activation (Meta-Admin)

STEP #	Procedure	Description
This procedure verifies that the global admin has been enabled. Check off (√) each step as it is completed. Boxes have been provided for this purpose under each step number. Should THIS PROCEDURE FAIL, Contact My Oracle Support (MOS) and ask for assistance.		
1 ☐	Log out of NOAM GUI	Log out of any active NOAM GUI sessions.
2 ☐	SSH to Active NOAM	Use your SSH client to connect to the server as admusr: **# ssh <active NOAM XMI IP Address>**
4 ☐	Change to the feature activation directory	Change to the feature activation directory: **# cd /usr/TKLC/dsr/prod/maint/loaders/**

STEP #	Procedure	Description
5 ☐	Execute the feature activation script	1. Execute the feature activation script: **# ./featureActivateDeactivate** 2. Choose "**Activate**", "**Mediation**" and "**Meta Admin**" options. 3. For 3-Tiered Architecture, you can activate this feature on all SOAMs or on a specific SOAM. 4. Verify that the screen output is similar to : ========== Mediation Activation Output ========== === changed 1 records === Mediation Meta-Administrator successfully activated. Note: • Meta-Admin cannot be enabled, if Global-Admin is disabled.
6 ☐	Log into Active SOAM GUI	Log into the Active SOAM GUI.
7 ☐	Verify the Mediation Folder	Verify that Rule template menu item shows up in Mediation Folder: 1. Open the **Diameter>Mediation** folder. 2. Verify that the **Rule Templates** menu item is now present.
8 ☐	Close SSH connection to Active NOAMs	Log out of the NOAM login shells and close the SSH connections. 1. Log out of the Active OAM login shell: **# exit** 2. Close the SSH connection

4.3 POST-ACTIVATION PROCEDURES

4.3.1 Perform Health Check

This procedure is used to determine the health and status of the DSR network and servers.

Procedure 7 : Perform Health Check (Post-Feature Activation)

STEP #	Procedure	Description
This procedure verifies that the global admin has been enabled. Check off (√) each step as it is completed. Boxes have been provided for this purpose under each step number. Should THIS PROCEDURE FAIL, Contact My Oracle Support (MOS) and ask for assistance.		

STEP #	Procedure	Description
1 ☐	Verify Server Status	Verify Server Status: 1. Select **Status & Manage > Server;** the Server Maintenance screen displays. 2. Verify all Server Status is Normal (Norm) for Replication (Repl), Collection (Coll), Database (DB), High Availability (HA), and Processes (Proc).
2 ☐	Log all current alarms	Log all current alarms in the system: 1. Select **Alarms & Events > View Active;** the Alarms & Events > View Active screen displays. 2. Click **Report** button to generate an Alarms report. 3. Save the report and print the report. Keep these copies for future reference. 4. Select **Alarms & Events > View History** and repeat steps 2 and 3. 5. Compare the logged alarms with those logged from before the feature activation. If there are any new alarms present, those new alarms should be analyzed to verify they did not result from a problem with the feature activation. Contact my Oracle Support (MOS) if necessary.

5.0 FEATURE DEACTIVATION

Initially, there is a primary – if not singular – planned use case for Mediation feature activation. It is expected that Oracle personnel following this Feature Activation Procedure document will activate the Mediation feature on a customer's DSR NE, define one or more Rule Templates as required for that customer, and then deactivate the Meta-Administrator privilege. Once Oracle personnel define the Rule Templates, customer personnel then use the Rule Set Administrator interface to define the specific Rules that govern mediation actions taken by the DSR.

This use case requires that there be a Mediation deactivation procedure with different privilege, which is defined in the following sections.

5.1 PRE-DEACTIVATION PROCEDURES

Before beginning the feature deactivation, complete the Pre-Deactivation procedure below.

5.1.1 Perform Health Check

This procedure is used to determine the health and status of the DSR network and servers.

Procedure 8 : Perform Health Check (Pre-Feature Deactivation)

STEP #	Procedure	Description
This procedure verifies that the global admin has been enabled. Check off (√) each step as it is completed. Boxes have been provided for this purpose under each step number. Should THIS PROCEDURE FAIL, Contact My Oracle Support (MOS) and ask for assistance.		

