

Oracle® Communications

Diameter Signaling Router

DSR GLA Feature Activation Procedure

Release 8.2

E88979 Revision 01

January 2018

ORACLE®

Oracle Communications Diameter Signaling Router GLA Feature Activation Procedure, Release 8.2.

Copyright © 2010, 2018 Oracle and/or its affiliates. All rights reserved.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.



CAUTION: Use only the Upgrade procedure included in the Upgrade Kit.

Before upgrading any system, please access My Oracle Support (MOS) (<https://support.oracle.com>) and review any Technical Service Bulletins (TSBs) that relate to this upgrade.

My Oracle Support (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>.

See more information on My Oracle Support (MOS).

Table of Contents

1. Introduction.....	5
1.1 References	5
1.2 Acronyms.....	5
1.3 Terminology.....	6
1.4 General Procedure Step Format	6
1.5 Release Document Matrix	7
2. Feature Activation Overview	7
2.1 Definition of Activation for the GLA Feature	7
2.2 Pre-Feature Activation Overview.....	8
2.3 Feature Activation Execution Overview.....	8
2.4 Post-Feature Activation Overview	9
3. Feature Deactivation Overview	10
3.1 Pre-Feature Deactivation Overview	10
3.2 Feature Deactivation Execution Overview	10
3.3 Post-Feature Deactivation Overview.....	11
4. Feature Activation Preparation	12
4.1 System Topology Check	12
4.2 Perform Health Check	14
5. Feature Activation	16
5.1 Pre-Activation Procedures.....	16
5.1.1 Perform Health Check.....	16
5.2 Activation Procedures	20
5.2.1 Feature Activation	20
5.3 Post-Activation Procedures	26
5.3.1 Perform Health Check.....	26
6. Feature Deactivation	30
6.1 Pre-Deactivation Procedures	30
6.1.1 Perform Health Check.....	30
6.2 Deactivation Procedures	33
6.2.1 Feature Deactivation	33
6.3 Post-Deactivation Procedures.....	39
6.3.1 Perform Health Check.....	39
7. Engineering Notes	42
7.1 Sample Output of Activation (Active NOAM).....	42
7.2 Sample Output of Deactivation (Active NOAM)	48

Appendix A. My Oracle Support (MOS)	50
--	-----------

List of Tables

Table 1. Acronyms	5
Table 2. Terminology	6
Table 3. PCA Activation\Configuration Procedure Reference Table	7
Table 4. Pre-Feature Activation Overview	8
Table 5. Feature Activation Execution Overview	8
Table 6. Post-Feature Activation Overview	9
Table 7. Pre-Feature Deactivation Overview	10
Table 8. Feature Deactivation Overview	10
Table 9. Post-Feature Deactivation Overview	11

List of Figures

Figure 1. Example of a Procedure Step	6
---------------------------------------	---

List of Procedures

Procedure 1. System Topology Check	12
Procedure 2. Perform Health Check (Feature Activation Preparation)	14
Procedure 3. Perform Health Check (Pre Feature Activation)	17
Procedure 4. Feature Activation	20
Procedure 5. Perform Health Check (Post-Feature Activation)	26
Procedure 6. Perform Health Check (Pre-Feature Deactivation)	30
Procedure 7. Feature Deactivate	33
Procedure 8. Perform Health Check (Post-Feature Deactivation)	39

1. Introduction

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

This document also provides a procedure to deactivate GLA after it has been activated. Refer to section 3 for a discussion of deactivation.

Configuration of GLA following successful activation is beyond the scope of this document. After successful activation, the crafts person is expected to configure GLA in that order for proper operation of GLA.

No additional software installation is required before executing this procedure. The standard DSR installation procedure has loaded all of the required software, even if the GLA feature is activated later.

1.1 References

- [1] DSR 8.2 Software Installation and Configuration Procedure 2/2
- [2] Policy and Charging Application User's Guide
- [3] DSR 8.2 Policy and Charging DRA Feature Activation Procedure

1.2 Acronyms

An alphabetized list of acronyms used in the document.

Table 1. Acronyms

Acronym	Definition
BNS	Broadband Networking Solutions
DA-MP	Diameter Agent Message Processor
DB	Database
DP	Data Processor
DSR	Diameter Signaling Router
GLA	Gateway Location Application
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
NOAM	Network Operations and Maintenance
OAM	Operations, Administration and Maintenance
SDS	Subscriber Database Server

Acronym	Definition
SOAM	System Operations and Maintenance
SSH	Secure Shell
UI	User Interface
VIP	Virtual IP
VPN	Virtual Private Network
XMI	External Management Interface

1.3 Terminology

Table 2. Terminology

Term	Definition
Communication Agent	An EXG common infrastructure component delivered as part of a common plug-in that uses the COMCOL MX framework in support of communicating Stack Events between EXG application processes on different servers.
ComAgent	Same as Communication Agent
PSBR-B	Holds network-wide subscriber binding information. Maps subscriber keys to the PCRF that hosts the subscriber's policy rules.
PSBR-S	Holds session information that is used for routing in-session messages.

1.4 General Procedure Step Format

Where it is necessary to identify the server explicitly 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 Figure 1. Example of a Procedure Step).

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. <div style="border: 1px solid black; padding: 2px; width: fit-content;"> \$ cu -l /dev/ttyS7 </div>
---	--	--

Figure 1. Example of a Procedure Step

1.5 Release Document Matrix

Table 3. PCA Activation\Configuration Procedure Reference Table

DSR Release	Reference
DSR 8.2	[2] and [3]

2. Feature Activation Overview

This section lists the required materials and information needed to execute the feature activation. In addition, Table 4 through Table 9 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 to be executed begin in section 5.

2.1 Definition of Activation for the GLA Feature

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

The main components of a GLA system include the GLA (DSR) application, the binding database (hosted by the Policy Subscriber Binding Repository, (pSBR)), and the ComAgent, which provide an interface and means to enable the GLA MPs and the pSBR MPs communicating to each other via reliable ComAgent routing services. Subscriber data concerning binding and session information is populated in the pSBR-B by the Policy Diameter Routing Agent (Policy DRA).

PDRA/PCA DSR application requires configuration of pSBR-Binding and pSBR-Session servers, and ComAgent connections to these pSBR servers. GLA relies on the configuration and ComAgent connectivity, provided by PDRA. PDRA/PCA must be pre-activated and pre-configured for GLA to be activated. Refer to Table 4. Pre-Feature Activation Overview for the appropriate DSR PCA release feature activation and configuration reference.

All software required to run GLA 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 already present to change the behavior of the DSR NE.

Before GLA feature activation, there are no GLA menu items visible on the SOAM GUI or NOAM GUI and there is no GLA-related processing taking place on the DA-MP(s).

After feature activation, all selectable GLA menu items are present on the SOAM GUI or NOAM GUI, allowing full GLA configuration and provisioning. Specifically, for GLA application, the top-level GLA folder is visible on the Main Menu, and a new entry is added to the **Diameter -> Maintenance -> Applications** table, showing GLA and its state.

After activation:

The DA-MP(s) are prepared to act on GLA and ComAgent configuration and provisioning information entered at and replication from the NOAM (in case of ComAgent configuration/ provisioning) and SOAM (in case of GLA configuration/ provisioning).

Important: Once the GLA feature is activated, it is not automatically enabled. Activation simply means the mechanism for provisioning GLA behavior is in place. But the DA-MP(s) will act on GLA provisioning information only after GLA has been enabled (via the **Diameter -> Maintenance -> Applications** screen). GLA should not be enabled until after the appropriate provisioning data has been entered. GLA provisioning is beyond the scope of this document. Furthermore, for proper operation of GLA, Communication Agent and GLA application assumes that the remote server IP addresses corresponding to the ComAgent HA service (for Binding Resource) are routable/reachable. However, these networking setup/concerns are beyond the scope of the activation procedure.

