

Oracle® Communications
Diameter Signaling Router Full Address Based Resolution

SDS Software Upgrade Guide
Release 7.x

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SDS Software Upgrade Guide

Oracle® Communications Diameter Signaling Router Full Address Based Resolution, SDS Software Upgrade Guide

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1. INTRODUCTION

1.1 Purpose and Scope

This document describes methods utilized and procedures executed to perform an application software upgrade on in-service SDS servers and SDS DP blades in an SDS network. The supported paths are:

- Major upgrade from SDS 5.0.x to SDS 7.1.x
- Minor upgrade from SDS release 7.1.0-71.x to a later 7.1.y-71.z.0 release
- Major upgrade from SDS 5.0.x or 7.1.x to SDS 7.2
- Minor upgrade from SDS release 7.2.0-72.x to a later 7.2.y-72.z.0 release

The audience for this document includes Oracle customers as well as the SDS group: Global Software Delivery.

This document provides step-by-step instructions to execute any Release 7.1.x or 7.2 software upgrade.

The SDS software includes all Tekelec Platform Distribution (TPD) software. Any TPD upgrade necessary is included automatically as part of the SDS software upgrade. The execution of this procedure assumes that the SDS software load (ISO file, CD-ROM or other form of media) has already been delivered to the customer's premises. This includes delivery of the software load to the local workstation being used to perform this upgrade.

NOTE: The distribution of the SDS software load is outside the scope of this procedure.

The SDS 7.1 release introduces the following upgrade features:

- **SDS service continuity during upgrade (20162763)**

All SDS functionality is maintained during software upgrades. Provisioning and replication of database updates to DPs continues throughout the upgrade process. With this feature, users do not have to enable/disable global provisioning before and after the upgrade. The remote provisioning (SOAP, XML) will not be interrupted during the upgrade except the case when HA switchover occurs on the Primary SDS site. Note that the VIP address of Primary SDS site should be used for the remote provisioning.

- **Server Group-Based automated upgrade (19114416)**

This feature allows the user to perform the auto-upgrade of all servers within the same Server Group. If the "serial" mode is chosen during the auto-upgrade, then the standby server will be upgraded first, and the active server will be upgraded last.

The SDS 7.2 release introduces the following features:

- **SDS Capacity Increase (20538191)**

This feature increases the database capacity of the Database Processor to support 1 billion Routing Entities.

- **SDS Subscriber Timestamps (19727402)**

This feature supports the capability to add date/time fields to the Subscriber records to indicate the date and time that a Subscriber record was created or modified.

1.2 References

- [1] SDS 7.1/7.2 Initial Installation and Configuration Guide, E58856
- [2] Database Management: Backup and System Restoration, UG005196
- [3] SDS 7.1/7.2 Disaster Recovery Guide, E59145
- [4] HP Solutions Firmware Upgrade Pack Release Notes, 795-000-2xx, v2.1.5 (or latest 2.1 version)
- [5] Platform 7.0 Configuration Guide, E53486

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1.3 Acronyms

Table 1 - Acronyms

Acronym	Meaning
CLI	Command Line Interface
CSV	Comma-separated Values
DP	Database Processor
DR	Disaster Recovery
GA	General Availability
GUI	Graphical User Interface
HA	High Availability
IMI	Internal Management Interface
IPM	Initial Product Manufacture
ISO	ISO 9660 file system
LA	Limited Availability
MOP	Method of Procedure
MP	Message Processing or Message Processor
NE	Network Element
NO (or NOAM)	Network OAM&P
OAM&P	Operations, Administration, Maintenance and Provisioning
SDS	Subscriber Database Server
SO (or SOAM)	System OAM
TPD	Tekelec Platform Distribution
UI	User Interface
VIP	Virtual IP
VPN	Virtual Private Network
XMI	External Management Interface
XSI	External Signaling Interface

1.4 Terminology

This section describes terminology as it is used within this document.

Table 2 - Terminology

Term	Meaning
Upgrade	The process of converting an application from its current release on a System to a newer release.
Major Upgrade	An upgrade from a current major release to a newer major release. An example of a major upgrade is: SOME_APPLICATION 1.0.0_10.1.0 to 2.0.0_20.1.0.
Incremental Upgrade	An upgrade from a current build to a newer build within the same major release. An example of an incremental upgrade is: SOME_APPLICATION 2.0.0_20.1.0 to 2.0.0_20.2.0.
Software Only Upgrade	An upgrade that does not require a Database Schema change, only the software is changed.
Single Server Upgrade	The process of converting an SDS server from its current release on a single server to a newer release.
Backout	The process of reverting a single SDS server to a prior version. This could be performed due to failure in Single Server Upgrade.
Rollback	Automatic recovery procedure that puts a server into its pre-upgrade status. This procedure occurs automatically during upgrade if there is a failure.
Source Release	Software release to upgrade from.
Target Release	Software release to upgrade to.

Upgrade Ready	<p>State that allows for graceful upgrade of a server without degradation of service. It is a state that a server is required to be in before it can be upgraded. The state is defined by the following attributes:</p> <ul style="list-style-type: none"> • Server is Forced Standby • Server is Application Disabled (Signaling servers will not process any traffic)
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1.5 How to use this Document

When executing this document, there are a few key points which help to ensure that the user understands the author’s intent. These points are as follows;

- 1) Before beginning a procedure, completely read the instructional text (it will appear immediately after the Section heading for each procedure) and all associated procedural WARNINGS or NOTES.
- 2) Before the execution of a STEP within a procedure, completely read the left and right columns including any STEP specific WARNINGS or NOTES.
- 3) If a procedural STEP fails to execute successfully or fails to receive the desired output, **STOP** the procedure. It is recommended to contact MOS as described in Appendix N for assistance before attempting to continue.

1.6 Executing Procedures

The user should be familiar with the structure and conventions used within this document before attempting execution. and the details below provide an example of how procedural steps might be displayed within this document.

Column 1: Step

- , Column 1, contains the Step number and also a checkbox if the step requires action by the user.
- Sub-steps within a given Step X are referred to as Step X.Y.
- Each checkbox should be checked-off in order to keep track of the progress during execution of the procedure.

Column 2: Procedure

- , column 2, contains a heading which indicates the server/IP being accessed as well as text instructions and/or notes to the user. This column may also describe the operations to be performed or observed during the step.

Column 3: Result

- , column 3, generally displays the results of executing the instructions (shown in column 2) to the user.
- The Result column may also display any of the following:
 - Inputs (commands or responses) required by the user.
 - Outputs which should be displayed on the terminal.
 - Illustrations or graphic figures related to the step instruction.
 - Screen captures from the product GUI related to the step instruction.

Table 3 - Sample Procedure

Procedure X: Verifying the Time in GMT

Step	Procedure	Result
1. <input type="checkbox"/>	Active Provisioning Site VIP: Log into the server as the “admusr” user.	login: admusr Password: <admusr_password>
2. <input type="checkbox"/>	Active Provisioning Site VIP: Output similar to that shown on the right will appear as the server returns to a command prompt.	*** TRUNCATED OUTPUT *** VPATH=/var/TKLC/rundb:/usr/TKLC/appworks:/usr/TKLC/awpcommon:/usr/TKLC/comagent-gui:/usr/TKLC/comagent-gui:/usr/TKLC/comagent:/usr/TKLC/sds PRODPATH=/opt/comcol/prod RUNID=00 \$

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Procedure X: Verifying the Time in GMT

Step	Procedure	Result
3. <input type="checkbox"/>	Active Provisioning Site VIP: Verify that the correct Date & Time are displayed in GMT (+/- 4 min.).	<code>\$ date -u</code> Mon Jan 26 16:34:38 UTC 2015
THIS PROCEDURE HAS BEEN COMPLETED		

1.7 Activity Logging

All activity while connected to the system should be logged using a convention which notates the **Customer Name**, **Site/Node** location, **Server Hostname** and the **Date**. All logs should be provided to Oracle for archiving post upgrade.

1.8 Use of Health Checks

The user may execute the **Perform Health Check** or **View Logs** steps freely or repeat as many times as desired in between procedures during the upgrade process. It is not recommended to do this in between steps within a procedure, unless there is a failure to troubleshoot.

1.9 Large Installation Support

For large systems containing multiple Signaling Network Elements, it may not be feasible to apply the software upgrade to every Network Element within a single maintenance window. However, whenever possible, Primary SDS site and DR SDS site network elements should be upgraded within the same maintenance window.

2. GENERAL DESCRIPTION

This document defines the step-by-step actions performed to execute a software upgrade of an in-service SDS from the source release to the target release.

2.1 SDS 7.1 Supported Upgrade Paths

The supported SDS 7.1 upgrade paths are shown in Figure 1 and Figure 2.

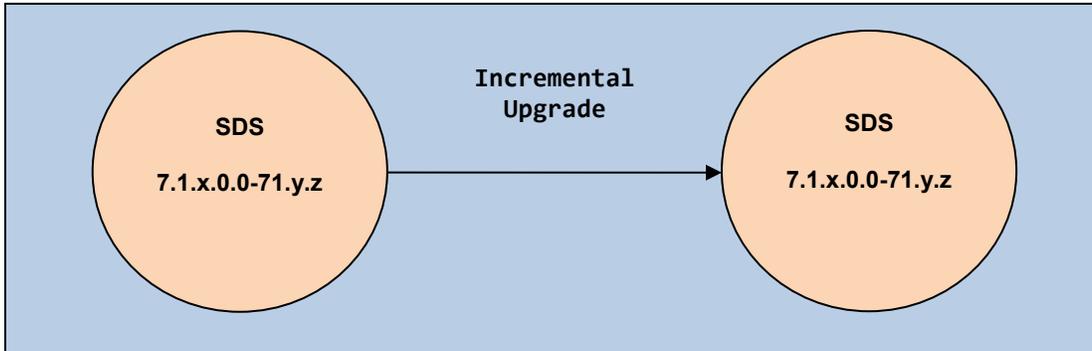


Figure 1: Supported Incremental Upgrade Paths

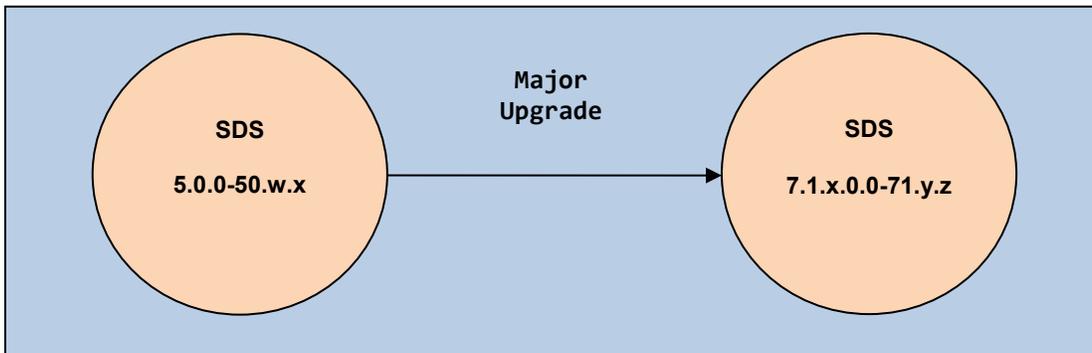


Figure 2: Supported Major Upgrade Paths

NOTE: Initial Installation is not within the scope of this upgrade document. See Initial Install doc [1] for more info.

2.2 SDS 7.2 Supported Upgrade Paths

The supported SDS 7.2 upgrade paths are shown in Figure 3, Figure 4, and Figure 5.

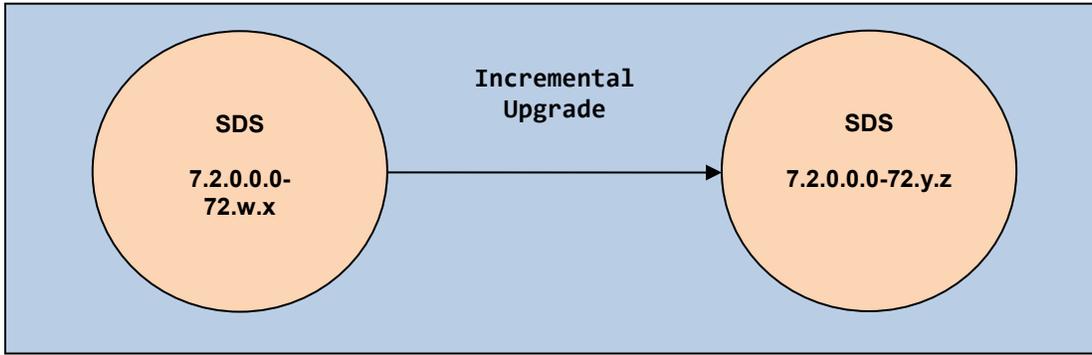


Figure 3: Supported Incremental Upgrade Paths

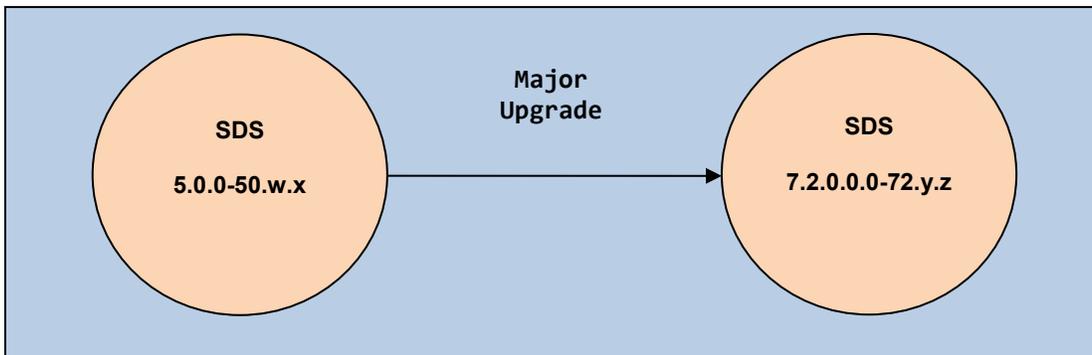


Figure 4: Supported Major Upgrade Paths

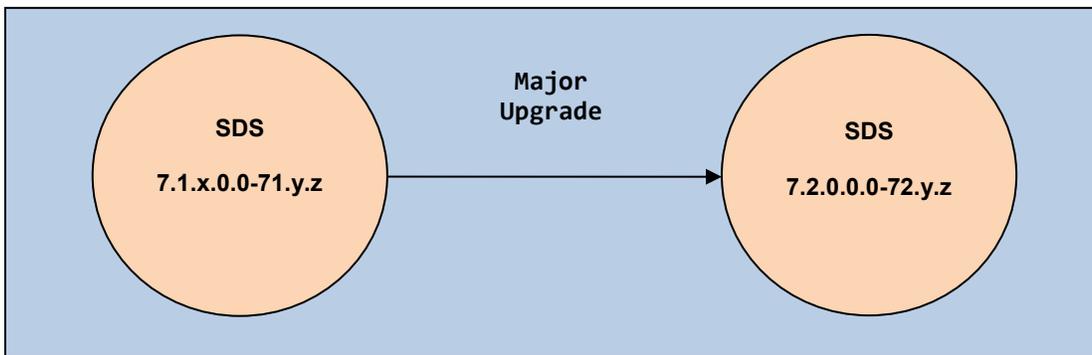


Figure 5: Supported Major Upgrade Paths

3. UPGRADE OVERVIEW

This section lists the required materials and information needed to execute an upgrade. It also provides a brief timing overview of the activities needed to upgrade the source release software that is installed and running on an SDS server to the target release software. The approximate time required is outlined in **Sections 3.3** through **3.7**. These tables are used to plan and estimate the time necessary to complete the upgrade.