1 ☐	Verify proper Mediation feature state	Verify the proper initial state of Mediation: 1. Open the **Diameter>Mediation** folder, if Global Admin is activated. 2. Verify that the menu item **Rule Templates** is present, if Meta Admin is activated. There is no need to complete this deactivation procedure, • If user trying to deactivate meta admin, if Rule Templates menu item is not found. • If user trying to deactivate global admin, if Mediation folder is not found.
2 ☐	Verify Server status	Verify Server Status: 1. Select **Status & Manage > Server;** the Server Maintenance screen is shown. 2. Verify all Server Status is Normal (Norm) for Replication (Repl), Collection (Coll), Database (DB), High Availability (HA), and Processes (Proc). 3. Do not proceed to feature deactivation if any of the following statuses is not **Norm: Repl, Coll, DB, HA, Proc**. If any of these are not Norm, corrective action should be taken to restore the non-Norm status to Norm before proceeding with the feature deactivation. Contact Engineering for assistance as necessary. 4. If the Alarm (Alm) status is not Norm but only Minor alarms are present, it is acceptable to proceed with the feature deactivation. If there are Major or Critical alarms present, these alarms should be analyzed prior to proceeding with the feature deactivation. The deactivation may be able to proceed in the presence of certain Major or Critical alarms. Contact Engineering for assistance as necessary.
3 ☐	Log all current alarms	Log all current alarms in the system: 1. Select **Alarms & Events > View Active;** the Alarms & Events > View Active screen is shown. 2. Click **Report** button to generate an Alarms report. 3. Save the report and/or print the report. Keep these copies for future reference. 4. Select **Alarms & Events > View History** and repeat steps 2 and 3.

5.2 DEACTIVATION PROCEDURES

5.2.1 Feature Deactivation (Global-Admin/Meta-Admin)

Detailed steps are given in the procedure below.

Procedure 9 : Feature Deactivation (Global-Admin/Meta-Admin)

STEP #	Procedure	Description
This procedure verifies that the global admin has been enabled. Check off (√) each step as it is completed. Boxes have been provided for this purpose under each step number.		

STEP #	Procedure	Description
Should THIS PROCEDURE FAIL, Contact My Oracle Support (MOS) and ask for assistance.		
1	Log out of NOAM GUI	Log out of any active NOAM GUI sessions.
2 ☐	SSH to Active NOAM	Use your SSH client to connect to the server as admusr **# ssh <active NO XMI IP Address>**
3 ☐	Change directory	Change to the feature deactivation directory: **# cd /usr/TKLC/dsr/prod/maint/loaders/**
4 ☐	Execute the feature deactivation script	1. Execute the feature activation script: **# ./featureActivateDeactivate** 2. Choose "**Deactivate**", "**Mediation**" and "**Global Admin** and **Meta Admin**" options. 3. For 3-Tiered Architecture, you can deactivate this feature on all SOAMs or on a specific SOAM. 4. Verify that the screen output is similar to : ========== Mediation Deactivation Output ========== === changed 1 records === Mediation Meta-Administrator successfully deactivated. === changed 1 records === Global-Admin-State successfully disabled.
5 ☐	Log into Active SOAM GUI	Log into the Active SOAM GUI.
6 ☐	Verify the Mediation Folder	Verify that Mediation Folder disappears. 1. Verify that **Mediation** folder disappears under Diameter Menu.
7 ☐	Close SSH connection to both NOAMs	Log out of the NOAM login shell and close the SSH connection. 1. Log out of the Active OAM login shell: **# exit** 2. Close the SSH connection (consult your software client's documentation if necessary).

5.2.2 *Feature Deactivation (Global-Admin)*

Detailed steps are given in the procedure below

Procedure 10 : Feature Deactivation (Global-Admin)

STEP #	Procedure	Description
This procedure verifies that the global admin has been enabled. Check off (√) each step as it is completed. Boxes have been provided for this purpose under each step number. Should THIS PROCEDURE FAIL, Contact My Oracle Support (MOS) and ask for assistance.		

STEP #	Procedure	Description
1 ☐	Log out of NOAM GUI	Log out of any active NOAM GUI sessions.
2 ☐	SSH to Active NOAM	Use your SSH client to connect to the server as admusr **# ssh <active NO XMI IP Address>**
3 ☐	Change directory	Change to the feature deactivation directory: **# cd /usr/TKLC/dsr/prod/maint/loaders/**
4 ☐	Execute the feature deactivation script	1. Execute the feature activation script: **# ./featureActivateDeactivate** 2. Choose "**Deactivate**", "**Mediation**" and "**Global Admin**" options. 3. For 3-Tiered Architecture, you can deactivate this feature on all SOAMs or on a specific SOAM. 4. Verify that the screen output is similar to : ========== Mediation Deactivation Output ========== === changed 1 records === Global-Admin-State successfully disabled.
5 ☐	Log into Active SOAM GUI	Log into the Active SOAM GUI.
6 ☐	Verify the Mediation Folder	Verify that Mediation Folder disappears. 1. Verify that **Mediation** folder disappears under Diameter Menu.
7 ☐	Close SSH connection to both NOAMs	Log out of the NOAM login shell and close the SSH connection. 1. Log out of the Active OAM login shell: **# exit** 2. Close the SSH connection (consult your software client's documentation if necessary).