2.2 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 4. Pre-Feature Activation Overview

Procedure	Elapsed Time (Hours:Minutes)		Feature Activation Preparation Procedures	Impact
	This Step	Cum.		
System Topology Check (Procedure 1)	0:00-0:20	0:00-0:20	<ul style="list-style-type: none"> Verify Network Element Configuration data Verify System Group Configuration data Analyze and plan DA-MP restart sequence 	None
Perform Health Check (Procedure 2)	0:01-0:05	0:01-0:25	<ul style="list-style-type: none"> Verify DSR release Verify server status Log all current alarms 	None

2.3 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 5. Feature Activation Execution Overview

Procedure	Elapsed Time (Hours:Minutes)		Feature Activation Execution Procedures	Impact
	This Step	Cum.		
Perform Health Check (Procedure 3)	0:01-0:05	0:01-0:05	<ul style="list-style-type: none"> Verify DSR release Verify proper GLA feature state Verify proper PDRA feature state Verify server status. Verify server and server group configurations Log all current alarms 	None

Procedure	Elapsed Time (Hours:Minutes)		Feature Activation Execution Procedures	Impact
	This Step	Cum.		
Feature Activation (Procedure 4)	0:10-0:20	0.10-0:25	<ul style="list-style-type: none"> • Log out of NOAM/SOAM GUI • SSH to Active NOAM • Login as admusr • Change directory to /usr/TKLC/dsr/prod/maint/loaders/ • Execute the feature activation script • Log into NOAM or SOAM GUI • Verify the GLA folder • Restart each active DA-MP server • Verify Maintenance screen • Log into NOAM GUI • Verify Maintenance screen • Close SSH connections to NOAM 	GLA is activated

2.4 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 6. Post-Feature Activation Overview

Procedure	Elapsed Time (Hours:Minutes)		Feature Activation Completion Procedures	Impact
	This Step	Cum.		
Perform Health Check (Procedure 5)	0:01-0:05	0:01-0:05	<ul style="list-style-type: none"> • Establish GUI session on the SOAM VIP • Verify server status • Log all current alarms • Verify the KPIs • Verify the Measurements 	GLA has been activated on DSR

3. Feature Deactivation Overview

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 7. Pre-Feature Deactivation Overview

Procedure	Elapsed Time (Hours:Minutes)		Deactivation Preparation Procedures	Impact
	This Step	Cum.		
Perform Health Check (Procedure 6)	0:01-0:05	0:01-0:05	<ul style="list-style-type: none"> Verify DSR release. Verify proper GLA feature state Verify server status Log current alarms 	None

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 8. Feature Deactivation Overview

Procedure	Elapsed Time (Hours:Minutes)		Deactivation Procedures	Impact
	This Step	Cum.		
Deactivation (Procedure 7)	0:10-0:20	0:20-0:50	<ul style="list-style-type: none"> Log out of active NOAM/SOAM GUI SSH into active NOAM Login as admusr Change directory to /usr/TKLC/dsr/prod/maint/loaders/.. Execute the feature deactivation script Log into NOAM or SOAM GUI Verify the GLA folder Restart each active DA-MP server Log into NOAM GUI Verify Maintenance screen 	GLA is deactivated

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 9. Post-Feature Deactivation Overview

Procedure	Elapsed Time (Hours:Minutes)		Post Deactivation Procedures	Impact
	This Step	Cum.		
Perform Health Check (Procedure 8)	0:01-0:05	0:01-0:05	<ul style="list-style-type: none"> • Verify server status • Log all current alarms • Verify the KPIs • Verify the Measurements • Verify GUI menu does not shows GLA sub-menu 	None


4. Feature Activation Preparation

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

4.1 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

S T E P #	<p>This procedure verifies system topology.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>If this procedure fails, contact My Oracle Support (MOS) and ask for assistance.</p>
1. <input type="checkbox"/>	<p>NOAM VIP GUI: Login</p> <p>Establish a GUI session on the NOAM server by using the VIP address of the NOAM server. Open the web browser and enter a URL of:</p> <div data-bbox="492 835 1347 890" style="border: 1px solid black; padding: 5px; margin: 10px 0;"> http://<Primary_NOAM_VIP_IP_Address> </div> <p>Login as the guiadmin user:</p> <div data-bbox="492 961 1364 1579" style="text-align: center;">  </div>

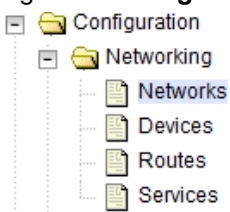
Procedure 1. System Topology Check

2.

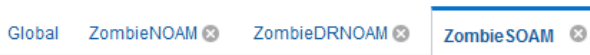
NOAM VIP GUI:

Verify network configuration data

Navigate to **Configuration -> Networking -> Networks**.




Select the site network element tab.




Network Name	Network Type	Default	Locked
XMI	OAM	Yes	Yes
IMI	OAM	No	Yes
xsi1	Signaling	No	No
xsi2	Signaling	No	No
xsi3	Signaling	No	No

Click **Report**.



Verify the configuration data is correct for your network.

Save or Print this report to keep copies for future reference.

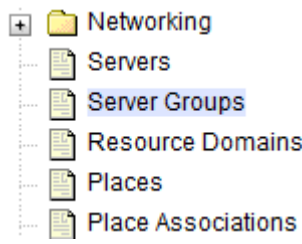


3.

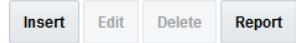
NOAM VIP GUI:

Verify server configuration

Navigate to **Configuration -> Server Groups**.

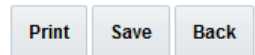


Click **Report**.



Verify the configuration data is correct for your network.

Save or Print this report to keep copies for future reference.




Procedure 1. System Topology Check

4. <input type="checkbox"/>	Analyze and plan DA-MP restart sequence	<ul style="list-style-type: none"> Analyze system topology and plan for any DA-MPs, which will be out-of-service during the feature activation sequence. Analyze system topology gathered in steps 2 and 3. Determine the exact sequence of which DA-MP servers will be restarted (with the expected out-of-service periods). <p>Note: It is recommended that no more than 50% of the MPs be restarted at once.</p>
--------------------------------	---	---

4.2 Perform Health Check

This procedure is part of feature activation preparation and determines the health and status of the DSR release network and servers. This may be executed multiple times, but must also be executed at least once 24-36 hours before the start of the maintenance window in which the feature activation is to take place.

Procedure 2. Perform Health Check (Feature Activation Preparation)

S	This procedure performs needed health checks.	
T	Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.	
E		
P	If this procedure fails, contact My Oracle Support (MOS) and ask for assistance.	
#		
1. <input type="checkbox"/>	NOAM VIP GUI: Login	<p>Establish a GUI session on the NOAM server by using the VIP address of the NOAM server. Open the web browser and enter a URL of:</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> http://<Primary_NOAM_VIP_IP_Address> </div> <p>Login as the <i>guiadmin</i> user:</p> 

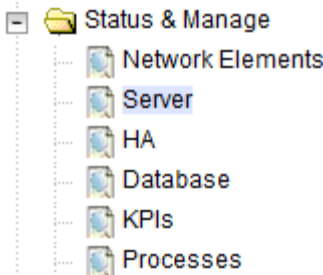
Procedure 2. Perform Health Check (Feature Activation Preparation)

2.

NOAM VIP GUI:

Verify server status

Navigate to **Status & Manage -> Server**.



Verify all Server Status is **Normal (Norm)** for Alarm (Alm), Database (DB), Replication Status, and Processes (Proc).

Appl State	Alm	DB	Reporting Status	Proc
Enabled	<u>Norm</u>	Norm	Norm	<u>Norm</u>
Enabled	<u>Norm</u>	Norm	Norm	Norm
Enabled	Norm	<u>Norm</u>	Norm	Norm
Enabled	Norm	Norm	Norm	<u>Norm</u>

Do not proceed to feature activation if any of the above states are not Norm. 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.

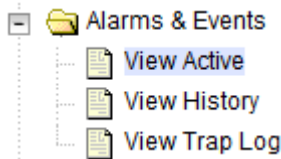
If the Alarm (Alm) status is not Norm but only Minor alarms are present, it is acceptable to proceed with the feature activation. If there are Major or Critical alarms present, these alarms should be analyzed prior to proceeding with the feature activation. The activation may be able to proceed in the presence of certain Major or Critical alarms. Contact My Oracle Support (MOS) for assistance as necessary.

3.

NOAM VIP GUI:

Log current alarms

Navigate to **Alarms & Events -> View Active**.



Click **Report**.

Export

Report

Clear Selections

Save or Print this report to keep copies for future reference.

Print

Save

Back

5. Feature Activation

Before feature activation, perform the system health check in section 4.2. This check ensures 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:

- 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.
- 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 checkbox must 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).
- Captured data is required for future support reference.


5.1 Pre-Activation Procedures

5.1.1 Perform Health Check

This procedure determines the health and status of the network and servers. This must be executed at the start of every maintenance window.

Note: The following Health Check procedure is the same as the Health Check procedure described in section 4.2 when preparing for feature activation, but it is repeated here to emphasize that it is being re-executed if section 4.2 was performed outside the maintenance window.