Timing values are estimates only. They estimate the completion time of a step or group of steps for an experienced user. These tables are not to be used to execute procedures. Detailed steps for each procedure are provided in **Section 5**.

3.1 Upgrade Requirements

The following levels of access, materials and information are needed to execute an upgrade:

- Target-release ISO image file (Example: **SDS-7.1.0.0.0_71.2.0-x86_64.iso**)
- VPN access to the customer's network.
- GUI access to the SDS Network OAM&P VIP with administrator's privileges.
- SSH/SFTP access to the SDS Network OAM&P XMI VIP as the "admusr" user.

NOTE: All logins into the SDS Active and DR site servers are made via the External Management (XMI) VIP unless otherwise stated.

- User logins, passwords, IP addresses and other administration information. See Section 3.1.2.
- Direct access to server IMI IP addresses from the user's local workstation is preferable in the case of a backout.

NOTE: If direct access to the IMI IP addresses isn't available, then access to target server can be made via a tandem connection through the Active Primary SDS (i.e. an SSH connection is made to the Active Primary SDS XMI first, then from the Active Primary SDS, an 2nd SSH connection can be made to the target server's IMI IP address).

3.1.1 ISO Image File

Obtain a copy of the target release ISO image file. This file is necessary to perform the upgrade.

The SDS ISO image filename is in the following format:

Example: **SDS-7.1.0.0.0_71.2.0-x86_64.iso**

NOTE: Actual number values will vary between releases.

Prior to the execution of this upgrade procedure it is assumed that the SDS ISO image file has already been delivered to the customer's system. The delivery of the ISO image requires that the file be placed on the disk of a PC workstation with GUI access to the SDS XMI VIP. If the user performing the upgrade is at a remote location, it is assumed the ISO file is has already been transferred to the Active Primary SDS server prior to starting the upgrade procedure.

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3.1.2 Logins, Passwords and Site Information

Obtain all the information requested in the following table. This ensures that the necessary administration information is available prior to an upgrade. Consider the confidential nature of the information recorded in this table. While all of the information in the table is required to complete the upgrade, there may be security policies in place that require secure disposal once the upgrade has been completed.

Table 4 - Logins, Passwords and Site Information

NE Type	NE Name†
Primary SDS Site	
DR SDS Site	
SOAM 1 Site	
SOAM 2 Site	
SOAM 3 Site	
SOAM 4 Site	
Software	Values
Source Release Level	
Target Release Level	
Target Release ISO file name	
Access Information	Values
Primary Site XMI VIP (GUI)	
DR Site XMI VIP	
SDS GUI Admin Username and Password	
SDS “root” user Password	
SDS “admusr” user Password	
SDS “platcfg” user Password	
Blade’s iLO Admin Username and Password	
PM&C GUI Admin Username and Password *	
PM&C user “root” Password *	
PM&C user “admusr” Password *	
PM&C user “PM&Cftpusr” Password *	
Onboard Administrator GUI Admin Username and Password	

* Not applicable for Cloud deployments

3.2 Upgrade Maintenance Windows



!! WARNING !!

It is recommended that SOAM NE sites containing mated Database Processors (DP) be upgraded in separate maintenance windows if at all possible.

Table 5 - Upgrade Maintenance Windows

<p>Maintenance Window _____</p> <p>Date: _____</p> <p>Record the names of the Primary SDS NE site, DR SDS NE site, and server's hostnames to be upgraded during Maintenance Window 1 in the space provided on the right:</p>	<p>Primary SDS NE site name: _____</p> <p><input type="checkbox"/> Primary SDS Active Server: _____</p> <p><input type="checkbox"/> Primary SDS Standby Server: _____</p> <p><input type="checkbox"/> Primary SDS Query Server: _____</p> <p>DR SDS NE site name: _____</p> <p><input type="checkbox"/> DR SDS Active Server: _____</p> <p><input type="checkbox"/> DR SDS Standby Server: _____</p> <p><input type="checkbox"/> DR SDS Query Server: _____</p> <p>• Check-off <input checked="" type="checkbox"/> the associated check box as the upgrade is completed for each server</p>
<p>Maintenance Window _____</p> <p>Date: _____</p> <p>Record the name of SOAM NE site and its server's hostnames to be upgraded during the Maintenance Window 2 in the spaces provided on the right.</p>	<p>SOAM NE site name: _____</p> <p><input type="checkbox"/> Active SOAM Server: _____</p> <p><input type="checkbox"/> Standby SOAM Server: _____</p> <p><input type="checkbox"/> DP 1 Server: _____ <input type="checkbox"/> DP 6 Server: _____</p> <p><input type="checkbox"/> DP 2 Server: _____ <input type="checkbox"/> DP 7 Server: _____</p> <p><input type="checkbox"/> DP 3 Server: _____ <input type="checkbox"/> DP 8 Server: _____</p> <p><input type="checkbox"/> DP 4 Server: _____ <input type="checkbox"/> DP 9 Server: _____</p> <p><input type="checkbox"/> DP 5 Server: _____ <input type="checkbox"/> DP 10 Server: _____</p> <p>• Check-off <input checked="" type="checkbox"/> the associated check box as the upgrade is completed for each server</p>

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<p>Maintenance Window _____</p> <p>Date: _____</p> <p>Record the name of SOAM NE site and its server's hostnames to be upgraded during the Maintenance Window 2 in the spaces provided on the right.</p>	<p>SOAM NE site name: _____</p> <p><input type="checkbox"/> Active SOAM Server: _____</p> <p><input type="checkbox"/> Standby SOAM Server: _____</p> <p><input type="checkbox"/> DP 1 Server: _____ <input type="checkbox"/> DP 6 Server: _____</p> <p><input type="checkbox"/> DP 2 Server: _____ <input type="checkbox"/> DP 7 Server: _____</p> <p><input type="checkbox"/> DP 3 Server: _____ <input type="checkbox"/> DP 8 Server: _____</p> <p><input type="checkbox"/> DP 4 Server: _____ <input type="checkbox"/> DP 9 Server: _____</p> <p><input type="checkbox"/> DP 5 Server: _____ <input type="checkbox"/> DP 10 Server: _____</p> <p>• Check-off <input checked="" type="checkbox"/> the associated check box as the upgrade is completed for each server</p>
<p>Maintenance Window _____</p> <p>Date: _____</p> <p>Record the name of SOAM NE site and its server's hostnames to be upgraded during the Maintenance Window 2 in the spaces provided on the right.</p>	<p>SOAM NE site name: _____</p> <p><input type="checkbox"/> Active SOAM Server: _____</p> <p><input type="checkbox"/> Standby SOAM Server: _____</p> <p><input type="checkbox"/> DP 1 Server: _____ <input type="checkbox"/> DP 6 Server: _____</p> <p><input type="checkbox"/> DP 2 Server: _____ <input type="checkbox"/> DP 7 Server: _____</p> <p><input type="checkbox"/> DP 3 Server: _____ <input type="checkbox"/> DP 8 Server: _____</p> <p><input type="checkbox"/> DP 4 Server: _____ <input type="checkbox"/> DP 9 Server: _____</p> <p><input type="checkbox"/> DP 5 Server: _____ <input type="checkbox"/> DP 10 Server: _____</p> <p>• Check-off <input checked="" type="checkbox"/> the associated check box as the upgrade is completed for each server</p>
<p>Maintenance Window _____</p> <p>Date: _____</p> <p>Record the name of SOAM NE site and its server's hostnames to be upgraded during the Maintenance Window 2 in the spaces provided on the right.</p>	<p>SOAM NE site name: _____</p> <p><input type="checkbox"/> Active SOAM Server: _____</p> <p><input type="checkbox"/> Standby SOAM Server: _____</p> <p><input type="checkbox"/> DP 1 Server: _____ <input type="checkbox"/> DP 6 Server: _____</p> <p><input type="checkbox"/> DP 2 Server: _____ <input type="checkbox"/> DP 7 Server: _____</p> <p><input type="checkbox"/> DP 3 Server: _____ <input type="checkbox"/> DP 8 Server: _____</p> <p><input type="checkbox"/> DP 4 Server: _____ <input type="checkbox"/> DP 9 Server: _____</p> <p><input type="checkbox"/> DP 5 Server: _____ <input type="checkbox"/> DP 10 Server: _____</p> <p>• Check-off <input checked="" type="checkbox"/> the associated check box as the upgrade is completed for each server</p>

NOTE: Make copies of this sheet as needed for more additional **SOAM NE** sites

3.3 Upgrade Preparation Overview

The pre-upgrade procedures shown in the following table should be executed prior to the upgrade maintenance window and may be executed outside a maintenance window if desired.

Table 6 - Upgrade Preparation Procedures

Procedure Number	Procedure Title	Elapsed Time (Hrs:Min)	
		This Step	Cumulative
1	Requirements Check	00:15	00:15
2	ISO Administration	*	*
3	Full Database Backup (PROV & COMCOL ENV for All Servers)	01:00	01:15

***NOTE:** ISO transfers to the target systems cannot be estimated since times will vary significantly depending on the number of systems and the speed of the network. The ISO transfers to the target systems should be performed prior to the scheduled maintenance window. The user should schedule the required maintenance windows accordingly.

3.4 Primary SDS site / DR SDS site Upgrade Execution Overview

The procedures shown in the following table are executed inside a maintenance window.

Table 7 - Primary SDS / DR SDS Upgrade Procedures

Procedure Number	Procedure Title	Elapsed Time (Hrs:Min)	
		This Step	Cumulative
4	Upgrade Primary SDS NOAM NE	01:00	02:15
5	Upgrade DR SDS NOAM NE	01:00	03:15

3.5 SOAM Upgrade Execution Overview

The procedures shown in the following table should be executed inside a separate maintenance window.

Table 8 - SOAM Upgrade Procedures

Procedure Number	Procedure Title	Elapsed Time (Hrs:Min)	
		This Step	Cumulative
6	Upgrade SOAM NE	01:30	01:30

3.6 Post Upgrade Execution Overview

These procedures are performed only after all sites on network have been upgraded.

Table 9 - Post Upgrade Procedures

Procedure Number	Procedure Title	Elapsed Time (Hrs:Min)	
		This Step	Cumulative
7	Accepting the Upgrade	*	*

3.7 Recovery Procedures Overview

These procedures are customized to the specific situation encountered and therefore do not have well established timeframes.

Table 10 - Backout Procedures

Procedure Number	Procedure Title	Elapsed Time (Hrs:Min)	
		This Step	Cumulative
9	Backout of a SOAM NE	*	*
10	Backout of the DR SDS NOAM NE	*	*
11	Backout of the Primary SDS NOAM NE	*	*

4. SDS UPGRADE MATRIX

Upgrading the SDS product in the customer network is a task which requires multiple procedures of varying types. The matrix shown below provides a guide to the user as to which procedures are to be performed on which site types. As always, it is recommended to contact MOS for assistance if experiencing difficulties with the interpretation or execution of any of the procedures listed.

NOTE: Primary SDS and DR SDS sites must be upgraded in the same maintenance window.

SDS Upgrade Matrix

Network Element Type		1	2*†	3	4*	5†	6*†	7
<input type="checkbox"/>	Primary NOAM NE DR NOAM NE (SDS / Query Server)	✓	✓	✓	✓	✓	✗	✓
<input type="checkbox"/>	SOAM NE (SOAM / DP)	✓	✗	✗	✗	✗	✓	✓

Table 11 - SDS Upgrade Matrix

* **Appendix B (Health Check Procedures)** is executed before starting this procedure.

† **Appendix B (Health Check Procedures)** is executed after completing this procedure.

SDS Upgrade: List of Procedures

Procedure	Title	Page
1	Requirements Check	20
2	ISO Administration	21
3	Full Database Backup (PROV & COMCOL ENV for All Servers)	29
4	Upgrade Primary SDS NOAM NE	38
5	Upgrade DR SDS NOAM NE	52
6	Upgrade SOAM NE	56
7	Accepting the Upgrade	59

Table 12 - SDS Upgrade: List of Procedures

5. UPGRADE PREPARATION

This section provides detailed procedures to prepare a system for upgrade execution. These procedures may be executed outside of a maintenance window.

5.1 Requirements Check

This procedure verifies that all required materials needed to perform an upgrade have been collected and recorded.

Procedure 1: Requirements Check

Step	Procedure	Result
1. <input type="checkbox"/>	Verify that all upgrade requirements have been met.	<ul style="list-style-type: none">Requirements are listed in Section 3.1: (Upgrade Requirements). Verify that all Upgrade requirements have been met.
2. <input type="checkbox"/>	Verify all administration data needed during upgrade.	<ul style="list-style-type: none">Verify that all information in Section 3.1.2 (Logins, Passwords and Site Information) has been entered and is accurate.

5.2 Review Release Notes

Before starting the upgrade, review the Release Notes for the SDS 7.1.x or 7.2 release to understand the functional differences (if any) and possible impacts to the upgrade. When upgrading SDS to the target release, the following alarms may be reported on the GUI during the period of time when the Primary SDS Site NE is at the new software level and the DR SDS Site NE is at the old software level:

- 31124: A DB replication audit command detected errors
- 31105: The DB merge process (inetmerge) is impaired by a s/w fault

These alarms, if present, will exist for the Active and Standby DR SDS Site servers. They should clear automatically within 5 minutes, and will cease to be raised once the DR Provisioning Site NE is upgraded to the same software level as the Primary SDS Site. To avoid seeing these alarms altogether, the upgrade of the Primary SDS Site and DR SDS Site NEs should be performed within the same maintenance window.

5.3 Perform Firmware Verification (*Upgrade Preparation*)

This section is not applicable to a software-centric upgrade.

This procedure is part of Software Upgrade Preparation and is necessary to determine the whether a firmware update is required. If [4] has been provided with the upgrade material, follow the provided instructions to verify the firmware on SDS rack mount servers and DP blades. Execute firmware upgrade procedures if required by [4]:

Appendix A.1.1

- Execute Section entitled “Upgrade DL360 or DL380 Server Firmware” of for SDS rack mount servers.
- Execute Section entitled “Upgrade Blade Server Firmware” for SDS DP blades.

5.4 Verify Shared Segments and Logical Volumes (*Major Upgrade from SDS 5.0 Only*)

If performing a **major upgrade** from **SDS 5.0.x** to **SDS 7.x**, then the user must ensure that shared segments and logical volumes on all SDS servers are in the correct state before upgrading to **SDS 7.x**.