5.2.3 Feature Deactivation (Meta-Admin)

Detailed steps are given in the procedure below.

Procedure 11 : Feature Deactivation (Meta-Admin)

STEP #	Procedure	Description
This procedure verifies that the global admin has been enabled. Check off (√) each step as it is completed. Boxes have been provided for this purpose under each step number. Should THIS PROCEDURE FAIL, Contact My Oracle Support (MOS) and ask for assistance.		

STEP #	Procedure	Description
1 ☐	Log out of NOAM GUI	Log out of any active NOAM GUI sessions.
2 ☐	SSH to Active NOAM	Use your SSH client to connect to the server as admusr **# ssh <active NO XMI IP Address>**
3 ☐	Change directory	Change to the feature deactivation directory: **# cd /usr/TKLC/dsr/prod/maint/loaders/**
4 ☐	Execute the feature deactivation script	1. Execute the feature activation script: **# ./featureActivateDeactivate** 2. Choose "**Deactivate**", "**Mediation**" and "**Meta Admin**" options. 3. For 3-Tiered Architecture, you can deactivate this feature on all SOAMs or on a specific SOAM. 4. Verify that the screen output is similar to : ========== Mediation Deactivation Output ========== === changed 1 records === Mediation Meta-Administrator successfully deactivated.
5 ☐	Log into Active SOAM GUI	Log into the Active SOAM GUI.
6 ☐	Verify the Rule Template menu item in Mediation Folder	Verify that Rule template menu item shows up in Mediation Folder: 1. Open the **Diameter>Mediation** folder. 2. Verify that the **Rule Templates** menu item is no longer present.
7 ☐	Close SSH connection to both NOAMs	Log out of the NOAM login shell and close the SSH connection. 1. Log out of the Active OAM login shell: **# exit** 2. Close the SSH connection (consult your software client's documentation if necessary).

5.3 POST-DEACTIVATION PROCEDURES

To complete a deactivation, complete the Post-Deactivation procedure below.

5.3.1 Perform Health Check

This procedure is used to determine the health and status of the DSR network and servers.

Procedure 12 : Perform Health Check (Post-Feature Deactivation)

STEP #	Procedure	Description
This procedure verifies that the global admin has been enabled. Check off (√) each step as it is completed. Boxes have been provided for this purpose under each step number. Should THIS PROCEDURE FAIL, Contact My Oracle Support (MOS) and ask for assistance.		
1 ☐	Verify Server status	Verify Server Status: 1. Log into the NOAM VIP GUI. 2. Select **Status & Manage > Server;** the Server Maintenance screen is shown. 3. Verify all Server Status is Normal (Norm) for Replication (Repl), Collection (Coll), Database (DB), High Availability (HA), and Processes (Proc).
2 ☐	Log all current alarms	Log all current alarms in the system: 1. Select **Alarms & Events > View Active;** the Alarms & Events > View Active view displays. 2. Click **Report** button to generate an Alarms report. 3. Save the report and print the report. Keep these copies for future reference. 4. Select **Alarms & Events > View History** and repeat steps 2 and 3. 5. Compare the logged alarms with those logged from before the feature activation. If there are any new alarms present, those new alarms should be analyzed to verify they did not result from a problem with the feature activation. Contact Engineering as necessary.

6.0 ENGINEERING NOTES

FIPS integrity verification test failed: In DSR 7.1+, you may see 'FIPs integrity verification test failed' message displayed during the activation/Deactivation output, this message is expected and harmless.