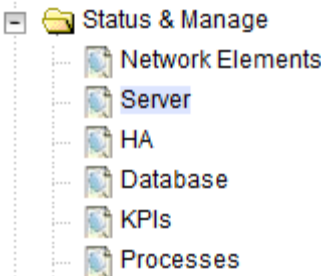
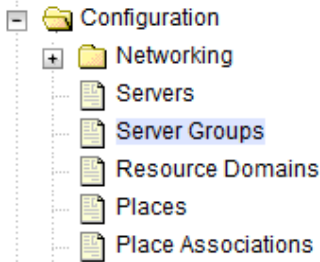
Procedure 3. Perform Health Check (Pre Feature Activation)

S T E P #	<p>This procedure performs needed health checks.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>If this procedure fails, contact My Oracle Support (MOS) and ask for assistance.</p>
<p>1. <input type="checkbox"/></p>	<p>SOAM VIP GUI: Login</p> <p>Establish a GUI session on the SOAM server by using the VIP address of the SOAM server. Open the web browser and enter a URL of:</p> <div data-bbox="492 514 1346 569" style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>http://<Primary_SOAM_VIP_IP_Address></p> </div> <p>Login as the guiadmin user:</p> <div data-bbox="492 590 1365 1430" style="border: 1px solid black; padding: 10px; margin: 10px 0;">  </div>
<p>2. <input type="checkbox"/></p>	<p>NOAM VIP GUI: Verify GLA folder is not present</p> <p>Under Main Menu, verify the GLA folder is NOT present.</p>

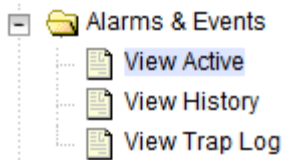
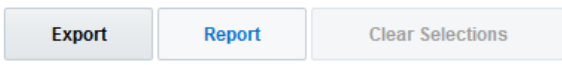

Procedure 3. Perform Health Check (Pre Feature Activation)

<div>3.</div> <div><input type="checkbox"/></div>	<div>NOAM VIP GUI:</div> <div>Login</div>	<div>Establish a GUI session on the NOAM server by using the VIP address of the NOAM server. Open the web browser and enter a URL of:</div> <div><div>http://<Primary_NOAM_VIP_IP_Address></div></div> <div>Login as the <i>guiadmin</i> user:</div> <div><div><div><div>ORACLE®</div><div>Oracle System Login</div><div><div><div>Log In</div><div>Enter your username and password to log in</div><div><div>Username: <input type="text"/></div><div>Password: <input type="password"/></div><div><input type="checkbox"/> Change password</div><div>Log In</div></div></div></div></div><div>Mon Jul 11 13:59:37 2016 EDT</div></div><div>Welcome to the Oracle System Login.</div><div>This application 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.</div><div>Unauthorized access is prohibited.</div><div><div>Oracle and Java are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.</div><div>Copyright © 2010, 2016, Oracle and/or its affiliates. All rights reserved.</div></div></div>
---	---	---

Procedure 3. Perform Health Check (Pre Feature Activation)

<div>4.</div> <div><input type="checkbox"/></div>	<div>NOAM VIP GUI:</div> <div>Verify server status</div>	<div>Navigate to Status & Manage -> Server.</div> <div></div> <div>Verify all Server Status is Normal (Norm) for Alarm (Alm), Database (DB), Replication Status, and Processes (Proc).</div> <div><table><tr><th>Appl State</th><th>Alm</th><th>DB</th><th>Reporting Status</th><th>Proc</th></tr><tr><td>Enabled</td><td><u>Norm</u></td><td>Norm</td><td>Norm</td><td><u>Norm</u></td></tr><tr><td>Enabled</td><td><u>Norm</u></td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>Enabled</td><td>Norm</td><td><u>Norm</u></td><td>Norm</td><td>Norm</td></tr><tr><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td><u>Norm</u></td></tr></table></div> <div>Do not proceed to feature activation if any of the above states are not Norm. 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.</div> <div>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) for assistance as necessary.</div>	Appl State	Alm	DB	Reporting Status	Proc	Enabled	<u>Norm</u>	Norm	Norm	<u>Norm</u>	Enabled	<u>Norm</u>	Norm	Norm	Norm	Enabled	Norm	<u>Norm</u>	Norm	Norm	Enabled	Norm	Norm	Norm	<u>Norm</u>
Appl State	Alm	DB	Reporting Status	Proc																							
Enabled	<u>Norm</u>	Norm	Norm	<u>Norm</u>																							
Enabled	<u>Norm</u>	Norm	Norm	Norm																							
Enabled	Norm	<u>Norm</u>	Norm	Norm																							
Enabled	Norm	Norm	Norm	<u>Norm</u>																							
<div>5.</div> <div><input type="checkbox"/></div>	<div>NOAM VIP GUI:</div> <div>Verify server configuration</div>	<div>Navigate to Configuration -> Server Groups.</div> <div></div> <div>Verify the configuration data is correct for your network.</div>																									

Procedure 3. Perform Health Check (Pre Feature Activation)

6. <input type="checkbox"/>	NOAM VIP GUI: Log current alarms	<p>Navigate to Alarms & Events -> View Active.</p>  <p>Click Report.</p>  <p>Save or Print this report to keep copies for future reference.</p> 
--------------------------------	--	--

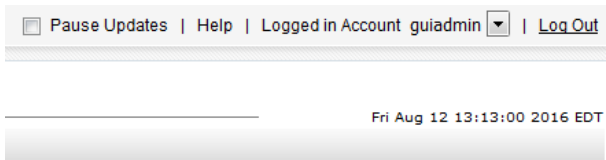
5.2 Activation Procedures

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

5.2.1 Feature Activation

Detailed steps for GLA feature activation are provided in this procedure.

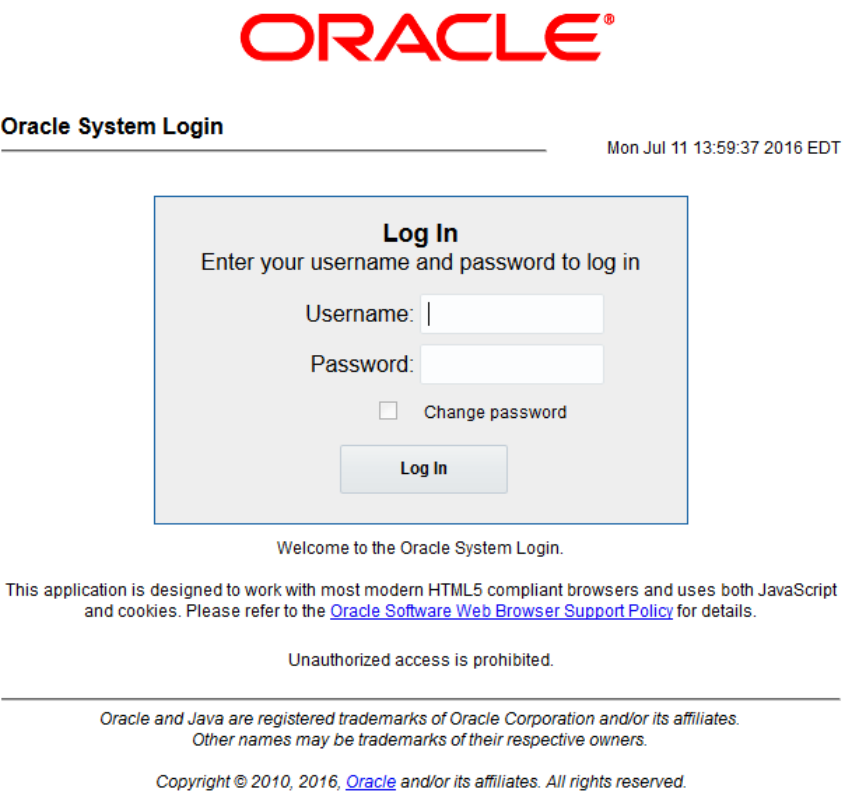
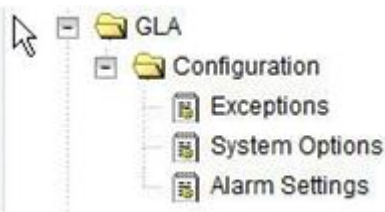
Procedure 4. Feature Activation

S	This procedure activates GLA.	
T	Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.	
E		
P	If this procedure fails, contact My Oracle Support (MOS) and ask for assistance.	
#		
1. <input type="checkbox"/>	NOAM/SOAM VIP GUI: Logout	<p>Logout of any active NOAM and/or SOAM GUI sessions:</p> 
2. <input type="checkbox"/>	NOAM VIP: Establish an SSH session to active NOAM	<p>Login as admusr.</p> <pre>\$ ssh <active NOAM XMI IP address></pre>
3. <input type="checkbox"/>	NOAM VIP: Navigate to the feature activation directory	<p>Navigate to the feature activation directory by executing the following command:</p> <pre>\$ cd /usr/TKLC/dsr/prod/maint/loaders/</pre>


Procedure 4. Feature Activation

<p>4.</p> <p><input type="checkbox"/></p>	<p>NOAM VIP: Execute the feature activation script</p>	<p>Run the feature activation script by executing the following command:</p> <pre>\$./featureActivateDeactivate</pre> <p>Select Activate.</p> <pre>You want to Activate or Deactivate the Feature : 1.Activate 2.Deactivate Enter your choice : █</pre> <p>Select GLA.</p> <pre>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</pre> <p>Select the SOAM site for which the application will be activated:</p> <p>Note: As an alternative, you can also activate on all SOAM sites:</p> <pre>The Active SO server configured in the Topology are ===== 1. Jetta-SO-2 2. ALL SOs Enter your choice on which SO you want to Activate or Deactivate the Feature : █</pre> <p>Refer to Section 7.1 for output example.</p>
---	---	---