 STOP !	<input type="checkbox"/> Verify Shared Segments and Logical Volumes for all servers in the SDS topology as specified in Appendix F (<i>Verifying Shared Segments and Logical Volumes</i>).
--	--

5.5 Perform Health Check (*Upgrade Preparation*)

This procedure is part of Software Upgrade Preparation and is used to determine the health and status of the SDS network and servers. This procedure 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 a maintenance window.

- Execute SDS Health Check procedures as specified in **Appendix B**.

5.6 ISO Administration

ISO transfers to the target servers may require a significant amount of time depending on the number of systems and the speed of the network. Therefore, it is highly recommended that the ISO transfers to the target servers be completed prior to the first scheduled maintenance window.

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

SHOULD ANY STEP IN THIS PROCEDURE FAIL, IT IS RECOMMENDED TO STOP AND CONTACT MOS FOR ASSISTANCE BEFORE CONTINUING!



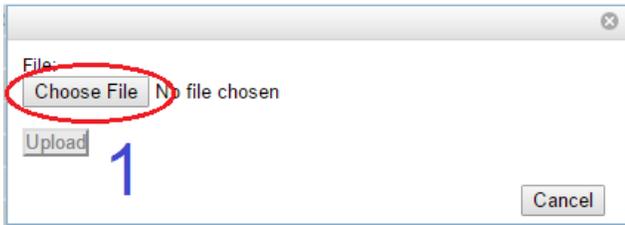
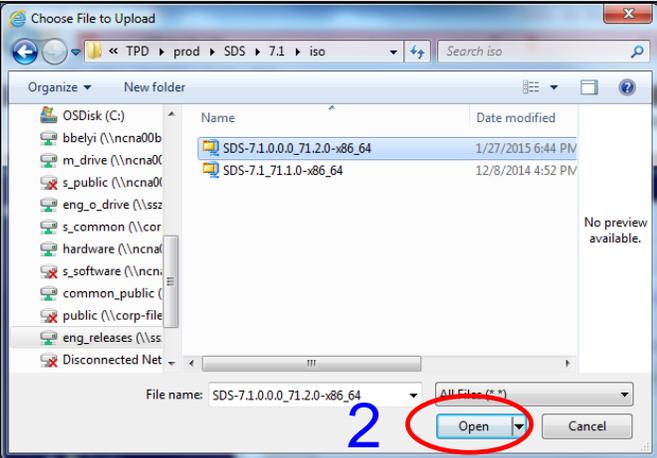
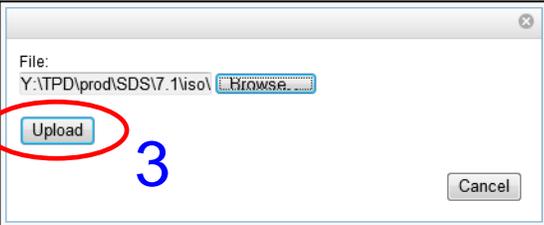
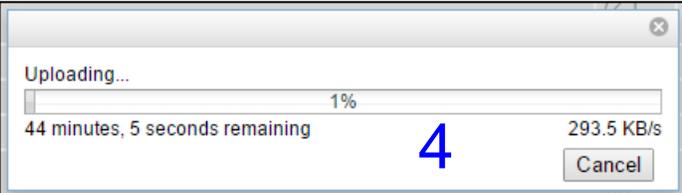
- **Appendix I:** (Adding the SDS ISO to the PM&C Software Repository) may be executed at anytime after Procedure 2: ISO Administration) has been completed.

Procedure 2: ISO Administration

Step	Procedure	Result
1. <input type="checkbox"/>	Using the VIP address, access the Primary SDS NOAM GUI .	<ul style="list-style-type: none"> • Using VIP address, access the Primary SDS NOAM GUI as described in Appendix A.
2. <input type="checkbox"/>	<p>Primary SDS NOAM VIP (GUI):</p> <p>1) Select...</p> <p>Main Menu → Status & Manage → Files</p> <p>2) Select the hostname of the Active Primary SDS server from the list tabs.</p> <p>3) Click on the “Upload” button.</p> <p>NOTE: <i>The Active Primary SDS server will be displayed in the GUI banner as being connected to the VIP with a state of ACTIVE NETWORK OAM&P.</i></p>	

SDS Software Upgrade Guide

Procedure 2: ISO Administration

Step	Procedure	Result
<p>3.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 5px 0;"></div>	<p>Primary SDS NOAM VIP:</p> <p>1) Click the “Choose File” dialogue button</p> <p>2) Select the Drive and directory location of the ISO file for the target release. Select the ISO file and click the “Open” dialogue button.</p> <p>3) Click the “Upload” dialogue button.</p> <p>4) Monitor the upload until the file transfer completes reaches with 100%.</p> <p>NOTE: <i>If transferring the ISO file to the server manually (scp), the iso must be placed in the /var/TKLC/db/filemgmt/ directory with 664 permissions and awadmin:awadm ownership.</i></p>	   

SDS Software Upgrade Guide

Procedure 2: ISO Administration

Step	Procedure	Result																				
4.	<p>Primary SDS NOAM VIP:</p> <p>In the top right side of the right panel, Click the “Timestamp” heading twice so that the arrow to the right points down (<i>this will bring the most recent files the top of the screen</i>).</p> <p>The ISO file uploaded in Step 3 of this procedure should now appear at the top most position in the “File Name” column.</p>	<table border="1"> <thead> <tr> <th>File Name</th> <th>Size</th> <th>Type</th> <th>Timestamp</th> </tr> </thead> <tbody> <tr> <td>SDS-7.1.0.0.0_71.2.0-x86_64.iso</td> <td>863.6 MB</td> <td>iso</td> <td>2015-02-03 21:09:37 UTC</td> </tr> <tr> <td>rsync.log</td> <td>2.1 KB</td> <td>log</td> <td>2015-02-03 00:00:03 UTC</td> </tr> <tr> <td>upgrade.log</td> <td>87.7 KB</td> <td>log</td> <td>2015-01-30 17:10:18 UTC</td> </tr> <tr> <td>ugwrap.log</td> <td>1.3 KB</td> <td>log</td> <td>2015-01-29 19:46:05 UTC</td> </tr> </tbody> </table>	File Name	Size	Type	Timestamp	SDS-7.1.0.0.0_71.2.0-x86_64.iso	863.6 MB	iso	2015-02-03 21:09:37 UTC	rsync.log	2.1 KB	log	2015-02-03 00:00:03 UTC	upgrade.log	87.7 KB	log	2015-01-30 17:10:18 UTC	ugwrap.log	1.3 KB	log	2015-01-29 19:46:05 UTC
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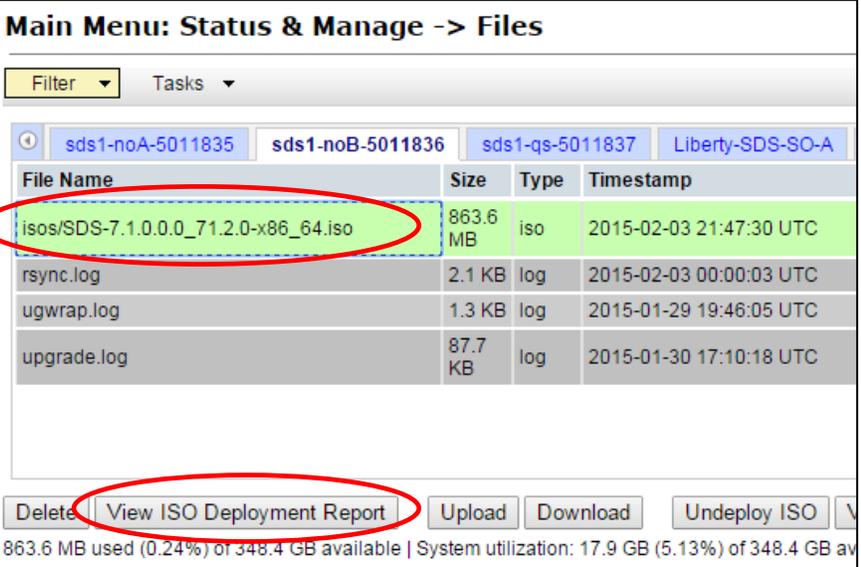
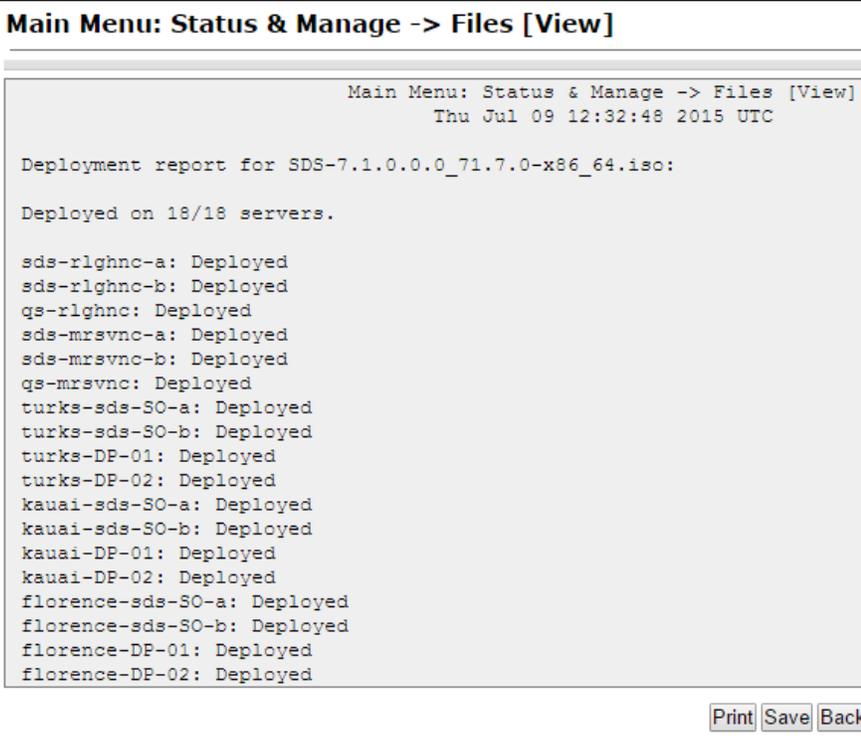


- If source release is **SDS 5.0.x**, then **SKIP** to **Step 8** of this procedure.
- If source release is **SDS 7.x**, then continue with **Step 5** of this procedure.

5.	<p>SDS 7.x only</p> <p>Primary SDS NOAM VIP:</p> <p>Deploy ISO file to all SDS servers in the entire topology.</p> <p>1) Using the cursor, select the ISO file uploaded in Step 3 of this procedure.</p> <p>2) Click ‘Deploy ISO’ dialogue button.</p> <p>3) Click ‘OK’ to confirm the ISO deployment.</p>	<p>Main Menu: Status & Manage -> Files</p> <table border="1"> <thead> <tr> <th>File Name</th> <th>Size</th> <th>Type</th> <th>Timestamp</th> </tr> </thead> <tbody> <tr> <td>rsync.log</td> <td>2.1 KB</td> <td>log</td> <td>2015-02-03 00:00:03 UTC</td> </tr> <tr> <td>SDS-7.1.0.0.0_71.2.0-x86_64.iso</td> <td>863.6 MB</td> <td>iso</td> <td>2015-02-03 21:28:28 UTC</td> </tr> <tr> <td>ugwrap.log</td> <td>1.3 KB</td> <td>log</td> <td>2015-01-29 19:46:05 UTC</td> </tr> <tr> <td>upgrade.log</td> <td>87.7 KB</td> <td>log</td> <td>2015-01-30 17:10:18 UTC</td> </tr> </tbody> </table> <p>Buttons: Delete, View ISO Deployment Report, Upload, Download, Deploy ISO</p> <p>863.6 MB used (0.24%) of 348.4 GB available System utilization: 17.9 GB (5.13%) of 348.4 GB available.</p> <p>The page at https://10.240.241.66 says:</p> <p>Are you sure you want to deploy SDS-7.1.0.0.0_71.2.0-x86_64.iso?</p> <p>Buttons: OK, Cancel</p>	File Name	Size	Type	Timestamp	rsync.log	2.1 KB	log	2015-02-03 00:00:03 UTC	SDS-7.1.0.0.0_71.2.0-x86_64.iso	863.6 MB	iso	2015-02-03 21:28:28 UTC	ugwrap.log	1.3 KB	log	2015-01-29 19:46:05 UTC	upgrade.log	87.7 KB	log	2015-01-30 17:10:18 UTC
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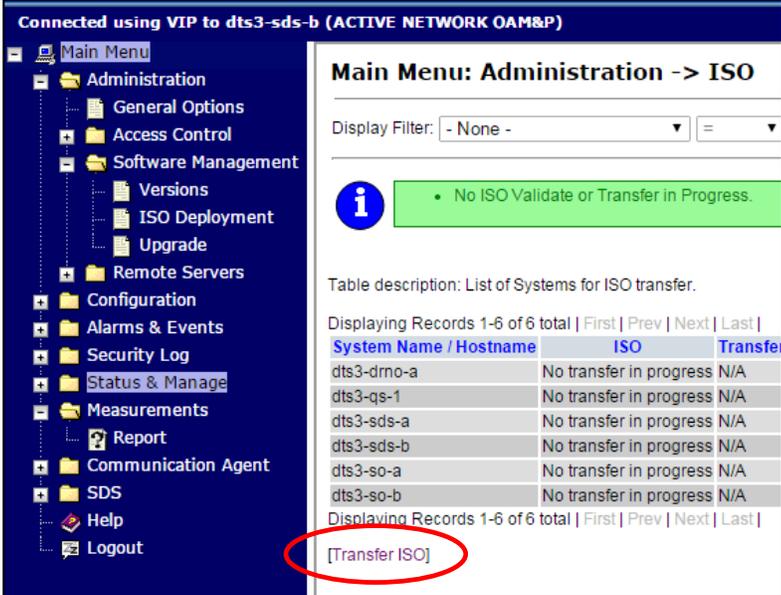
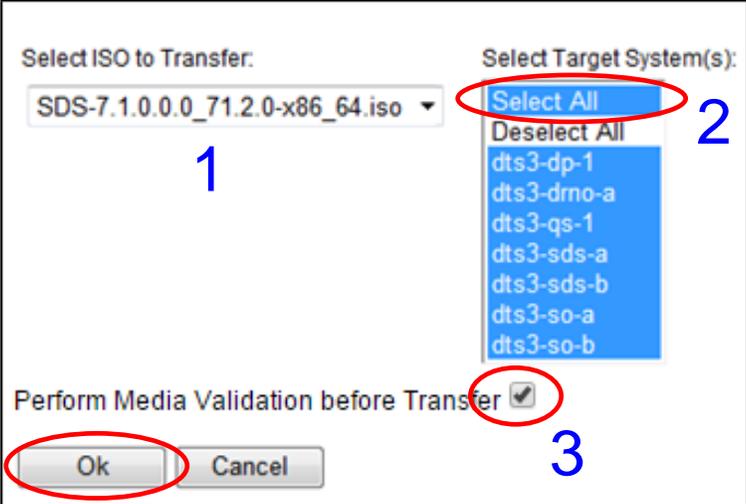
SDS Software Upgrade Guide