6.1 SAMPLE OUTPUT OF ACTIVATION (ACTIVE NOAM)

```
Run script to activate Mediation feature:


[admusr@RDU03NO-Server loaders]$ ./featureActivateDeactivate
Wed Nov  8 01:07:03 EST 2017::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 : 3
If you want to activate mediation then provide the option that you want to enable:
1.Global Admin
2.Meta Admin
3.Global Admin & Meta_Admin

Enter your choice : 3

Run script to Activate mediation Feature

============================S-T-A-R-T====================================


================================================================================
===
Execution of Activation/Deactivation Process Starts
================================================================================
===
Starting Activation/Deactivation process....
Executing /usr/TKLC/dsr/prod/maint/loaders/activate/load.mediationActivateAsourced script on RDU03NO-
Server
================================
Add CAPM KPI group to table
KPIVisibility
```

```
==================================
==================================
Add CAPM Measurement groups to
table MeasVisibility
==================================
================================================================================
===
There is no Standby NOAMP server configured in the Topology
================================================================================
===
================================================================================
===
The Active SO server configured in the Topology are
================================================================================
===
1. RDU03SO-Server
2. ALL SOs

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

================================================================================
===
This is a 3 Tier Setup , So run the B sourced loaders on SO server : RDU03SO-Server
Executing /usr/TKLC/dsr/prod/maint/loaders/activate/load.mediationActivateBsourced script
with both Global_Admin_State and Meta_Administrator_Privilege for mediation on RDU03SO-Server
FIPS integrity verification test failed.
==============================================
Mediation Activation Output
==============================================
  === changed 1 records ===
==============================================
Global-Admin-State successfully enabled.
==============================================
  === changed 1 records ===
=====================================================
Mediation Meta-Administrator successfully activated.
=====================================================
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
================================================================================
===
================================================================================
===
[admusr@RDU03NO-Server loaders]$
```

6.2 SAMPLE OUTPUT OF DEACTIVATION (ACTIVE NOAM)

```
[admusr@RDU03NO-Server loaders]$ ./featureActivateDeactivate
Wed Nov  8 01:06:15 EST 2017::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 : 3
If you want to deactivate mediation then provide the Input Flag :
1.Global Admin
2.Meta Admin
3.Global Admin & Meta Admin

Enter your choice : 3

Run script to Deactivate mediation Feature

=====================================S-T-A-R-
T====================================


==============================================================================
===
Execution of Activation/Deactivation Process Starts
==============================================================================
===
Starting Activation/Deactivation process....
==============================================================================
===
The Active SO server configured in the Topology are
==============================================================================
===
1. RDU03SO-Server
2. ALL SOs

Enter your choice on which SO you want to Activate or Deactivate the Feature :2
Verifying feature is activated or not on RDU03SO-Server
FIPS integrity verification test failed.
==============================================================================
==
```

```
MEDIATION is activated on RDU03SO-Server with Global and Meta Admin Privileges
================================================================================
==
Executing /usr/TKLC/dsr/prod/maint/loaders/deactivate/load.mediationDeactivateAsourced script on
RDU03NO-Server
================================
Removing CAPM KPI group from
table KPIVisibility
================================
  === deleted 1 records ===
================================
Removing CAPM Measurement Groups
from table MeasVisibility
================================
  === deleted 1 records ===
================================================================================
===
There is no Mate NOAMP server configured in the Topology
================================================================================
===
Activate/Deactivate mediation on all SOs configured in the Topology

================================================================================
===
This is a 3 Tier Setup , So run the B sourced loaders on SO server : RDU03SO-Server
Executing /usr/TKLC/dsr/prod/maint/loaders/deactivate/load.mediationDeactivateBsourced script
with both Global_Admin_State and Meta_Administrator_Privilege for mediation on RDU03SO-Server
FIPS integrity verification test failed.
============================================
Mediation Deactivation Output
============================================
  === changed 1 records ===
=======================================================
Mediation Meta-Administrator successfully deactivated.
=========================================================
  === changed 1 records ===
==========================================
Global-Admin-State successfully disabled.
==========================================
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
================================================================================
===
==========================================

Do you want to activate/deactivate this feature on another System OAM Server[Y/N] : n
```

Appendix A. 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, there are multiple layers of menus selections. Make the selections in the sequence shown below on the Support telephone menu:

[1] For the first set of menu options, select 2, “New Service Request”. You will hear another set of menu options.

[2] In this set of menu options, select 3, “Hardware, Networking and Solaris Operating System Support”. A third set of menu options begins.

[3] In the third set of options, select 2, “Non-technical issue”. Then 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.

Appendix B. Emergency Response

In the event of a critical service situation, emergency response is offered by the 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.

Appendix C. Locate Product Documentation on the Oracle Help Center

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 appears. Most products covered by these documentation sets will appear under the headings “Network Session Delivery and Control Infrastructure” or “Platforms.”
4. Click on your Product and then the Release Number. A list of the entire documentation set for the selected product and release appears.

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.