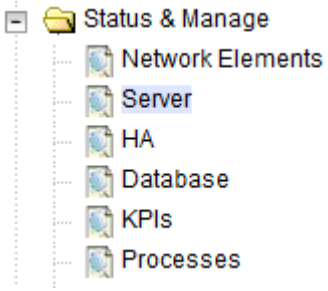
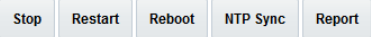
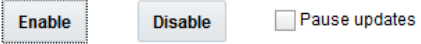
Procedure 4. Feature Activation

5. <input type="checkbox"/>	Active SOAM GUI: Login	<p>Establish a GUI session on the active SOAM server by using IP address of the SOAM server. Open the web browser and enter a URL of:</p> <div style="border: 1px solid black; padding: 2px; margin: 5px 0;"> http://<Active_SOAM_IP_Address> </div> <p>Login as the guiadmin user:</p> 
6. <input type="checkbox"/>	Active SOAM GUI: Verify the GLA folder is visible	<p>Locate and verify the GLA folder from Main Menu is visible and the configuration folder items are present.</p> 

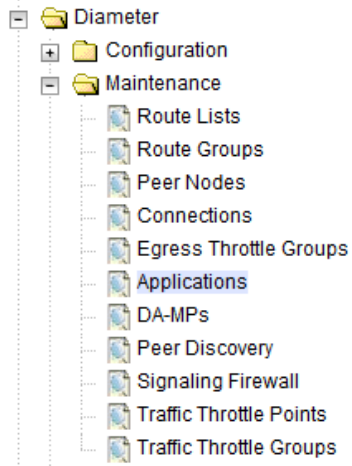
Procedure 4. Feature Activation

7. <input type="checkbox"/>	Active SOAM GUI: Verify application maintenance screen is visible	<p>Verify the GLA application is present in the Application Status screen. Navigate to Diameter -> Maintenance -> Applications.</p> <table><tr><td>RBAR</td><td>ZombieDAM P1</td><td>Disabled</td><td>Unk</td><td>Unk</td><td>Unk</td><td>Unk</td></tr><tr><td>RBAR</td><td>ZombieDAM P2</td><td>Disabled</td><td>Unk</td><td>Unk</td><td>Unk</td><td>Unk</td></tr></table> <p>Verify GLA status is uninitialized. The following data should be displayed: Admin State = Disabled Operational Status = Unk Operational Reason =Unk Congestion Level = Unk</p>	RBAR	ZombieDAM P1	Disabled	Unk	Unk	Unk	Unk	RBAR	ZombieDAM P2	Disabled	Unk	Unk	Unk	Unk
RBAR	ZombieDAM P1	Disabled	Unk	Unk	Unk	Unk										
RBAR	ZombieDAM P2	Disabled	Unk	Unk	Unk	Unk										
8. <input type="checkbox"/>	Standby SOAM GUI: Repeat verification steps	<p>Repeat steps 5-7 for the standby SOAM.</p> <p>For DSR 5.1, 6.0, and 7.0, run the following command to activate GLA on each spare SOAM:</p> <p>Note: For DSR 7.1 or later, skip this step.</p> <pre>\$ cd /usr/TKLC/dsr/prod/maint/loaders/activate \$./load.glaActivateBsourced</pre>														
9. <input type="checkbox"/>	SOAM VIP GUI: Login	<p>Establish a GUI session on the SOAM server by using the VIP address of the SOAM server. Open the web browser and enter a URL of:</p> <div><pre>http://<Primary_SOAM_VIP_IP_Address></pre></div> <p>Login as the guiadmin user:</p> <div></div>														

Procedure 4. Feature Activation

10. <input type="checkbox"/>	SOAM VIP GUI: Restart DA-MPs	<p>Multiple iterations of this step may be executed during the feature activation procedure. This is dependent on the number of DA-MP servers within your system. Make a written record of the number of times the step was performed. It is recommended that no more than 50% of the DA-MPs be restarted at once.</p> <p>Navigate to Status & Manage -> Server.</p>  <p>Select the desired DA-MPs, press Ctrl to select multiple DA-MPs at once.</p> <p>Click Restart.</p>  <p>Click OK to confirm.</p> <p>Verify the server changes to the Err state and wait until it returns to the Enabled/Norm state.</p> <p>Repeat for the additional DA-MPs.</p>
11. <input type="checkbox"/>	Active SOAM GUI: Enable application	<p>Navigate to Diameter -> Maintenance -> Applications.</p> <p>Select the DA-MP servers where GLA is present. Press Ctrl to select multiple servers at once.</p> <p>Click Enable.</p>  <p>Click OK.</p>

Procedure 4. Feature Activation

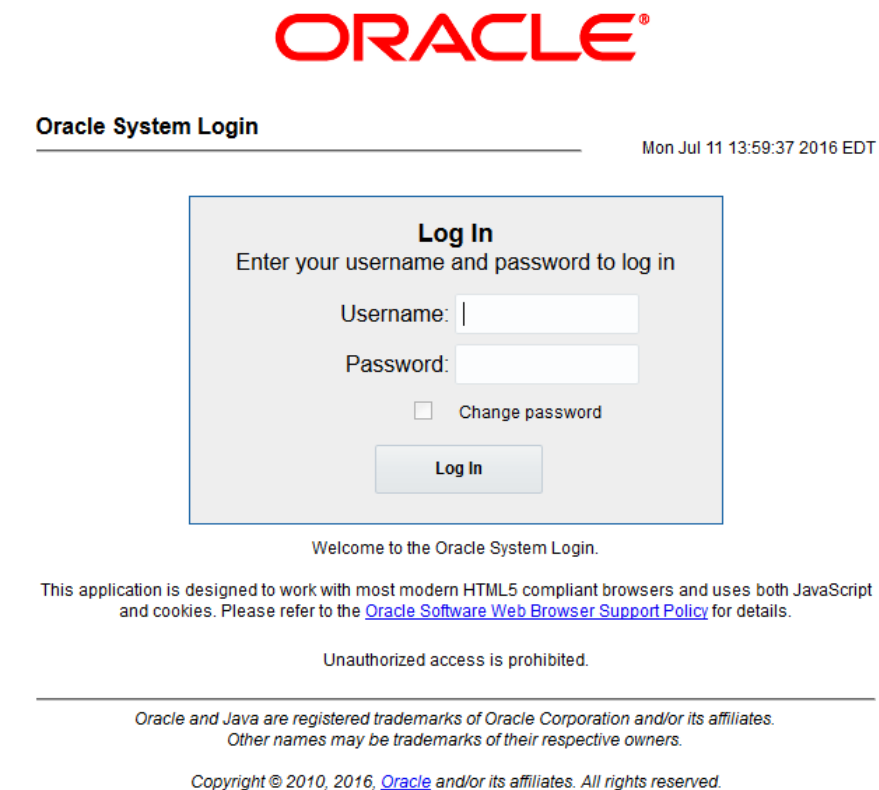
12. <input type="checkbox"/>	Active SOAM GUI: Verify application maintenance screen is visible	<p>Navigate to Diameter -> Maintenance -> Applications.</p>  <p>The screenshot shows a tree view under 'Diameter'. The 'Maintenance' folder is expanded, showing a list of sub-items: Route Lists, Route Groups, Peer Nodes, Connections, Egress Throttle Groups, Applications (highlighted in blue), DA-MPs, Peer Discovery, Signaling Firewall, Traffic Throttle Points, and Traffic Throttle Groups.</p> <p>Verify GLA status is initialized. The following data should display:</p> <p>Admin State = Enabled Operational Status = Available Operational Reason = Normal Congestion Level = Normal</p>
---------------------------------	--	---

5.3 Post-Activation Procedures

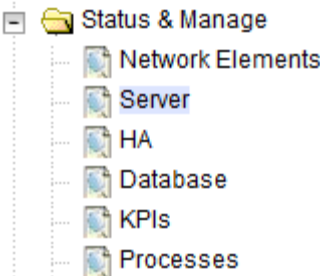
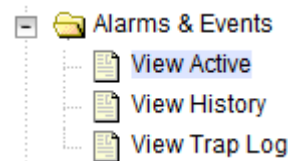
5.3.1 Perform Health Check

This procedure determines the health and status of the DSR release network and servers.