Procedure 2: ISO Administration

Step	Procedure	Result																				
<p>6.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>Monitor the ISO deployment status.</p> <p>1) Using the cursor, select the ISO file uploaded in Step 3 of this procedure.</p> <p>2) Click the “View ISO Deployment Report” dialogue button.</p>	 <p>Main Menu: Status & Manage -> Files</p> <p>Filter Tasks</p> <p>sds1-noA-5011835 sds1-noB-5011836 sds1-qs-5011837 Liberty-SDS-SO-A</p> <table border="1"> <thead> <tr> <th>File Name</th> <th>Size</th> <th>Type</th> <th>Timestamp</th> </tr> </thead> <tbody> <tr> <td>isos/SDS-7.1.0.0.0_71.2.0-x86_64.iso</td> <td>863.6 MB</td> <td>iso</td> <td>2015-02-03 21:47:30 UTC</td> </tr> <tr> <td>rsync.log</td> <td>2.1 KB</td> <td>log</td> <td>2015-02-03 00:00:03 UTC</td> </tr> <tr> <td>ugwrap.log</td> <td>1.3 KB</td> <td>log</td> <td>2015-01-29 19:46:05 UTC</td> </tr> <tr> <td>upgrade.log</td> <td>87.7 KB</td> <td>log</td> <td>2015-01-30 17:10:18 UTC</td> </tr> </tbody> </table> <p>Delete View ISO Deployment Report Upload Download Undeploy ISO</p> <p>863.6 MB used (0.24%) of 348.4 GB available System utilization: 17.9 GB (5.13%) of 348.4 GB av</p>	File Name	Size	Type	Timestamp	isos/SDS-7.1.0.0.0_71.2.0-x86_64.iso	863.6 MB	iso	2015-02-03 21:47:30 UTC	rsync.log	2.1 KB	log	2015-02-03 00:00:03 UTC	ugwrap.log	1.3 KB	log	2015-01-29 19:46:05 UTC	upgrade.log	87.7 KB	log	2015-01-30 17:10:18 UTC
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<p>7.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>The user is presented with the ISO Deployment Report indicating the current status of deployment to all servers in the topology.</p> <p>Refresh the report by clicking the “Back” dialogue button and repeating Step 6 of this procedure until the ISO has been “Deployed” to all servers in the topology.</p> <p>NOTE: This completes the ISO Administration procedures for source release 7.x, SKIP the remaining steps of this procedure and exit at this time.</p>	 <p>Main Menu: Status & Manage -> Files [View]</p> <p>Main Menu: Status & Manage -> Files [View] Thu Jul 09 12:32:48 2015 UTC</p> <p>Deployment report for SDS-7.1.0.0.0_71.7.0-x86_64.iso:</p> <p>Deployed on 18/18 servers.</p> <pre>sds-rlghnc-a: Deployed sds-rlghnc-b: Deployed qs-rlghnc: Deployed sds-mrsvnc-a: Deployed sds-mrsvnc-b: Deployed qs-mrsvnc: Deployed turks-sds-SO-a: Deployed turks-sds-SO-b: Deployed turks-DP-01: Deployed turks-DP-02: Deployed kauai-sds-SO-a: Deployed kauai-sds-SO-b: Deployed kauai-DP-01: Deployed kauai-DP-02: Deployed florence-sds-SO-a: Deployed florence-sds-SO-b: Deployed florence-DP-01: Deployed florence-DP-02: Deployed</pre> <p>Print Save Back</p>																				
<p>THIS PROCEDURE HAS BEEN COMPLETED (SDS 7.x Source)</p>																						

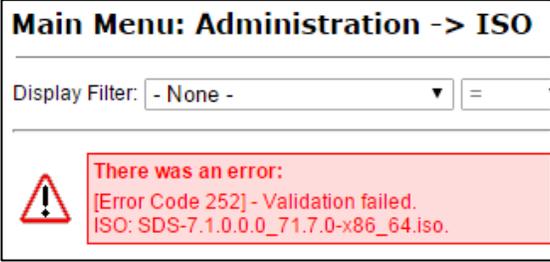
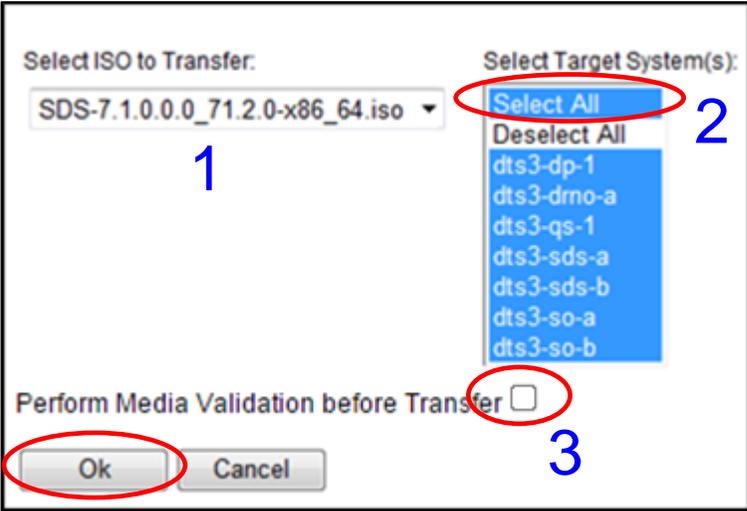
SDS Software Upgrade Guide

Procedure 2: ISO Administration

Step	Procedure	Result																					
<p>8.</p> <p><input type="checkbox"/></p>	<p>SDS 5.0 only</p> <p>Primary SDS NOAM VIP:</p> <p>Upload ISO file to the Standby SDS server.</p>	<ul style="list-style-type: none"> Repeat Steps 2 - 4 of this procedure to upload ISO file to the “Standby” Primary SDS NOAM server. 																					
<p>9.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>1) Select...</p> <p>Main Menu → Administration → Software Management → ISO Deployment</p> <p>2) Click on the [Transfer ISO] link located in the bottom left quadrant of the right panel.</p>	 <p>Connected using VIP to dts3-sds-b (ACTIVE NETWORK OAM&P)</p> <p>Main Menu: Administration -> ISO</p> <p>Display Filter: - None -</p> <p>No ISO Validate or Transfer in Progress.</p> <p>Table description: List of Systems for ISO transfer.</p> <p>Displaying Records 1-6 of 6 total First Prev Next Last </p> <table border="1"> <thead> <tr> <th>System Name / Hostname</th> <th>ISO</th> <th>Transfer</th> </tr> </thead> <tbody> <tr> <td>dts3-dmo-a</td> <td>No transfer in progress</td> <td>N/A</td> </tr> <tr> <td>dts3-qs-1</td> <td>No transfer in progress</td> <td>N/A</td> </tr> <tr> <td>dts3-sds-a</td> <td>No transfer in progress</td> <td>N/A</td> </tr> <tr> <td>dts3-sds-b</td> <td>No transfer in progress</td> <td>N/A</td> </tr> <tr> <td>dts3-so-a</td> <td>No transfer in progress</td> <td>N/A</td> </tr> <tr> <td>dts3-so-b</td> <td>No transfer in progress</td> <td>N/A</td> </tr> </tbody> </table> <p>[Transfer ISO]</p>	System Name / Hostname	ISO	Transfer	dts3-dmo-a	No transfer in progress	N/A	dts3-qs-1	No transfer in progress	N/A	dts3-sds-a	No transfer in progress	N/A	dts3-sds-b	No transfer in progress	N/A	dts3-so-a	No transfer in progress	N/A	dts3-so-b	No transfer in progress	N/A
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dts3-so-a	No transfer in progress	N/A																					
dts3-so-b	No transfer in progress	N/A																					
<p>10.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>The user is presented with the [Transfer ISO] screen.</p> <p>1) Using the pull-down menu, select the ISO file uploaded in Step 3 of this procedure.</p> <p>2) Click “Select All” or hold the [CTRL] key to multi-select individual servers to be upgraded.</p> <p>3) Click on the “Perform Media Validation before transfer” check box.</p> <p>4) Click on the “OK” dialogue button.</p>	 <p>Select ISO to Transfer: SDS-7.1.0.0.0_71.2.0-x86_64.iso</p> <p>Select Target System(s):</p> <ul style="list-style-type: none"> Select All Deselect All dts3-dp-1 dts3-dmo-a dts3-qs-1 dts3-sds-a dts3-sds-b dts3-so-a dts3-so-b <p>Perform Media Validation before Transfer <input checked="" type="checkbox"/></p> <p>Ok Cancel</p>																					

SDS Software Upgrade Guide

Procedure 2: ISO Administration

Step	Procedure	Result
<p>11.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>If “[Error Code 252] - Validation failed.” was received, then execute Appendix G (Manually Performing ISO Validation) and then continue with Step 12.</p> <p>If no error was received, SKIP to Step 13.</p>	
<p>12.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>The user is presented with the [Transfer ISO] screen.</p> <ol style="list-style-type: none"> 1) Using the pull-down menu, select the ISO file uploaded in Step 3 of this procedure. 2) Click “Select All” or hold the [CTRL] key to multi-select individual servers to be upgraded. 3) DO NOT click on the “Perform Media Validation before transfer” check box. 4) Click on the “Ok” dialogue button. 	

SDS Software Upgrade Guide

Procedure 2: ISO Administration

Step	Procedure	Result																								
<p>13.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>1) The user is presented with the ISO Administration screen.</p> <p>2) The progress of the individual file transfers may be monitored by periodically clicking on the [Click to Refresh] link in the information banner message.</p> <p>3) Continue to monitor the file transfer progress until a “Transfer Status” of “Complete” is received for all selected servers.</p>	<div style="border: 1px solid black; padding: 10px;">  <ul style="list-style-type: none"> • Transfer ISO In Progress...[Click to Refresh] ISO: SDS-7.1.0.0.0_71.2.0-x86_64.iso <p>4 of 7 Transfers Successful. 0 of 7 Transfers Failed.</p> </div> <p>Table description: List of Systems for ISO transfer.</p> <p>Displaying Records 1-7 of 7 total First Prev Next Last </p> <table border="1"> <thead> <tr> <th>System Name / Hostname</th> <th>ISO</th> <th>Transfer Status</th> </tr> </thead> <tbody> <tr> <td>dts3-dp-1</td> <td>SDS-7.1.0.0.0_71.2.0-x86_64.iso</td> <td>In Progress</td> </tr> <tr> <td>dts3-drno-a</td> <td>SDS-7.1.0.0.0_71.2.0-x86_64.iso</td> <td>Complete</td> </tr> <tr> <td>dts3-qs-1</td> <td>SDS-7.1.0.0.0_71.2.0-x86_64.iso</td> <td>Complete</td> </tr> <tr> <td>dts3-sds-a</td> <td>SDS-7.1.0.0.0_71.2.0-x86_64.iso</td> <td>Complete</td> </tr> <tr> <td>dts3-sds-b</td> <td>SDS-7.1.0.0.0_71.2.0-x86_64.iso</td> <td>Complete</td> </tr> <tr> <td>dts3-so-a</td> <td>SDS-7.1.0.0.0_71.2.0-x86_64.iso</td> <td>In Progress</td> </tr> <tr> <td>dts3-so-b</td> <td>SDS-7.1.0.0.0_71.2.0-x86_64.iso</td> <td>In Progress</td> </tr> </tbody> </table> <p>Displaying Records 1-7 of 7 total First Prev Next Last </p>	System Name / Hostname	ISO	Transfer Status	dts3-dp-1	SDS-7.1.0.0.0_71.2.0-x86_64.iso	In Progress	dts3-drno-a	SDS-7.1.0.0.0_71.2.0-x86_64.iso	Complete	dts3-qs-1	SDS-7.1.0.0.0_71.2.0-x86_64.iso	Complete	dts3-sds-a	SDS-7.1.0.0.0_71.2.0-x86_64.iso	Complete	dts3-sds-b	SDS-7.1.0.0.0_71.2.0-x86_64.iso	Complete	dts3-so-a	SDS-7.1.0.0.0_71.2.0-x86_64.iso	In Progress	dts3-so-b	SDS-7.1.0.0.0_71.2.0-x86_64.iso	In Progress
System Name / Hostname	ISO	Transfer Status																								
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dts3-drno-a	SDS-7.1.0.0.0_71.2.0-x86_64.iso	Complete																								
dts3-qs-1	SDS-7.1.0.0.0_71.2.0-x86_64.iso	Complete																								
dts3-sds-a	SDS-7.1.0.0.0_71.2.0-x86_64.iso	Complete																								
dts3-sds-b	SDS-7.1.0.0.0_71.2.0-x86_64.iso	Complete																								
dts3-so-a	SDS-7.1.0.0.0_71.2.0-x86_64.iso	In Progress																								
dts3-so-b	SDS-7.1.0.0.0_71.2.0-x86_64.iso	In Progress																								
<p>THIS PROCEDURE HAS BEEN COMPLETED (SDS 5.0 Source)</p>																										

5.7 Perform Health Check (Post ISO Administration)

This procedure is part of Software Upgrade Preparation and is used to determine the health and status of the entire SDS 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 a maintenance window.

- Execute SDS Health Check procedures as specified in **Appendix B**.

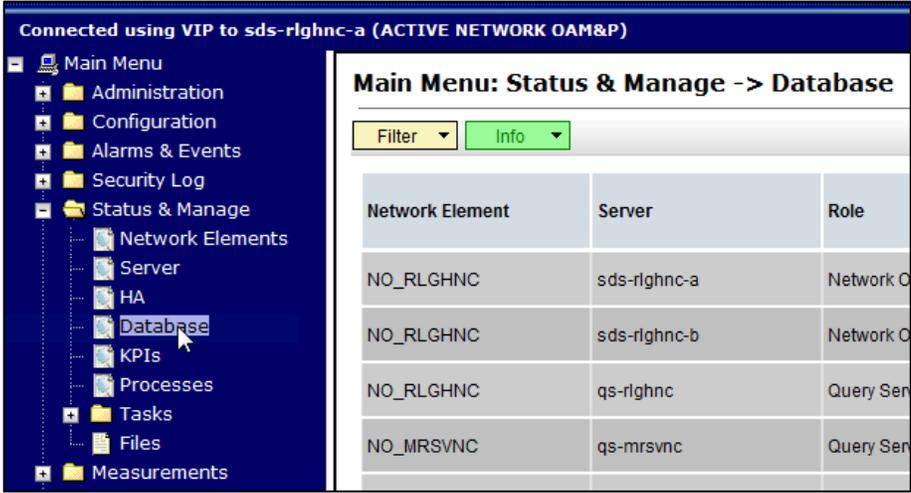
5.8 Full Database Backup (PROV & COMCOL ENV for All Servers)

This procedure is part of Software Upgrade Preparation and is used to conduct a full backup of the COMCOL run environment on every server, to be used in the event of a backout/rollback of the new software release.