Procedure 5. Perform Health Check (Post-Feature Activation)

S T E P #	<p>This procedure performs a post activation health check.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>If this procedure fails, contact My Oracle Support (MOS) and ask for assistance.</p>
1. <input type="checkbox"/>	<p>NOAM VIP GUI:</p> <p>Login</p> <p>Establish a GUI session on the NOAM server by using the VIP address of the NOAM server. Open the web browser and enter a URL of:</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> http://<Primary_NOAM_VIP_IP_Address> </div> <p>Login as the guiadmin user:</p>  <p>Welcome to the Oracle System Login.</p> <p>This application 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.</p> <p>Unauthorized access is prohibited.</p> <p>Oracle and Java are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.</p> <p>Copyright © 2010, 2016, Oracle and/or its affiliates. All rights reserved.</p>

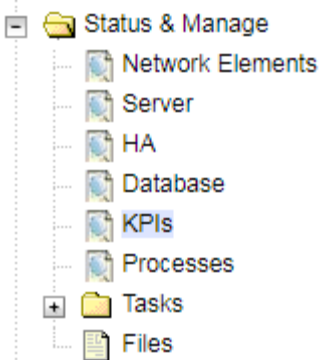
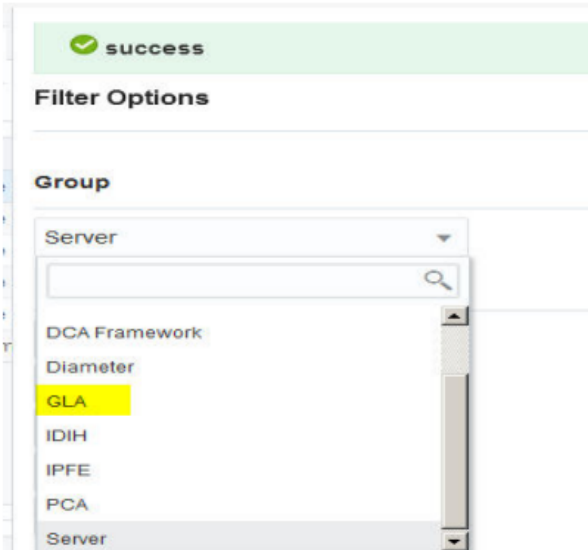
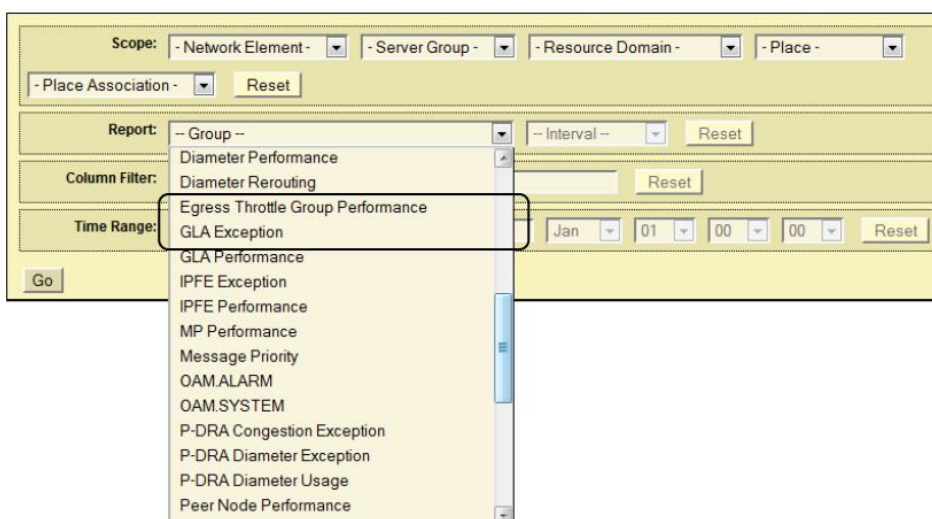
Procedure 5. Perform Health Check (Post-Feature Activation)

<div>2.</div> <div><input type="checkbox"/></div>	<div>NOAM VIP GUI:</div> <div>Verify server status</div>	<div>Navigate to Status & Manage -> Server.</div> <div></div> <div>Verify all Server Status is Normal (Norm) for: Alarm (Alm), Database (DB), Replication Status, and Processes (Proc).</div> <div><table><tr><th>Appl State</th><th>Alm</th><th>DB</th><th>Reporting Status</th><th>Proc</th></tr><tr><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr></table></div>	Appl State	Alm	DB	Reporting Status	Proc	Enabled	Norm	Norm	Norm	Norm	Enabled	Norm	Norm	Norm	Norm	Enabled	Norm	Norm	Norm	Norm	Enabled	Norm	Norm	Norm	Norm
Appl State	Alm	DB	Reporting Status	Proc																							
Enabled	Norm	Norm	Norm	Norm																							
Enabled	Norm	Norm	Norm	Norm																							
Enabled	Norm	Norm	Norm	Norm																							
Enabled	Norm	Norm	Norm	Norm																							
<div>3.</div> <div><input type="checkbox"/></div>	<div>NOAM VIP GUI:</div> <div>Log current alarms</div>	<div>Navigate to Alarms & Events -> View Active.</div> <div></div> <div>Click Report.</div> <div><div><div>Export</div><div>Report</div><div>Clear Selections</div></div></div> <div>Save or Print this report to keep copies for future reference.</div> <div><div><div>Print</div><div>Save</div><div>Back</div></div></div> <div>Compare this alarm report with those gathered in the pre-activation procedures. Contact My Oracle Support (MOS) if needed.</div>																									

Procedure 5. Perform Health Check (Post-Feature Activation)

<div>4.</div> <div><input type="checkbox"/></div>	<div>SOAM VIP GUI:</div> <div>Login</div>	<div>Establish a GUI session on the NOAM server by using the VIP address of the NOAM server. Open the web browser and enter a URL of:</div> <div><div>http://<Primary_NOAM_VIP_IP_Address></div></div> <div>Login as the <i>guiadmin</i> user:</div> <div><div><div>ORACLE®</div><div>Oracle System Login</div><div>Mon Jul 11 13:59:37 2016 EDT</div><div><div><div>Log In</div><div>Enter your username and password to log in</div><div><div>Username: <input type="text"/></div><div>Password: <input type="password"/></div><div><input type="checkbox"/> Change password</div><div>Log In</div></div></div><div>Welcome to the Oracle System Login.</div><div>This application 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.</div><div>Unauthorized access is prohibited.</div><div><div>Oracle and Java are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.</div><div>Copyright © 2010, 2016, Oracle and/or its affiliates. All rights reserved.</div></div></div></div></div>
---	---	--

Procedure 5. Perform Health Check (Post-Feature Activation)

<p>5.</p> <p><input type="checkbox"/></p>	<p>SOAM VIP GUI: Verify GLA KPI screen</p>	<p>Navigate to Status & Manage -> KPIs and click the Filter icon.</p>  <p>Verify GLA is present in Filter Group.</p> 
<p>6.</p> <p><input type="checkbox"/></p>	<p>SOAM VIP GUI: Verify GLA measurement group</p>	<p>Navigate to Measurements -> Report and verify GLA measurement groups are displayed in the Report Group options.</p> 

6. Feature Deactivation

Execute this section only if there is a problem and it is desired to revert back to the pre-activation version of the software. In general, as long as there are no Application Routing Rules using the GLA application, it will have no impact on the system and does not need to be deactivated. The deactivation procedure will cause all the GLA related configuration data (including the Application Routing Rules using GLA) to be removed.


6.1 Pre-Deactivation Procedures

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



6.1.1 Perform Health Check

This procedure determines the health and status of the DSR network and servers.

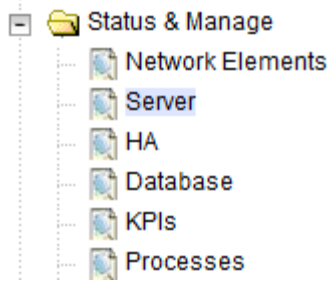
Procedure 6. Perform Health Check (Pre-Feature Deactivation)

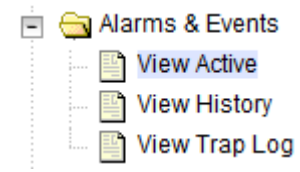
S T E P #	<p>This procedure performs a health check.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>If this procedure fails, contact My Oracle Support (MOS) and ask for assistance.</p>	
1. <input type="checkbox"/>	SOAM VIP GUI: Login	<p>Establish a GUI session on the SOAM server by using the VIP address of the SOAM server. Open the web browser and enter a URL of:</p> <div data-bbox="492 974 1346 1031" style="border: 1px solid black; padding: 5px; margin: 10px 0;"> http://<Primary_SOAM_VIP_IP_Address> </div> <p>Login as the <i>guiadmin</i> user:</p> <div data-bbox="492 1108 1365 1766" style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <div style="text-align: center;">  </div> <div style="text-align: center;"> Oracle System Login </div> <div style="text-align: right;"> Mon Jul 11 13:59:37 2016 EDT </div> <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <div style="text-align: center;"> Log In </div> <p style="text-align: center;">Enter your username and password to log in</p> <p>Username: <input style="width: 100%;" type="text"/></p> <p>Password: <input style="width: 100%;" type="password"/></p> <p style="text-align: center;"> <input type="checkbox"/> Change password </p> <p style="text-align: center;"> <input type="button" value="Log In"/> </p> </div> <p style="text-align: center;">Welcome to the Oracle System Login.</p> <p style="text-align: center;">This application 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.</p> <p style="text-align: center;">Unauthorized access is prohibited.</p> </div>

Procedure 6. Perform Health Check (Pre-Feature Deactivation)

2. <input type="checkbox"/>	SOAM VIP GUI: Verify the GLA folder is visible	<p>Locate and verify the GLA folder from Main Menu is visible and the configuration folder items are present</p>  <p>Note: It should only be present after feature activation, so if it is not present, then the feature is already deactivated and there is no need to complete this deactivation procedure.</p>
3. <input type="checkbox"/>	NOAM VIP GUI: Login	<p>Establish a GUI session on the NOAM server by using the VIP address of the NOAM server. Open the web browser and enter a URL of:</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> http://<Primary_NOAM_VIP_IP_Address> </div> <p>Login as the guiadmin user:</p>  <p>Welcome to the Oracle System Login.</p> <p>This application 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.</p> <p>Unauthorized access is prohibited.</p> <hr/> <p><small>Oracle and Java are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.</small></p> <p><small>Copyright © 2010, 2016, Oracle and/or its affiliates. All rights reserved.</small></p>

Procedure 6. Perform Health Check (Pre-Feature Deactivation)

<div>4.</div> <div></div>	NOAM VIP GUI: Verify server status	<p>Navigate to Status & Manage -> Server.</p>  <p>Verify all Server Status is Normal (Norm) for: Alarm (Alm), Database (DB), Replication Status, and Processes (Proc).</p> <table border="1"> <thead> <tr> <th>Appl State</th><th>Alm</th><th>DB</th><th>Reporting Status</th><th>Proc</th></tr> </thead> <tbody> <tr> <td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr> <tr> <td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr> <tr> <td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr> <tr> <td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr> </tbody> </table>	Appl State	Alm	DB	Reporting Status	Proc	Enabled	Norm	Norm	Norm	Norm	Enabled	Norm	Norm	Norm	Norm	Enabled	Norm	Norm	Norm	Norm	Enabled	Norm	Norm	Norm	Norm
Appl State	Alm	DB	Reporting Status	Proc																							
Enabled	Norm	Norm	Norm	Norm																							
Enabled	Norm	Norm	Norm	Norm																							
Enabled	Norm	Norm	Norm	Norm																							
Enabled	Norm	Norm	Norm	Norm																							


<div>5.</div> <div></div>	NOAM VIP GUI: Log current alarms	<p>Navigate to Alarms & Events -> View Active.</p>  <p>Click Report.</p> <div> <div>Export</div> <div>Report</div> <div>Clear Selections</div> </div> <p>Save or Print this report to keep copies for future reference.</p> <div> <div>Print</div> <div>Save</div> <div>Back</div> </div> <p>Compare this alarm report with those gathered in the pre-activation procedures. Contact My Oracle Support (MOS) if needed.</p>
---------------------------	--	--

6.2 Deactivation Procedures

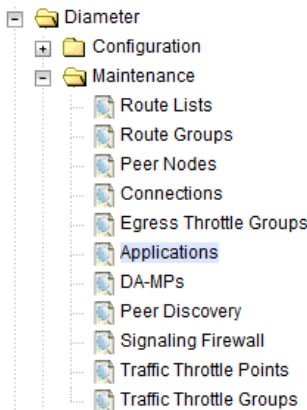
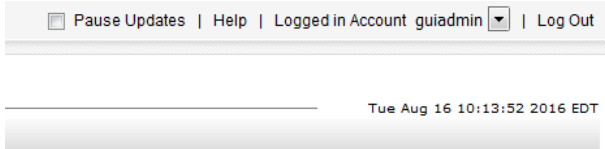
6.2.1 Feature Deactivation

This section provides the detailed steps of the GLA de-activation procedures.

Procedure 7. Feature Deactivate

S T E P #	<p>This procedure deactivates GLA.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>If this procedure fails, contact My Oracle Support (MOS) and ask for assistance.</p>
1. <input type="checkbox"/>	<p>SOAM VIP GUI: Login</p> <p>Establish a GUI session on the SOAM server by using the VIP address of the SOAM server. Open the web browser and enter a URL of:</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <code>http://<Primary_SOAM_VIP_IP_Address></code> </div> <p>Login as the guiadmin user:</p>  <p>Welcome to the Oracle System Login.</p> <p>This application 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.</p> <p>Unauthorized access is prohibited.</p> <p>Oracle and Java are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.</p> <p>Copyright © 2010, 2016, Oracle and/or its affiliates. All rights reserved.</p>


Procedure 7. Feature Deactivate

2. <input type="checkbox"/>	Active SOAM GUI: Disable GLA application	<p>Navigate to Diameter -> Maintenance -> Applications.</p>  <p>Select the GLA applications to disable. Click Disable.</p> <table><tr><th>Application Name</th><th>MP Server Hostname</th><th>Admin State</th><th>Operational Status</th><th>Operational Reason</th><th>Congestion Level</th><th>Time of Last Update</th></tr><tr><td>GLA</td><td>MP4</td><td>Enabled</td><td>Available</td><td>Normal</td><td>Normal</td><td>2015-May-26 15:18:29 EDT</td></tr></table> <p><input type="button" value="Enable"/> <input type="button" value="Disable"/> <input type="checkbox"/> Pause updates</p> <p>Click OK to confirm.</p>	Application Name	MP Server Hostname	Admin State	Operational Status	Operational Reason	Congestion Level	Time of Last Update	GLA	MP4	Enabled	Available	Normal	Normal	2015-May-26 15:18:29 EDT
Application Name	MP Server Hostname	Admin State	Operational Status	Operational Reason	Congestion Level	Time of Last Update										
GLA	MP4	Enabled	Available	Normal	Normal	2015-May-26 15:18:29 EDT										
3. <input type="checkbox"/>	NOAM/SOAM VIP GUI: Logout	<p>Logout of any active NOAM and/or SOAM GUI sessions:</p> 														
4. <input type="checkbox"/>	NOAM VIP: Establish an SSH session	Establish an SSH session to the NOAM VIP. Login as admusr .														
5. <input type="checkbox"/>	NOAM VIP: Navigate to the feature activation directory	Navigate to the feature activation directory by executing the following command: <div>\$ cd /usr/TKLC/dsr/prod/maint/loaders/</div>														

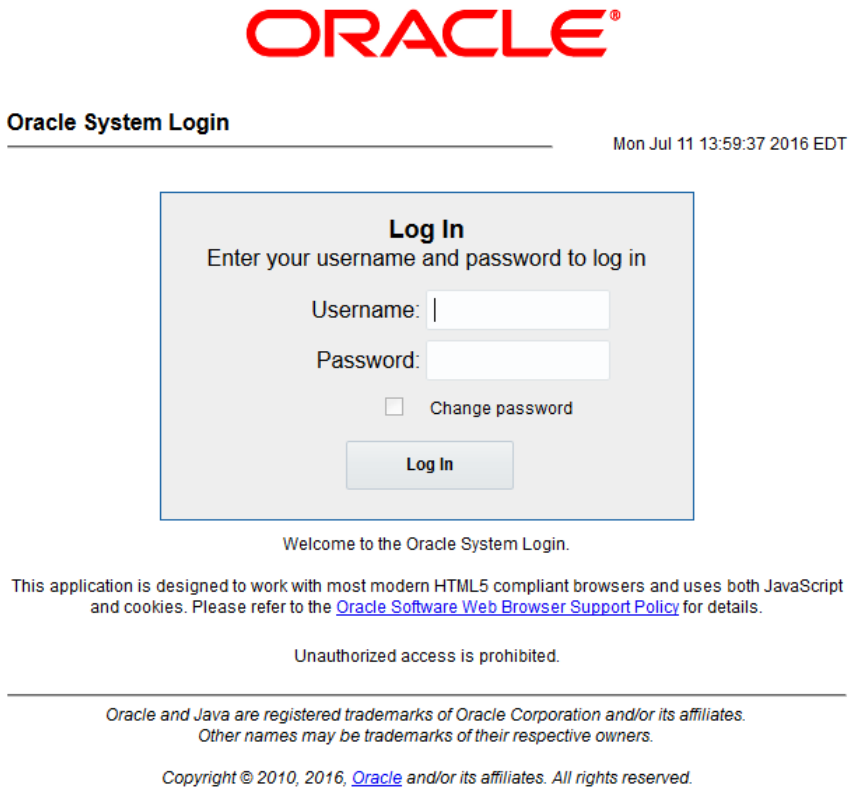
Procedure 7. Feature Deactivate

6. <input type="checkbox"/>	NOAM VIP: Execute the feature activation script	<p>Run the feature activation script by executing the following command:</p> <pre>\$./featureActivateDeactivate</pre> <p>Select Deactivate.</p> <pre>You want to Activate or Deactivate the Feature : 1.Activate 2.Deactivate Enter your choice : 2</pre> <p>Select GLA.</p> <pre>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</pre> <p>Select the SOAM site for which the application will be deactivated:</p> <p>Note: As an alternative, you can also deactivate on all SOAM sites:</p> <pre>The Active SO server configured in the Topology are ===== 1. Jetta-SO-2 2. ALL SOs Enter your choice on which SO you want to Activate or Deactivate the Feature : 2</pre> <p>Refer to Section 7.2 for output example.</p>
--------------------------------	---	---