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

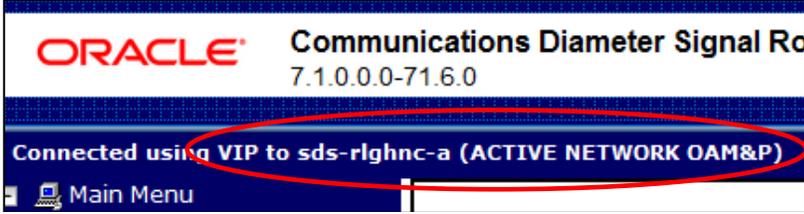
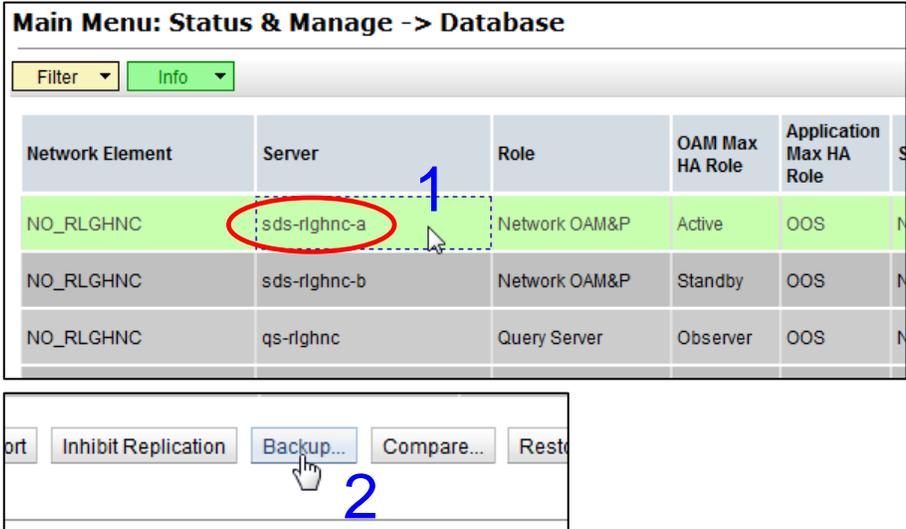
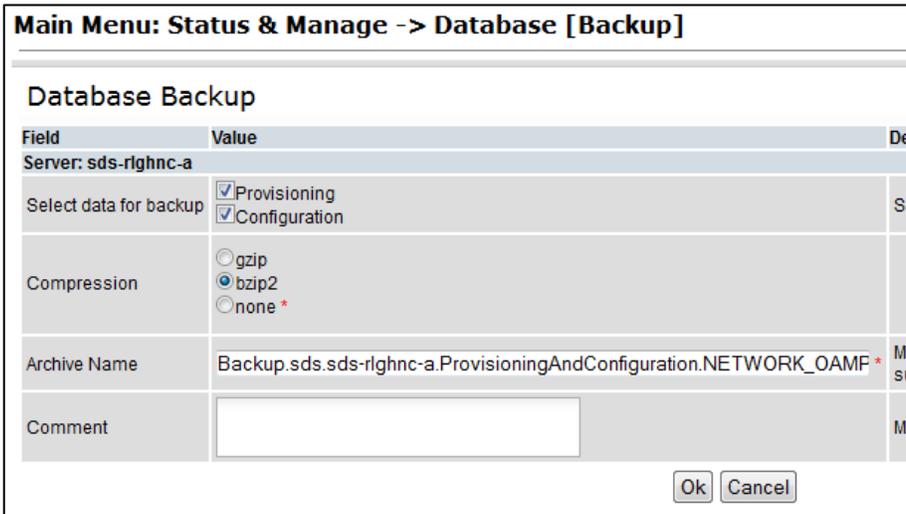
SHOULD ANY STEP IN THIS PROCEDURE FAIL, IT IS RECOMMENDED TO STOP AND CONTACT MOS FOR ASSISTANCE BEFORE CONTINUING!

Procedure 3: Full Database Backup (PROV & COMCOL ENV for All Servers)

Step	Procedure	Result															
<p>1.</p> <p><input type="checkbox"/></p>	<p>Using VIP address, access the Primary SDS NOAM GUI.</p>	<ul style="list-style-type: none"> Use the VIP address to access the Primary SDS NOAM GUI as specified in Appendix A. 															
<p>2.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP: Select...</p> <p>Main Menu → Status & Manage → Database</p> <p>...as shown on the right.</p>	 <table border="1" style="margin-top: 10px;"> <caption>Main Menu: Status & Manage -> Database</caption> <thead> <tr> <th>Network Element</th> <th>Server</th> <th>Role</th> </tr> </thead> <tbody> <tr> <td>NO_RLGHNC</td> <td>sds-rlghnc-a</td> <td>Network O</td> </tr> <tr> <td>NO_RLGHNC</td> <td>sds-rlghnc-b</td> <td>Network O</td> </tr> <tr> <td>NO_RLGHNC</td> <td>qs-rlghnc</td> <td>Query Sen</td> </tr> <tr> <td>NO_MRSVNC</td> <td>qs-mrsvnc</td> <td>Query Sen</td> </tr> </tbody> </table>	Network Element	Server	Role	NO_RLGHNC	sds-rlghnc-a	Network O	NO_RLGHNC	sds-rlghnc-b	Network O	NO_RLGHNC	qs-rlghnc	Query Sen	NO_MRSVNC	qs-mrsvnc	Query Sen
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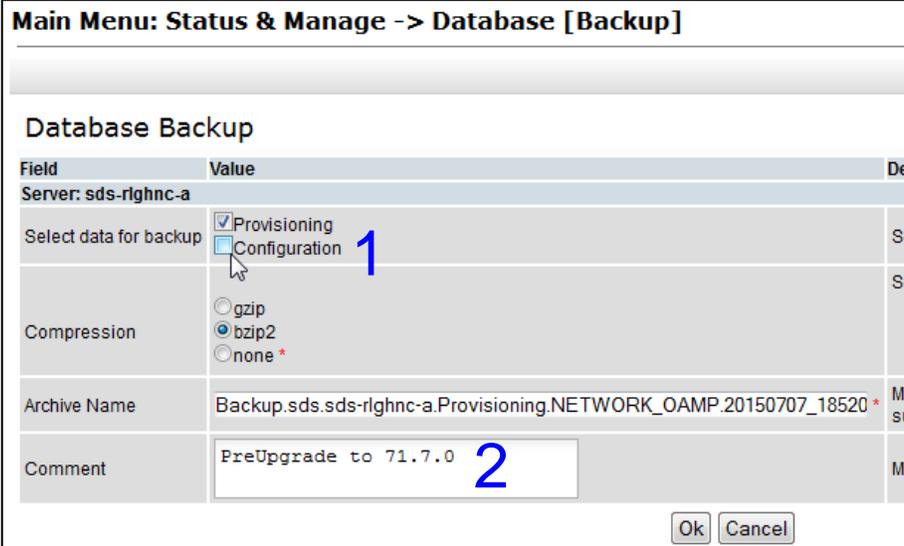
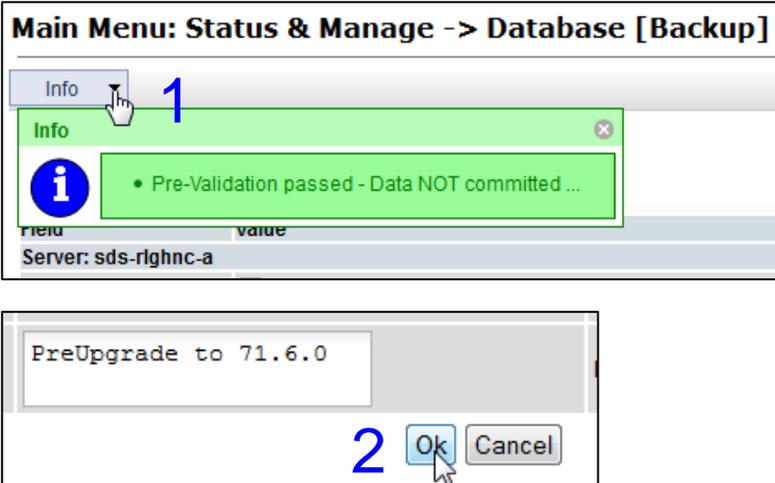
SDS Software Upgrade Guide

Procedure 3: Full Database Backup (PROV & COMCOL ENV for All Servers)

Step	Procedure	Result
3. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Verify the name of the Primary Active Network OAM&P SDS server from the GUI banner.</p>	
4. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>1) Using the cursor, select the Primary Active Network OAM&P SDS server on the [Status & Manage → Database] screen.</p> <p>2) Then click the “Backup...” dialogue button in the bottom of the right panel.</p>	
5. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>The user will be present with the backup form.</p>	

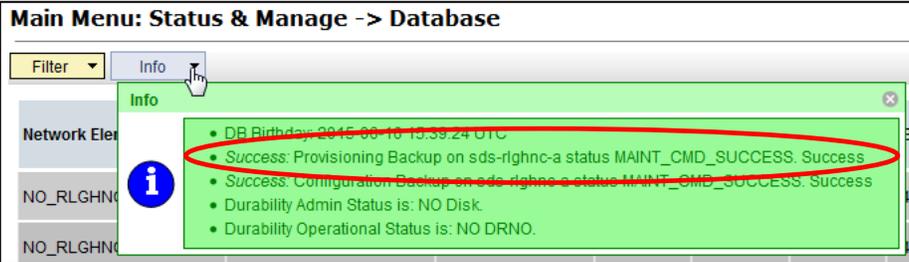
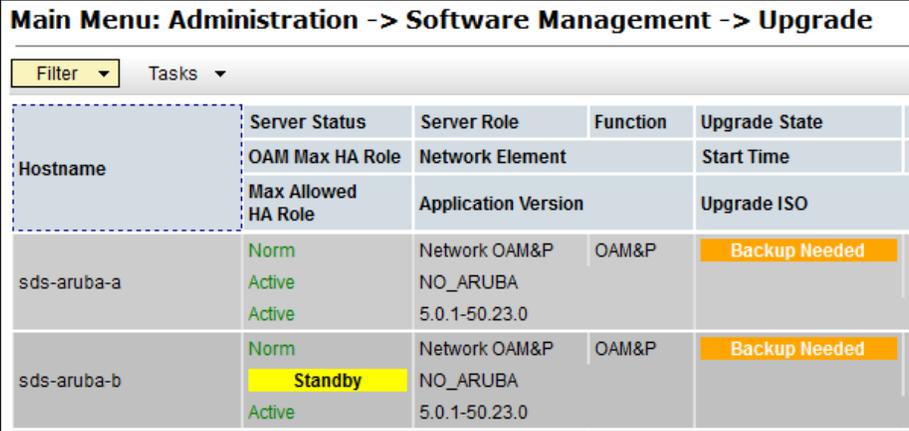
SDS Software Upgrade Guide

Procedure 3: Full Database Backup (PROV & COMCOL ENV for All Servers)

Step	Procedure	Result
<p>6.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>1) Uncheck the “Configuration” checkbox so that only Provisioning data is backed up.</p> <p>2) Enter a comment (<i>required</i>) and then left click the cursor outside the comment field.</p>	
<p>7.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>1) Click the “Info” tab to verify that the changes have passed Pre-Validation.</p> <p>2) Click “Ok” dialogue button in the bottom of the right panel.</p>	

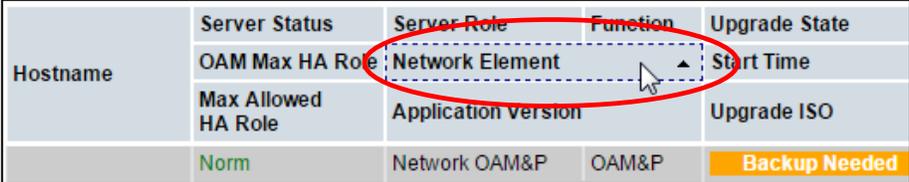
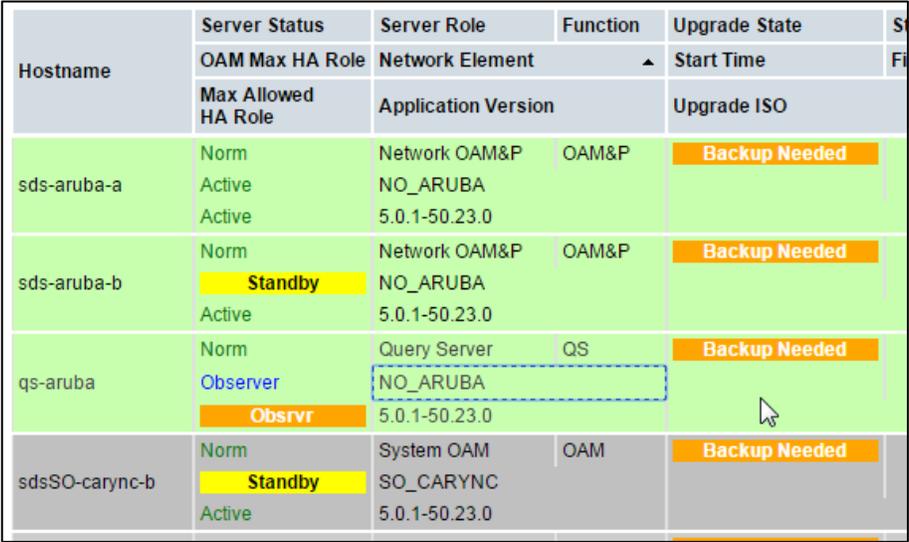
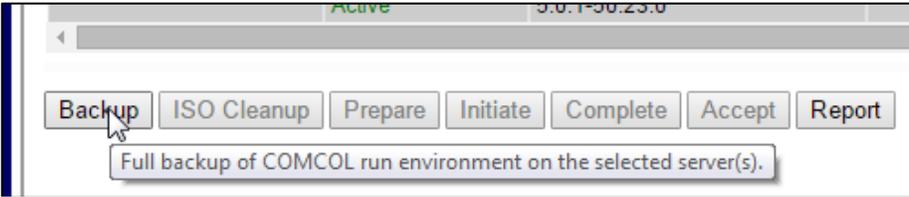
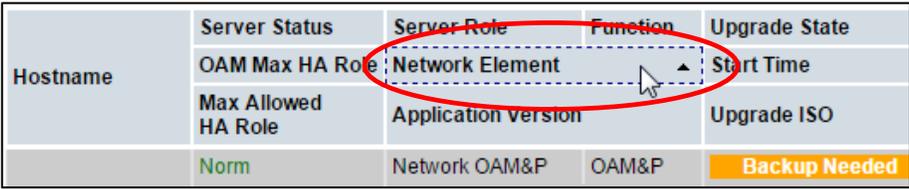
SDS Software Upgrade Guide

Procedure 3: Full Database Backup (PROV & COMCOL ENV for All Servers)