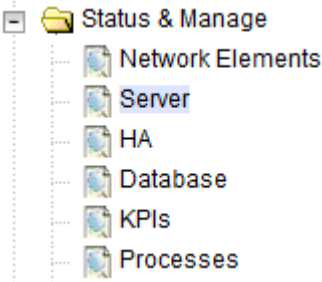
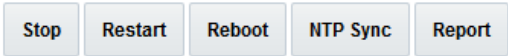
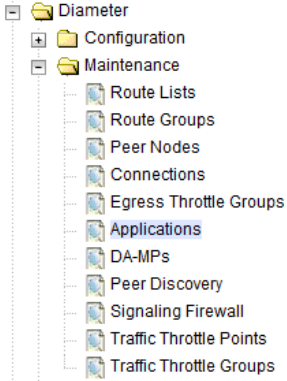
Procedure 7. Feature Deactivate

<p>7. <input type="checkbox"/></p>	<p>Active SOAM GUI: Login</p>	<p>Establish a GUI session on the active SOAM server by using IP address of the SOAM server. Open the web browser and enter a URL of:</p> <div data-bbox="492 310 1346 367" style="border: 1px solid black; padding: 2px;"> <code>http://<Active_SOAM_IP_Address></code> </div> <p>Login as the guiadmin user:</p> 
<p>8. <input type="checkbox"/></p>	<p>Active SOAM GUI: Verify the GLA folder is not visible</p>	<p>Verify the GLA folder is not visible under Main Menu.</p>
<p>9. <input type="checkbox"/></p>	<p>Standby SOAM GUI: Repeat verification steps</p>	<p>Repeat steps 7-8 for the standby SOAM.</p> <p>For DSR 5.1, 6.0, and 7.0, you will have to run the following command to Deactivate GLA on each spare SOAM:</p> <p>Note: For DSR 7.1 or later, skip this step.</p> <pre>\$ cd /usr/TKLC/dsr/prod/maint/loaders/deactivate \$./load.glaDeactivateBsourced</pre>

Procedure 7. Feature Deactivate

10. <input type="checkbox"/>	SOAM VIP GUI: Login	<p>Establish a GUI session on the SOAM server by using the VIP address of the SOAM server. Open the web browser and enter a URL of:</p> <div data-bbox="492 310 1346 367" style="border: 1px solid black; padding: 2px;"><code>http://<Primary_SOAM_VIP_IP_Address></code></div> <p>Login as the guiadmin user:</p> <div data-bbox="521 445 1364 1228"></div>
---------------------------------	-------------------------------	---

Procedure 7. Feature Deactivate

11. <input type="checkbox"/>	SOAM VIP GUI: Restart DA-MPs	<p>Multiple iterations of this step may be executed during the feature activation procedure. This is dependent on the number of DA-MP servers within your system. Make a written record of the number of times the step was performed. It is recommended that no more than 50% of the DA-MPs be restarted at once.</p> <p>Navigate to Status & Manage -> Server.</p>  <p>Select the desired DA-MPs, press Ctrl to select multiple DA-MPs at once. Click Restart.</p>  <p>Click OK to confirm.</p> <p>Verify the server changes to the Err state and wait until it returns to the Enabled/Norm state.</p> <p>Repeat for the additional DA-MPs.</p>
12. <input type="checkbox"/>	SOAM VIP GUI: Verify maintenance screen	<p>Navigate to Diameter -> Maintenance -> Applications.</p>  <p>Verify the GLA application is not present.</p>


6.3 Post-Deactivation Procedures

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

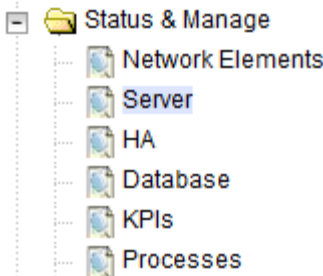
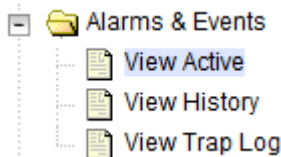

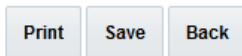
6.3.1 Perform Health Check

This procedure determines the health and status of the network and servers.

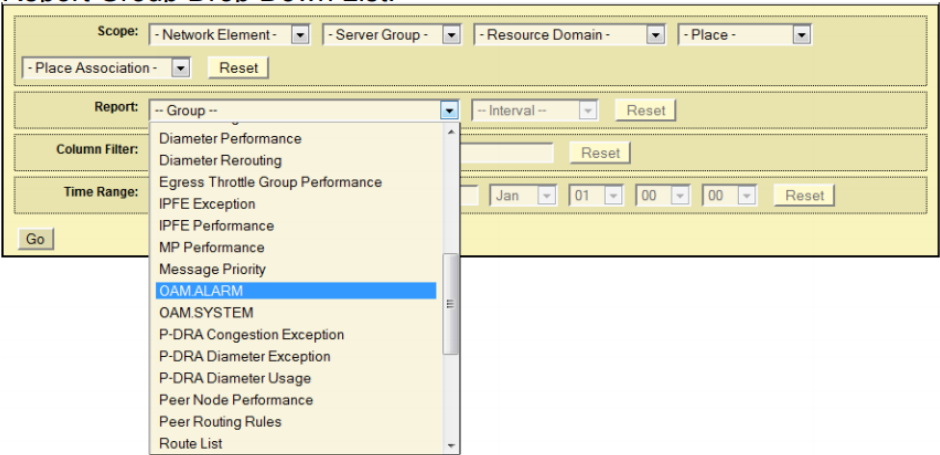
Procedure 8. Perform Health Check (Post-Feature Deactivation)

S T E P #	<p>This procedure performs a post activation health check.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>If this procedure fails, contact My Oracle Support (MOS) and ask for assistance.</p>
1. <input type="checkbox"/>	<p>NOAM VIP GUI:</p> <p>Login</p> <p>Establish a GUI session on the NOAM server by using the VIP address of the NOAM server. Open the web browser and enter a URL of:</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <code>http://<Primary_NOAM_VIP_IP_Address></code> </div> <p>Login as the guiadmin user:</p> 

Procedure 8. Perform Health Check (Post-Feature Deactivation)

2. <input type="checkbox"/>	NOAM VIP GUI: Verify server status	<p>Navigate to Status & Manage -> Server.</p>  <p>Verify all Server Status is Normal (Norm) for: Alarm (Alm), Database (DB), Replication Status, and Processes (Proc).</p> <table><tr><th>Appl State</th><th>Alm</th><th>DB</th><th>Reporting Status</th><th>Proc</th></tr><tr><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr></table>	Appl State	Alm	DB	Reporting Status	Proc	Enabled	Norm	Norm	Norm	Norm	Enabled	Norm	Norm	Norm	Norm	Enabled	Norm	Norm	Norm	Norm	Enabled	Norm	Norm	Norm	Norm
Appl State	Alm	DB	Reporting Status	Proc																							
Enabled	Norm	Norm	Norm	Norm																							
Enabled	Norm	Norm	Norm	Norm																							
Enabled	Norm	Norm	Norm	Norm																							
Enabled	Norm	Norm	Norm	Norm																							
3. <input type="checkbox"/>	NOAM VIP GUI: Log current alarms	<p>Navigate to Alarms & Events -> View Active.</p>  <p>Click Report.</p>  <p>Save or Print this report to keep copies for future reference.</p>  <p>Compare this alarm report with those gathered in the pre-Deactivation procedures. Contact My Oracle Support (MOS) if needed.</p> <p>Note: No routed service alarms should exist. These include the following alarms:</p> <table><tr><th>Alarm-ID</th><th>Alarm Condition</th></tr><tr><td>19820</td><td>Communication Agent Routed Service Unavailable</td></tr><tr><td>19821</td><td>Communication Agent Routed Service Degraded</td></tr><tr><td>19822</td><td>Communication Agent Routed Service Congested</td></tr><tr><td>19823</td><td>Communication Agent Routed Service Using Low-Priority Connection Group</td></tr></table>	Alarm-ID	Alarm Condition	19820	Communication Agent Routed Service Unavailable	19821	Communication Agent Routed Service Degraded	19822	Communication Agent Routed Service Congested	19823	Communication Agent Routed Service Using Low-Priority Connection Group															
Alarm-ID	Alarm Condition																										
19820	Communication Agent Routed Service Unavailable																										
19821	Communication Agent Routed Service Degraded																										
19822	Communication Agent Routed Service Congested																										
19823	Communication Agent Routed Service Using Low-Priority Connection Group																										
4. <input type="checkbox"/>	NOAM VIP GUI: Verify the KPIs are not shown for GLA	<p>Navigate to Status & Manage -> KPIs.</p> <p>Click the Filter icon.</p> <p>Verify the GLA feature KPIs, mentioned in Procedure 5, step 6. , are not displayed after deactivation.</p>																									

Procedure 8. Perform Health Check (Post-Feature Deactivation)

<div>5.</div> <div><input type="checkbox"/></div>	<p>NOAM VIP GUI: Verify the measurements are not shown for GLA</p>	<p>Navigate to Measurements -> Report. Verify the GLA Measurement groups are not listed in the Report options</p> <div></div>
---	---	---

7. 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.