Step	Procedure	Result															
<p>8.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>Wait for the screen to refresh (≈ 1-2 minutes) then click the “Info” tab to verify that the Provisioning Backup shows a status of MAINT_CMD_SUCCESS.</p> <p>If a status of MAINT_IN_PROGRESS is received, then periodically refresh the Info message by reselecting...</p> <p>Main Menu → Status & Manage → Database</p> <p>...then click the “Info” tab again.</p> <p>NOTE: <i>This step completes the backup of the SDS Provisioning Database.</i></p> <p>Note: Depending on the size of the SDS Provisioning database, the backup could take a couple of hours to complete.</p>																
<div style="display: flex; align-items: center;">  <ul style="list-style-type: none"> • If source release is SDS 7.x, then SKIP to Step 16 of this procedure. • If source release is SDS 5.0, then continue with Step 9 of this procedure. </div>																	
<p>9.</p> <p><input type="checkbox"/></p>	<p>SDS 5.0 only</p> <p>Primary SDS NOAM VIP:</p> <p>1) Select...</p> <p>Main Menu → Administration → Software Management → Upgrade</p>	 <table border="1"> <thead> <tr> <th>Hostname</th> <th>Server Status</th> <th>Server Role</th> <th>Function</th> <th>Upgrade State</th> </tr> </thead> <tbody> <tr> <td>sds-aruba-a</td> <td>Active</td> <td>Network OAM&P</td> <td>OAM&P</td> <td>Backup Needed</td> </tr> <tr> <td>sds-aruba-b</td> <td>Standby</td> <td>Network OAM&P</td> <td>OAM&P</td> <td>Backup Needed</td> </tr> </tbody> </table>	Hostname	Server Status	Server Role	Function	Upgrade State	sds-aruba-a	Active	Network OAM&P	OAM&P	Backup Needed	sds-aruba-b	Standby	Network OAM&P	OAM&P	Backup Needed
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SDS Software Upgrade Guide

Procedure 3: Full Database Backup (PROV & COMCOL ENV for All Servers)

Step	Procedure	Result																																			
10. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Using the cursor, click the “Network Element” heading in the right panel to sort the servers by NE.</p>	 <table border="1"> <thead> <tr> <th>Hostname</th> <th>Server Status</th> <th>Server Role</th> <th>Function</th> <th>Upgrade State</th> </tr> </thead> <tbody> <tr> <td></td> <td>OAM Max HA Role</td> <td>Network Element</td> <td>▲</td> <td>Start Time</td> </tr> <tr> <td></td> <td>Max Allowed HA Role</td> <td>Application Version</td> <td></td> <td>Upgrade ISO</td> </tr> <tr> <td></td> <td>Norm</td> <td>Network OAM&P</td> <td>OAM&P</td> <td>Backup Needed</td> </tr> </tbody> </table>	Hostname	Server Status	Server Role	Function	Upgrade State		OAM Max HA Role	Network Element	▲	Start Time		Max Allowed HA Role	Application Version		Upgrade ISO		Norm	Network OAM&P	OAM&P	Backup Needed															
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	Norm	Network OAM&P	OAM&P	Backup Needed																																	
11. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>1) While holding the [CTRL] key, multi-select the rows containing the hostnames of the servers in the Network Element (NE) to be upgraded.</p> <p>2) Verify that the Upgrade State shows “Backup Needed” for each server.</p>	 <table border="1"> <thead> <tr> <th>Hostname</th> <th>Server Status</th> <th>Server Role</th> <th>Function</th> <th>Upgrade State</th> </tr> </thead> <tbody> <tr> <td></td> <td>OAM Max HA Role</td> <td>Network Element</td> <td>▲</td> <td>Start Time</td> </tr> <tr> <td></td> <td>Max Allowed HA Role</td> <td>Application Version</td> <td></td> <td>Upgrade ISO</td> </tr> <tr> <td>sds-aruba-a</td> <td>Norm Active</td> <td>Network OAM&P</td> <td>OAM&P</td> <td>Backup Needed</td> </tr> <tr> <td>sds-aruba-b</td> <td>Norm Standby Active</td> <td>Network OAM&P</td> <td>OAM&P</td> <td>Backup Needed</td> </tr> <tr> <td>qs-aruba</td> <td>Norm Observer</td> <td>Query Server</td> <td>QS</td> <td>Backup Needed</td> </tr> <tr> <td>sdsSO-carync-b</td> <td>Norm Standby Active</td> <td>System OAM</td> <td>OAM</td> <td>Backup Needed</td> </tr> </tbody> </table>	Hostname	Server Status	Server Role	Function	Upgrade State		OAM Max HA Role	Network Element	▲	Start Time		Max Allowed HA Role	Application Version		Upgrade ISO	sds-aruba-a	Norm Active	Network OAM&P	OAM&P	Backup Needed	sds-aruba-b	Norm Standby Active	Network OAM&P	OAM&P	Backup Needed	qs-aruba	Norm Observer	Query Server	QS	Backup Needed	sdsSO-carync-b	Norm Standby Active	System OAM	OAM	Backup Needed
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12. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Click the “Backup” dialogue button located across the bottom left of the right panel.</p>	 <p>Backup ISO Cleanup Prepare Initiate Complete Accept Report</p> <p>Full backup of COMCOL run environment on the selected server(s).</p>																																			
13. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>1) Wait for the screen to refresh and then once again, click the “Network Element” heading in the right panel to sort the servers by NE.</p> <p>2) Use the vertical scroll bar (<i>if necessary</i>) to locate the rows containing the hostnames of the servers backed up in Step 11 of this procedure.</p>	 <table border="1"> <thead> <tr> <th>Hostname</th> <th>Server Status</th> <th>Server Role</th> <th>Function</th> <th>Upgrade State</th> </tr> </thead> <tbody> <tr> <td></td> <td>OAM Max HA Role</td> <td>Network Element</td> <td>▲</td> <td>Start Time</td> </tr> <tr> <td></td> <td>Max Allowed HA Role</td> <td>Application Version</td> <td></td> <td>Upgrade ISO</td> </tr> <tr> <td></td> <td>Norm</td> <td>Network OAM&P</td> <td>OAM&P</td> <td>Backup Needed</td> </tr> </tbody> </table>	Hostname	Server Status	Server Role	Function	Upgrade State		OAM Max HA Role	Network Element	▲	Start Time		Max Allowed HA Role	Application Version		Upgrade ISO		Norm	Network OAM&P	OAM&P	Backup Needed															
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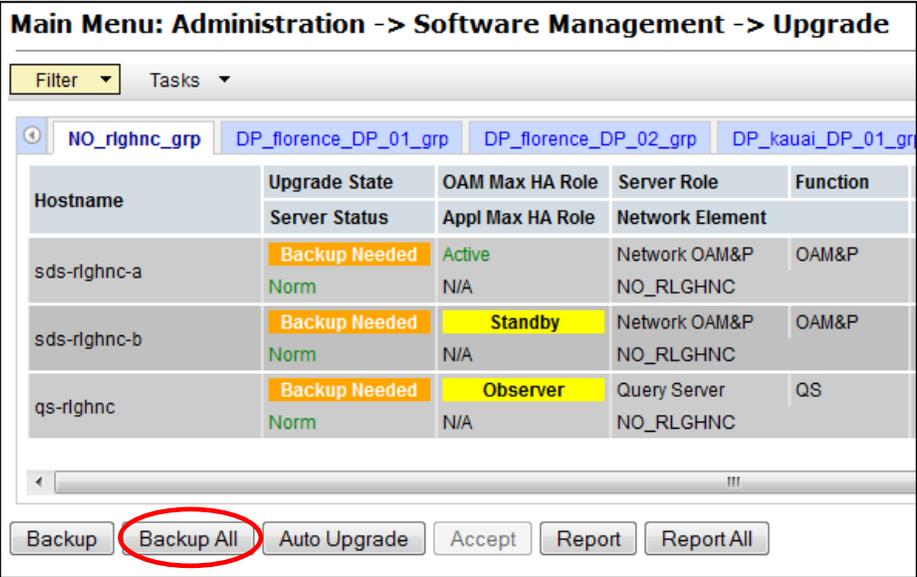
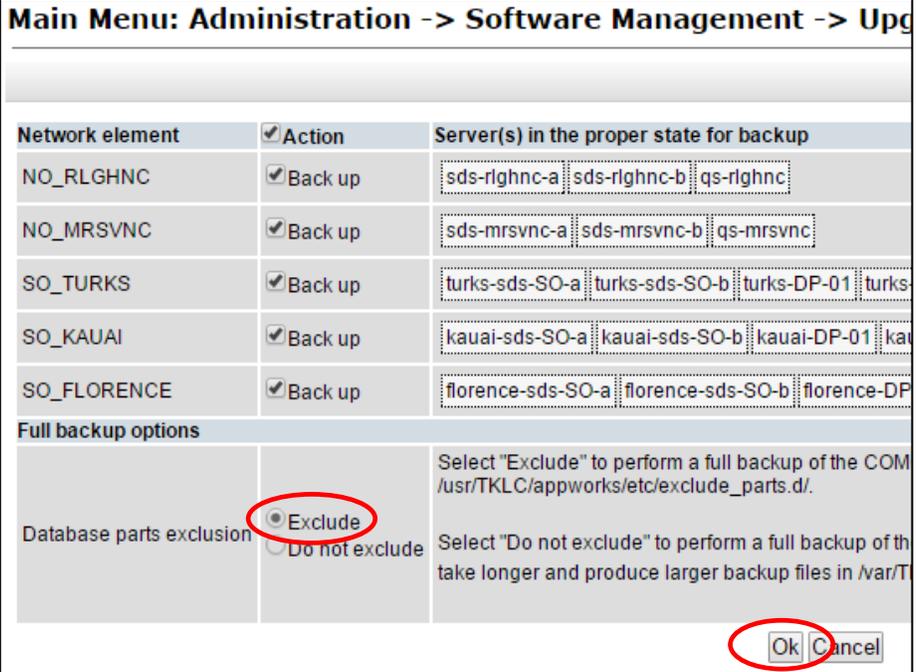
SDS Software Upgrade Guide

Procedure 3: Full Database Backup (PROV & COMCOL ENV for All Servers)

Step	Procedure	Result																																										
<p>14.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>The screen will auto-refresh at this point.</p> <p>Monitor all servers backed up in Step 11 of this procedure until the “Upgrade State” changes from “Backup Needed” to “Not Ready”.</p>	<table border="1"> <thead> <tr> <th>Hostname</th> <th>Server Status</th> <th>Server Role</th> <th>Function</th> <th>Upgrade State</th> <th>St</th> </tr> </thead> <tbody> <tr> <td></td> <td>OAM Max HA Role</td> <td colspan="2">Network Element ▲</td> <td>Start Time</td> <td>Fi</td> </tr> <tr> <td></td> <td>Max Allowed HA Role</td> <td colspan="2">Application Version</td> <td colspan="2">Upgrade ISO</td> </tr> <tr> <td>sds-aruba-a</td> <td>Norm Active Active</td> <td>Network OAM&P NO_ARUBA 5.0.1-50.23.0</td> <td>OAM&P</td> <td colspan="2">Not Ready</td> </tr> <tr> <td>sds-aruba-b</td> <td>Norm Standby Active</td> <td>Network OAM&P NO_ARUBA 5.0.1-50.23.0</td> <td>OAM&P</td> <td colspan="2">Not Ready</td> </tr> <tr> <td>qs-aruba</td> <td>Norm Observer Obsrvr</td> <td>Query Server NO_ARUBA 5.0.1-50.23.0</td> <td>QS</td> <td colspan="2">Not Ready</td> </tr> <tr> <td>sdsSO-carync-b</td> <td>Norm Standby Active</td> <td>System OAM SO_CARYNC 5.0.1-50.23.0</td> <td>OAM</td> <td colspan="2">Backup Needed</td> </tr> </tbody> </table>	Hostname	Server Status	Server Role	Function	Upgrade State	St		OAM Max HA Role	Network Element ▲		Start Time	Fi		Max Allowed HA Role	Application Version		Upgrade ISO		sds-aruba-a	Norm Active Active	Network OAM&P NO_ARUBA 5.0.1-50.23.0	OAM&P	Not Ready		sds-aruba-b	Norm Standby Active	Network OAM&P NO_ARUBA 5.0.1-50.23.0	OAM&P	Not Ready		qs-aruba	Norm Observer Obsrvr	Query Server NO_ARUBA 5.0.1-50.23.0	QS	Not Ready		sdsSO-carync-b	Norm Standby Active	System OAM SO_CARYNC 5.0.1-50.23.0	OAM	Backup Needed	
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<p>15.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Execute COMCOL environment backups for the next NE</p> <p>NOTE: This completes the COMCOL environment Backup procedures for source release 5.0, SKIP the remaining steps of this procedure and exit at this time.</p>	<ul style="list-style-type: none"> Repeat Steps 11 - 14 of this procedure (<i>one Network Element at a time</i>), until all servers in the topology display an “Upgrade State” of “Not Ready”. 																																										
<p>THIS PROCEDURE HAS BEEN COMPLETED (SDS 5.0 Source)</p>																																												

SDS Software Upgrade Guide

Procedure 3: Full Database Backup (PROV & COMCOL ENV for All Servers)