7.1 Sample Output of Activation (Active NOAM)

```
[admusr@NO1 loaders]$ ls
activate      helper upgrade
deactivate    install      verifyFeatureActivation
featureActivateDeactivate load.dsr.install
[admusr@NO1 loaders]$ ./featureActivateDeactivate
Tue May 26 13:22:30 EDT 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 Applications
Enter the choice : 5
Run script to Activate gla 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.glaActivateAsourced script on NO1
=====
Policy DRA is enabled, proceeding ahead with GLA activation
=====
PCRF Pooling is enabled, proceeding ahead with GLA activation
```

```
=====
Add GLA to DsrApplication.
```

```
=====
id=13
name=GLA
unavailableAction=SendAnswer
avpInsertion=Yes
shutdownMode=Forced
shutdownTimer=0
resultCode=3002
vendorId=0
errorString=GLA: Unavailable
resExhResultCode=3004
resExhVendorId=0
resExhErrorString=GLA: Resource Exhausted
routeListId=-1
realm=
fqdn=
mcl=0
=====
```

```
Add GLA KPI group
```

```
=====
KPI_Group=GLA
Visibility=VIS_SO
=====
```

```
Add GLA Measurement groups
```

```
Meas_Group=GLA Performance
Visibility=VIS_SO
=====
```

```
Meas_Group=GLA Exception
Visibility=VIS_SO
=====
```

```
Add GLA GUI Configuration Permissions.
```

```
=====
_appid=17
group_id=9000
group_name=GLA Configuration Permissions
=====
```

```
Starting to Execute the Loaders on Mate server
```

```

=====
Executing /usr/TKLC/dsr/prod/maint/loaders/activate/load.glaActivateAsourced scr
ipt on NO2
=====
FIPS integrity verification test failed.
=====
Add GLA to DsrApplication.
=====

id=13
name=GLA
unavailableAction=SendAnswer
avpInsertion=Yes
shutdownMode=Forced
shutdownTimer=0
resultCode=3002
vendorId=0
errorString=GLA: Unavailable
resExhResultCode=3004
resExhVendorId=0
resExhErrorString=GLA: Resource Exhausted
routeListId=-1
realm=
fqdn=
mcl=0
=====

KPI_Group=GLA
Visibility=VIS_SO
=====

Meas_Group=GLA Performance
Visibility=VIS_SO
=====

Meas_Group=GLA Exception
Visibility=VIS_SO
=====

Add GLA GUI Configuration Permissions.
=====

_appid=17
group_id=9000
group_name=GLA Configuration Permissions

```

```
=====
FIPS integrity verification test failed.
=====
```

```
The Active SO server configured in the Topology are
=====
```

- ```
1. SO1
2. ALL SOs
```

```
Enter your choice on which SO you want to Activate or Deactivate the Feature :1
=====
```

```
This is a 3 Tier Setup , So run the B sourced loaders on SO server : SO1
```

```
Executing /usr/TKLC/dsr/prod/maint/loaders/activate/load.glaActivateBsourced scr
ipt on SO1
```

```
FIPS integrity verification test failed.
=====
```

```
Current server is HA ACTIVE
=====
```

```
PCA is already activated, Proceeding ahead
=====
```

```
Policy DRA is enabled, proceeding ahead with GLA activation
=====
```

```
PCRF Pooling is enabled, proceeding ahead with GLA activation
=====
```

```
Add GLA to DsrApplication.
=====
```

```
id=13
name=GLA
unavailableAction=SendAnswer
shutdownMode=Forced
shutdownTimer=0
resultCode=3002
vendorId=0
errorString=GLA: Unavailable
resExhResultCode=3004
resExhVendorId=0
resExhErrorString=GLA: Resource Exhausted
routeListId=-1
realm=
fqdn=
mcl=0
```

```
=====
Add Common DSR Application measurements for GLA.
=====
```

```
repgrp=DSR Application Performance
```

```
measid=15900
```

```
subgrp=
=====
```

```
repgrp=DSR Application Exception
```

```
measid=15904
```

```
subgrp=
=====
```

```
repgrp=DSR Application Performance
```

```
measid=15902
```

```
subgrp=
=====
```

```
repgrp=DSR Application Performance
```

```
measid=15903
```

```
subgrp=
=====
```

```
repgrp=DSR Application Performance
```

```
measid=15905
```

```
subgrp=
=====
```

```
repgrp=DSR Application Performance
```

```
measid=15906
```

```
subgrp=
=====
```

```
Add GLA GUI Configuration Permissions.
=====
```

```
_appid=17
```

```
group_id=9000
```

```
group_name=GLA Configuration Permissions
=====
```

```
FIPS integrity verification test failed.
=====
```

```
Executing the Loaders and Clearing Cache on Standby SO servers.
=====
```

```
Starting to Execute the Loaders on Mate server
=====
```

```

Executing /usr/TKLC/dsr/prod/maint/loaders/activate/load.glaActivateBsourced scr
ipt on S02
=====
FIPS integrity verification test failed.
=====
Current server is HA STANDBY
=====
PCA is already activated, Proceeding ahead
=====
Policy DRA is enabled, proceeding ahead with GLA activation
=====
PCRF Pooling is enabled, proceeding ahead with GLA activation
=====
id=13
name=GLA
unavailableAction=SendAnswer
avpInsertion=Yes
shutdownMode=Forced
shutdownTimer=0
resultCode=3002
vendorId=0
errorString=GLA: Unavailable
resExhResultCode=3004
resExhVendorId=0
resExhErrorString=GLA: Resource Exhausted
routeListId=-1
realm=
fqdn=
mcl=0
=====
Add GLA GUI Configuration Permissions.
=====
_appid=17
group_id=9000
group_name=GLA Configuration Permissions
=====
FIPS integrity verification test failed.
=====
Do you want to activate/deactivate this feature on another System OAM Server

```

```
[Y/N
] : n
[admusr@NO1 loaders]$
```

## 7.2 Sample Output of Deactivation (Active NOAM)

```
[admusr@NO2 loaders]$./featureActivateDeactivate
Tue Apr 1 02:21:17 EDT 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.DeactivateEnter 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 : 5
Run script to Deactivate gla Feature
=====S-T-A-R-T=====
Execution of Activation/Deactivation Process Starts
=====
Starting Activation/Deactivation process....
Executing /usr/TKLC/dsr/prod/maint/loaders/deactivate/load.glaDeactivateAsourced
script on NO2
=====
Hiding GLA KPI group and Measurement Groups
=====
=== deleted 1 records ===
=====
Hiding GLA measurement groups
=====
=== deleted 1 records ===
=== deleted 1 records ===
=====
```



```

Removing GLA from the DSR Application Table
=====
=== deleted 1 records ===
=====

Removing GLA GUI permissions.
=====
=== deleted 1 records ===
=====

Starting to Execute the Loaders on Standby server
=====

Executing /usr/TKLC/dsr/prod/maint/loaders/deactivate/load.glaDeactivateAsourced
script on NO1
=====

Removing GLA GUI permissions.
=====
=== deleted 0 records ===
=====

The Active SO server configured in the Topology are
=====

1. SO1
2. ALL SOs
Enter your choice on which SO you want to Activate or Deactivate the Feature :1
=====

This is a 3 Tier Setup , So run the B sourced loaders on SO server : SO1
Executing /usr/TKLC/dsr/prod/maint/loaders/deactivate/load.glaDeactivateBsourced
script on SO1
=====

Current server is HA ACTIVE
=====

Removing all ART rules pointing to GLA
=====
=== deleted 0 records ===
=====

Removing applicationId=13(GLA) from the DSR Application Per Mp Table
=====
=== deleted 0 records ===
=====

Removing GLA from the DSR Application Table
=====
=== deleted 1 records ===
=====

```

```

=====
=== deleted 3 records ===
=====

Removing GLA GUI permissions.

=====

=== deleted 1 records ===
=====

Executing the Loaders and Clearing Cache on Standby SO servers.

=====

Starting to Execute the Loaders on Standby server

=====

Executing /usr/TKLC/dsr/prod/maint/loaders/deactivate/load.glaDeactivateBsources
script on SO2

=====

Current server is HA STANDBY

=====

Removing GLA GUI permissions.

=====

=== deleted 0 records ===
=====

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, 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.