Step	Procedure	Result																									
<p>16.</p> <p><input type="checkbox"/></p>	<p>SDS 7.1 and later only</p> <p>Primary SDS NOAM VIP:</p> <p>1) Select...</p> <p>Main Menu → Administration → Software Management → Upgrade</p> <p>The server “Upgrade State” will show “Backup Needed” at this point.</p> <p>2) In the bottom of the right panel, click the “Backup All” button.</p>	 <p>Main Menu: Administration -> Software Management -> Upgrade</p> <p>Filter Tasks</p> <p>NO_rlghnc_grp DP_florence_DP_01_grp DP_florence_DP_02_grp DP_kauai_DP_01_gr</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Upgrade State</th> <th>OAM Max HA Role</th> <th>Server Role</th> <th>Function</th> </tr> <tr> <th></th> <th>Server Status</th> <th>Appl Max HA Role</th> <th>Network Element</th> <th></th> </tr> </thead> <tbody> <tr> <td>sds-rlghnc-a</td> <td>Backup Needed Norm</td> <td>Active N/A</td> <td>Network OAM&P NO_RLGHNC</td> <td>OAM&P</td> </tr> <tr> <td>sds-rlghnc-b</td> <td>Backup Needed Norm</td> <td>Standby N/A</td> <td>Network OAM&P NO_RLGHNC</td> <td>OAM&P</td> </tr> <tr> <td>qs-rlghnc</td> <td>Backup Needed Norm</td> <td>Observer N/A</td> <td>Query Server NO_RLGHNC</td> <td>QS</td> </tr> </tbody> </table> <p>Backup Backup All Auto Upgrade Accept Report Report All</p>	Hostname	Upgrade State	OAM Max HA Role	Server Role	Function		Server Status	Appl Max HA Role	Network Element		sds-rlghnc-a	Backup Needed Norm	Active N/A	Network OAM&P NO_RLGHNC	OAM&P	sds-rlghnc-b	Backup Needed Norm	Standby N/A	Network OAM&P NO_RLGHNC	OAM&P	qs-rlghnc	Backup Needed Norm	Observer N/A	Query Server NO_RLGHNC	QS
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sds-rlghnc-b	Backup Needed Norm	Standby N/A	Network OAM&P NO_RLGHNC	OAM&P																							
qs-rlghnc	Backup Needed Norm	Observer N/A	Query Server NO_RLGHNC	QS																							
<p>17.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>The user is presented with the Upgrade [Backup All] screen.</p> <p>1) Verify that the “Exclude” radio button is selected.</p> <p>2) Click “Ok” button to begin the backup(s).</p> <p>NOTE: All servers in the topology which are in a state from which upgrade can be initiated will be visible on this screen (i.e. servers in “Forced Standby” or “OOS” will not present).</p>	 <p>Main Menu: Administration -> Software Management -> Upgrade</p> <table border="1"> <thead> <tr> <th>Network element</th> <th>Action</th> <th>Server(s) in the proper state for backup</th> </tr> </thead> <tbody> <tr> <td>NO_RLGHNC</td> <td><input checked="" type="checkbox"/> Back up</td> <td>sds-rlghnc-a sds-rlghnc-b qs-rlghnc</td> </tr> <tr> <td>NO_MRSVNC</td> <td><input checked="" type="checkbox"/> Back up</td> <td>sds-mrsvnc-a sds-mrsvnc-b qs-mrsvnc</td> </tr> <tr> <td>SO_TURKS</td> <td><input checked="" type="checkbox"/> Back up</td> <td>turks-sds-SO-a turks-sds-SO-b turks-DP-01 turks-</td> </tr> <tr> <td>SO_KAUAI</td> <td><input checked="" type="checkbox"/> Back up</td> <td>kauai-sds-SO-a kauai-sds-SO-b kauai-DP-01 kauai-</td> </tr> <tr> <td>SO_FLORENCE</td> <td><input checked="" type="checkbox"/> Back up</td> <td>florence-sds-SO-a florence-sds-SO-b florence-DP-</td> </tr> </tbody> </table> <p>Full backup options</p> <p>Database parts exclusion <input checked="" type="radio"/> Exclude <input type="radio"/> Do not exclude</p> <p>Select "Exclude" to perform a full backup of the COM /usr/TKLC/appworks/etc/exclude_parts.d/.</p> <p>Select "Do not exclude" to perform a full backup of the take longer and produce larger backup files in /var/T</p> <p>Ok Cancel</p>	Network element	Action	Server(s) in the proper state for backup	NO_RLGHNC	<input checked="" type="checkbox"/> Back up	sds-rlghnc-a sds-rlghnc-b qs-rlghnc	NO_MRSVNC	<input checked="" type="checkbox"/> Back up	sds-mrsvnc-a sds-mrsvnc-b qs-mrsvnc	SO_TURKS	<input checked="" type="checkbox"/> Back up	turks-sds-SO-a turks-sds-SO-b turks-DP-01 turks-	SO_KAUAI	<input checked="" type="checkbox"/> Back up	kauai-sds-SO-a kauai-sds-SO-b kauai-DP-01 kauai-	SO_FLORENCE	<input checked="" type="checkbox"/> Back up	florence-sds-SO-a florence-sds-SO-b florence-DP-							
Network element	Action	Server(s) in the proper state for backup																									
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SO_TURKS	<input checked="" type="checkbox"/> Back up	turks-sds-SO-a turks-sds-SO-b turks-DP-01 turks-																									
SO_KAUAI	<input checked="" type="checkbox"/> Back up	kauai-sds-SO-a kauai-sds-SO-b kauai-DP-01 kauai-																									
SO_FLORENCE	<input checked="" type="checkbox"/> Back up	florence-sds-SO-a florence-sds-SO-b florence-DP-																									

SDS Software Upgrade Guide

Procedure 3: Full Database Backup (PROV & COMCOL ENV for All Servers)

Step	Procedure	Result																									
<p>18.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>The user is returned to the Active Primary SDS server tab on the Administration → Software → Upgrade screen where the server “Upgrade State” should now show “Backup in Progress” for all servers on that tab.</p>	<p>Main Menu: Administration -> Software Management -> Upgrade</p> <p>Filter Tasks</p> <p>NO_rlghnc_grp DP_florence_DP_01_grp DP_florence_DP_02_grp DP_kauai_DP_01_g</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Upgrade State</th> <th>OAM Max HA Role</th> <th>Server Role</th> <th>Function</th> </tr> <tr> <th></th> <th>Server Status</th> <th>Appl Max HA Role</th> <th>Network Element</th> <th></th> </tr> </thead> <tbody> <tr> <td>sds-rlghnc-a</td> <td>Backup In Progress Norm</td> <td>Active N/A</td> <td>Network OAM&P NO_RLGHNC</td> <td>OAM&P</td> </tr> <tr> <td>sds-rlghnc-b</td> <td>Backup In Progress Norm</td> <td>Standby N/A</td> <td>Network OAM&P NO_RLGHNC</td> <td>OAM&P</td> </tr> <tr> <td>qs-rlghnc</td> <td>Backup In Progress Norm</td> <td>Observer N/A</td> <td>Query Server NO_RLGHNC</td> <td>QS</td> </tr> </tbody> </table>	Hostname	Upgrade State	OAM Max HA Role	Server Role	Function		Server Status	Appl Max HA Role	Network Element		sds-rlghnc-a	Backup In Progress Norm	Active N/A	Network OAM&P NO_RLGHNC	OAM&P	sds-rlghnc-b	Backup In Progress Norm	Standby N/A	Network OAM&P NO_RLGHNC	OAM&P	qs-rlghnc	Backup In Progress Norm	Observer N/A	Query Server NO_RLGHNC	QS
Hostname	Upgrade State	OAM Max HA Role	Server Role	Function																							
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sds-rlghnc-b	Backup In Progress Norm	Standby N/A	Network OAM&P NO_RLGHNC	OAM&P																							
qs-rlghnc	Backup In Progress Norm	Observer N/A	Query Server NO_RLGHNC	QS																							
<p>19.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>The screen will auto-refresh at this point.</p> <p>Monitor the Backups until the server “Upgrade State” shows “Ready” for all servers on that tab.</p> <p>NOTE: It can take up to 15 minutes for for COMCOL backup to complete.</p>	<p>Main Menu: Administration -> Software Management -> Upgrade</p> <p>Filter Tasks</p> <p>NO_rlghnc_grp DP_florence_DP_01_grp DP_florence_DP_02_grp DP_kauai_DP_01_g</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Upgrade State</th> <th>OAM Max HA Role</th> <th>Server Role</th> <th>Function</th> </tr> <tr> <th></th> <th>Server Status</th> <th>Appl Max HA Role</th> <th>Network Element</th> <th></th> </tr> </thead> <tbody> <tr> <td>sds-rlghnc-a</td> <td>Ready Norm</td> <td>Active N/A</td> <td>Network OAM&P NO_RLGHNC</td> <td>OAM&P</td> </tr> <tr> <td>sds-rlghnc-b</td> <td>Ready Norm</td> <td>Standby N/A</td> <td>Network OAM&P NO_RLGHNC</td> <td>OAM&P</td> </tr> <tr> <td>qs-rlghnc</td> <td>Ready Norm</td> <td>Observer N/A</td> <td>Query Server NO_RLGHNC</td> <td>QS</td> </tr> </tbody> </table>	Hostname	Upgrade State	OAM Max HA Role	Server Role	Function		Server Status	Appl Max HA Role	Network Element		sds-rlghnc-a	Ready Norm	Active N/A	Network OAM&P NO_RLGHNC	OAM&P	sds-rlghnc-b	Ready Norm	Standby N/A	Network OAM&P NO_RLGHNC	OAM&P	qs-rlghnc	Ready Norm	Observer N/A	Query Server NO_RLGHNC	QS
Hostname	Upgrade State	OAM Max HA Role	Server Role	Function																							
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qs-rlghnc	Ready Norm	Observer N/A	Query Server NO_RLGHNC	QS																							

SDS Software Upgrade Guide

Procedure 3: Full Database Backup (PROV & COMCOL ENV for All Servers)

Step	Procedure	Result
<p>20.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>Click on the next tab to the right and monitor the Backups until the server “Upgrade State” shows “Ready” for all servers on that tab.</p> <p>!! IMPORTANT !!</p> <p>Starting with SDS 7.x, the Appl Max HA Role is now displayed in the Administration → Software → Upgrade screen.</p> <p>This state is expected to be OOS for SDS DP servers.</p>	
<p>21.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>Monitor the remaining tabs under the Administration → Software → Upgrade screen until all servers on each tab display a server “Upgrade State” value of “Ready”.</p>	<ul style="list-style-type: none"> Repeat Step 20 of this procedure until all servers in the topology display a server “Upgrade State” value of “Ready”.
<p>THIS PROCEDURE HAS BEEN COMPLETED (SDS 7.x Source)</p>		

6. PRIMARY / DR SDS NOAM UPGRADE EXECUTION

Call **My Oracle Support (MOS)** and inform them of your plans to upgrade this system prior to executing this upgrade. Refer to Appendix N - Accessing My Oracle Support (MOS) for information on contacting **MOS**.

Before upgrading, users must perform the system Health Check in **Appendix B**. This check ensures that the system to be upgraded is in an upgrade-ready state. Performing the system health check determines which alarms are present in the system and if upgrade can proceed with alarms.

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

If there are servers in the system, which are not in a Normal state, these servers should be brought to the Normal or the Application Disabled state before the upgrade process is started. The sequence of upgrade is such that servers providing support services to other servers will be upgraded first.

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

Please read the following notes on this procedure:

If a procedural STEP fails to execute successfully or fails to receive the desired output, **STOP** the procedure. It is recommended to contact **MOS** for assistance before attempting to continue.

Procedure completion times shown are estimates. Times may vary due to differences in database size, user experience, and user preparation.

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 upgrade must mark the provided checkbox.

For procedures which are executed multiple times, a mark can be made below the checkbox (in the same column) for each additional iteration that the step is executed.

Retention of captured data is required as a future support reference if this procedure is executed by someone other than Oracle’s Customer Care Center.

NOTE: *In order to minimize possible impacts due to database schema changes, Primary and DR SDS Network Elements must be upgraded within the same maintenance window.*

6.1 Perform Health Check (Primary/DR NOAM Pre Upgrade)

This procedure is part of Software Upgrade Preparation and is used to determine the health and status of the entire SDS 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 a maintenance window.

Execute SDS Health Check procedures as specified in **Appendix B**.

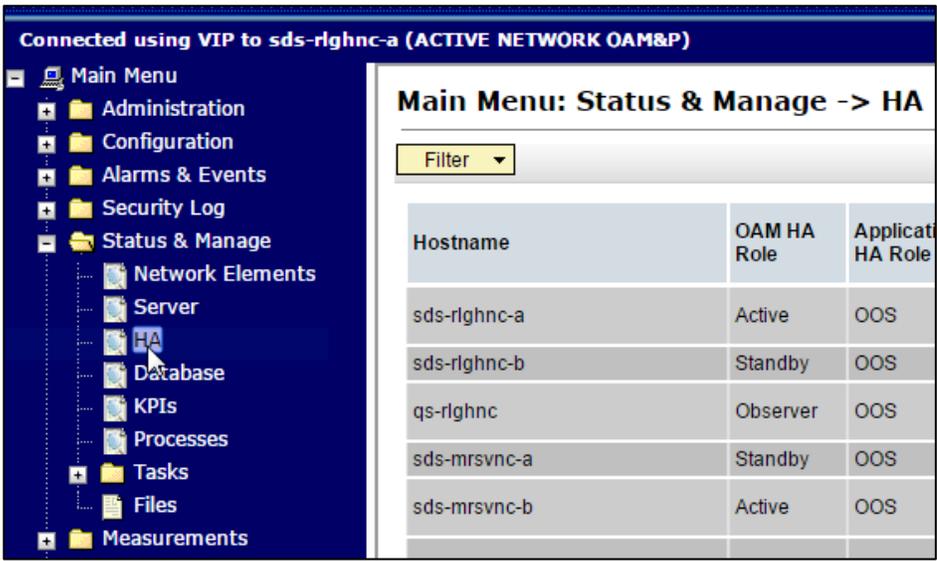
6.2 Upgrade Primary SDS NOAM NE

This procedure is used to upgrade the SDS NOAM servers.

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

SHOULD ANY STEP IN THIS PROCEDURE FAIL, IT IS RECOMMENDED TO STOP AND CONTACT MOS FOR ASSISTANCE BEFORE CONTINUING!

Procedure 4: Upgrade Primary SDS NOAM NE

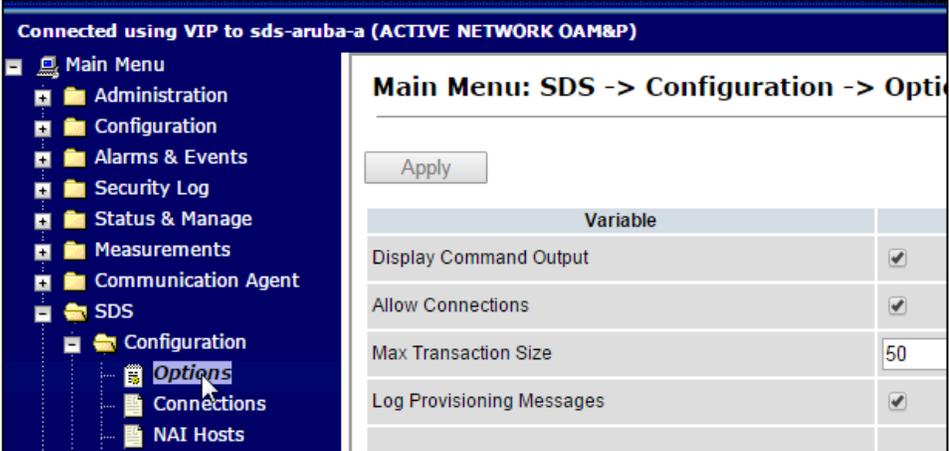
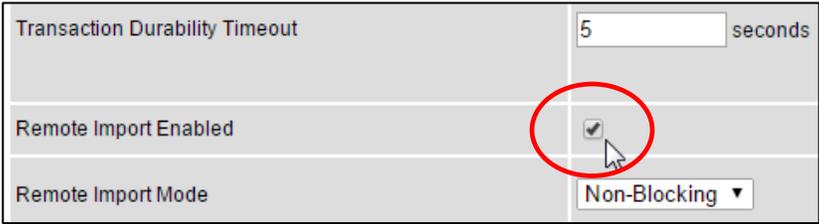
Step	Procedure	Result																		
1. <input type="checkbox"/>	Using VIP address, access the Primary SDS NOAM GUI .	<ul style="list-style-type: none"> Using VIP address, access the Primary SDS NOAM GUI as described in Appendix A. 																		
2. <input type="checkbox"/>	<p>Primary SDS NOAM VIP (GUI): Select...</p> <p>Main Menu → Status & Manage → HA</p> <p>...as shown on the right.</p>	 <p>The screenshot shows a web interface titled "Connected using VIP to sds-rhghnc-a (ACTIVE NETWORK OAM&P)". On the left is a "Main Menu" tree with folders for Administration, Configuration, Alarms & Events, Security Log, Status & Manage, Network Elements, Server, HA, Database, KPIs, Processes, Tasks, Files, and Measurements. The "HA" folder is highlighted. On the right is a "Main Menu: Status & Manage -> HA" page with a "Filter" dropdown and a table of hosts.</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>OAM HA Role</th> <th>Applicat HA Role</th> </tr> </thead> <tbody> <tr> <td>sds-rhghnc-a</td> <td>Active</td> <td>OOS</td> </tr> <tr> <td>sds-rhghnc-b</td> <td>Standby</td> <td>OOS</td> </tr> <tr> <td>qs-rhghnc</td> <td>Observer</td> <td>OOS</td> </tr> <tr> <td>sds-mrsvnc-a</td> <td>Standby</td> <td>OOS</td> </tr> <tr> <td>sds-mrsvnc-b</td> <td>Active</td> <td>OOS</td> </tr> </tbody> </table>	Hostname	OAM HA Role	Applicat HA Role	sds-rhghnc-a	Active	OOS	sds-rhghnc-b	Standby	OOS	qs-rhghnc	Observer	OOS	sds-mrsvnc-a	Standby	OOS	sds-mrsvnc-b	Active	OOS
Hostname	OAM HA Role	Applicat HA Role																		
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qs-rhghnc	Observer	OOS																		
sds-mrsvnc-a	Standby	OOS																		
sds-mrsvnc-b	Active	OOS																		
3. <input type="checkbox"/>	Record the name of the Primary SDS NOAM NE in the space provided.	<p>Using the information provided in Section 3.1.2 (Logins, Passwords and Site Information) record the name of the Primary SDS NE site in the space provided below:</p> <p>Primary SDS NOAM NE: _____</p>																		

Procedure 4: Upgrade Primary SDS NOAM NE

Step	Procedure	Result																												
<p>4.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>1) Click the “Filter” tab in the top left of the right panel.</p> <p>2) Under “Scope” select the Network Element name for the Primary SDS NOAM NE.</p> <p>2) Click on the “Go” dialogue button.</p>																													
<p>5.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>The user should be presented with the list of servers associated with the Primary SDS NOAM NE</p> <p>Identify each “Hostname”, its “Server Role” and “OAM HA Role”.</p>	<table border="1"> <thead> <tr> <th>Hostname</th> <th>OAM HA Role</th> <th>Application HA Role</th> <th>Max Allowed HA Role</th> <th>Mate Hostname List</th> <th>Network Element</th> <th>S</th> </tr> </thead> <tbody> <tr> <td>sds-rlghnc-a</td> <td>Active</td> <td>OOS</td> <td>Active</td> <td>sds-rlghnc-b</td> <td>NO_RLGHNC</td> <td>N</td> </tr> <tr> <td>sds-rlghnc-b</td> <td>Standby</td> <td>OOS</td> <td>Active</td> <td>sds-rlghnc-a</td> <td>NO_RLGHNC</td> <td>N</td> </tr> <tr> <td>qs-rlghnc</td> <td>Observer</td> <td>OOS</td> <td>Observer</td> <td>sds-rlghnc-a sds-rlghnc-b</td> <td>NO_RLGHNC</td> <td>Q</td> </tr> </tbody> </table>	Hostname	OAM HA Role	Application HA Role	Max Allowed HA Role	Mate Hostname List	Network Element	S	sds-rlghnc-a	Active	OOS	Active	sds-rlghnc-b	NO_RLGHNC	N	sds-rlghnc-b	Standby	OOS	Active	sds-rlghnc-a	NO_RLGHNC	N	qs-rlghnc	Observer	OOS	Observer	sds-rlghnc-a sds-rlghnc-b	NO_RLGHNC	Q
Hostname	OAM HA Role	Application HA Role	Max Allowed HA Role	Mate Hostname List	Network Element	S																								
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<p>6.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>Record the names of Primary SDS NOAM NE servers in the space provided to the right.</p>	<p><input type="checkbox"/> “Active” Primary SDS NOAM: _____</p> <p><input type="checkbox"/> “Standby” Primary SDS NOAM: _____</p> <p><input type="checkbox"/> Primary Query Server (if equipped): _____</p>																												

SDS Software Upgrade Guide

Procedure 4: Upgrade Primary SDS NOAM NE

Step	Procedure	Result										
<p>7.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>Select...</p> <p>Main Menu → SDS → Configuration → Options</p> <p>...as shown on the right.</p>	 <p>Connected using VIP to sds-aruba-a (ACTIVE NETWORK OAM&P)</p> <p>Main Menu: SDS -> Configuration -> Opti</p> <table border="1"> <thead> <tr> <th>Variable</th> <th></th> </tr> </thead> <tbody> <tr> <td>Display Command Output</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Allow Connections</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Max Transaction Size</td> <td>50</td> </tr> <tr> <td>Log Provisioning Messages</td> <td><input checked="" type="checkbox"/></td> </tr> </tbody> </table>	Variable		Display Command Output	<input checked="" type="checkbox"/>	Allow Connections	<input checked="" type="checkbox"/>	Max Transaction Size	50	Log Provisioning Messages	<input checked="" type="checkbox"/>
Variable												
Display Command Output	<input checked="" type="checkbox"/>											
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Max Transaction Size	50											
Log Provisioning Messages	<input checked="" type="checkbox"/>											
<p>8.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>Locate the “Remote Import Enabled” checkbox and record the pre-upgrade state.</p>	 <p>Transaction Durability Timeout: 5 seconds</p> <p>Remote Import Enabled: <input checked="" type="checkbox"/></p> <p>Remote Import Mode: Non-Blocking</p> <p>Remote Import Enabled (<i>pre-upgrade state</i>):</p> <p><input type="checkbox"/> CHECKED</p> <p><input type="checkbox"/> NOT CHECKED</p>										
<p>9.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>If the “Remote Import Enabled” checkbox was checked in the previous step, REMOVE the check mark.</p>	 <p>Transaction Durability Timeout: 5 seconds</p> <p>Remote Import Enabled: <input type="checkbox"/></p> <p>Remote Import Mode: Non-Blocking</p>										

SDS Software Upgrade Guide

Procedure 4: Upgrade Primary SDS NOAM NE

Step	Procedure	Result
<p>10.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>If the Check mark was REMOVED from the “Remote Import Enabled” checkbox in the previous step, then execute the following:</p> <p>1) Click the “Apply” dialogue box in the top left of the right panel.</p> <p>2) Verify that a “Success!” response is received in the banner.</p>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>Main Menu: SDS -> Configuration -> Options</p> <hr/> <div style="display: flex; align-items: center;"> <input type="button" value="Apply"/> 1 </div> </div> <div style="border: 1px solid black; padding: 5px;"> <p>Main Menu: SDS -> Configuration -> Options</p> <hr/> <div style="display: flex; align-items: center;"> <div style="border: 1px solid green; padding: 5px; background-color: #e0ffe0; margin-right: 10px;"> i Success! Update successful. 2 </div> <input type="button" value="Apply"/> </div> </div>
	<ul style="list-style-type: none"> • If source release is SDS 7.x, then SKIP to Step 29 of this procedure. • If source release is SDS 5.0, then continue with Step 11 of this procedure. 	
	<p>NOTE: <i>Steps 11 and 12 of this Procedure may be executed in parallel.</i></p>	
<p>11.</p> <input type="checkbox"/>	<p>SDS 5.0 only</p> <p>Primary SDS NOAM VIP:</p> <p>Upgrade the “Standby” Primary SDS NOAM server.</p>	<ul style="list-style-type: none"> • Upgrade the “Standby” Primary SDS NOAM server (as identified and recorded in Step 6 of this Procedure) using Appendix C (<i>Upgrade Server on SDS 5.0</i>). • In Step 6 of this Procedure, check-off <input checked="" type="checkbox"/> the associated checkbox as the upgrade is completed for the upgraded “Standby” Primary SDS NOAM server.
<p>12.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Initiate upgrade for the Primary SDS Query Server</p>	<ul style="list-style-type: none"> • Upgrade Primary Query Server (as identified and recorded in Step 6 of this Procedure) using Appendix C (<i>Upgrade Server on SDS 5.0</i>). <p>In Step 6 of this Procedure, check-off <input checked="" type="checkbox"/> the associated checkbox as the upgrade is completed for the upgraded Primary Query Server</p>
<p>13.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP (CLI):</p> <p>Using the VIP address, login to the “Active” Primary SDS NOAM with the admusr account.</p>	<pre>CentOS release 5.7 (Final) Kernel 2.6.18-274.7.1.el5prere15.0.0_72.32.0 on an x86_64 sds-rlghnc-a login: admusr Password: <admusr_password></pre>

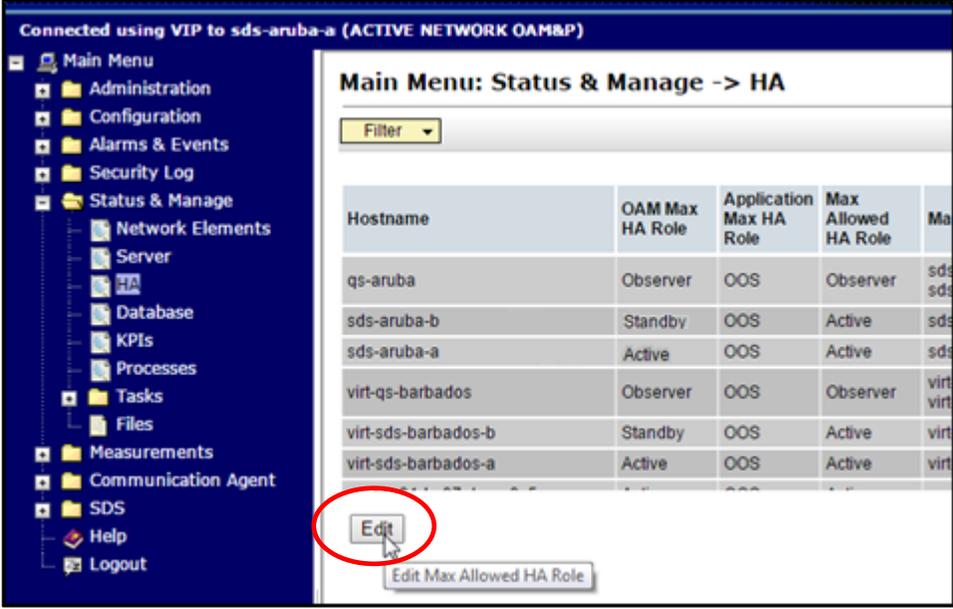
SDS Software Upgrade Guide

Procedure 4: Upgrade Primary SDS NOAM NE

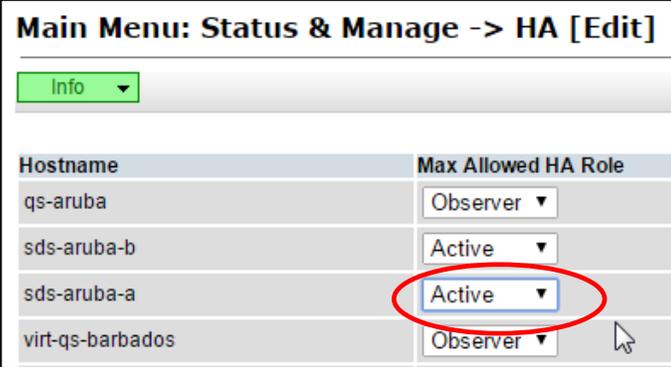
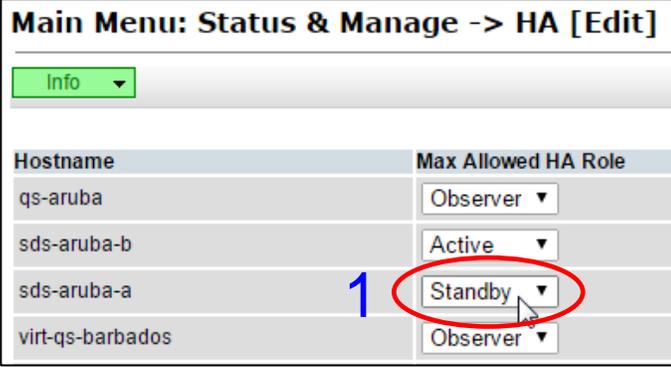
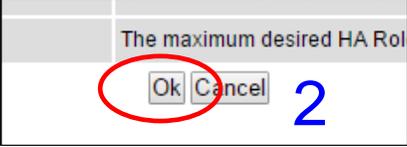
Step	Procedure	Result
14. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>The user will be presented with output similar to that shown to the right.</p>	<p>*** TRUNCATED OUTPUT ***</p> <pre>RELEASE=6.4 RUNID=00 VPATH=/var/TKLC/rundb:/usr/TKLC/appworks:/usr/TKLC/awpcommon:/usr/TKLC/comagent-gui:/usr/TKLC/comagent-gui:/usr/TKLC/comagent:/usr/TKLC/sds PRODPATH=/opt/comcol/prod RUNID=00 [admusr@sds-rlghnc-a ~]\$</pre>
15. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Verify that the DbReplication status is “Active” to the Standby Primary SDS NOAM and the Query Server (if equipped) which were upgraded in Steps 11 and 12 of this procedure.</p>	<pre>[admusr@sds-rlghnc-a ~]\$ sudo irepstat -w -- Policy 0 ActStb [DbReplication] AA To sds-rlghnc-b Active 0 0.25 1%R 0.05%cpu 47B/s AA To qs-rlghnc Active 0 0.25 1%R 0.05%cpu 56B/s AA To sds-mlsvnc-a Active 0 0.50 1%R 0.04%cpu 47B/s AB To kauai-sds-SO-b Active 0 0.50 1%R 0.04%cpu 63B/s AB To florence-sds-SO-a Active 0 0.51 1%R 0.03%cpu 65B/s AB To turks-sds-SO-b Active 0 0.50 1%R 0.04%cpu 65B/s irepstat (8 lines) (h)elp [admusr@sds-rlghnc-a ~]\$</pre>
16. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>!! IMPORTANT !!</p> <p>DO NOT proceed to the next step until a DbReplication status of “Active” is returned for the Standby Primary SDS NOAM and the Query Server (if equipped).</p>	<ul style="list-style-type: none"> If a DbReplication status of “Audit” was received in the previous step, then REPEAT Step 15 of this procedure until a status of “Active” is returned.
17. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Exit the CLI for the “Active” Primary SDS NOAM.</p>	<pre>[admusr@sds-rlghnc-a filemgmt]\$ exit logout</pre>
18. <input type="checkbox"/>	<p>Using VIP address, access the Primary SDS NOAM GUI.</p>	<ul style="list-style-type: none"> Using VIP address, access the Primary SDS NOAM GUI as described in Appendix A.

SDS Software Upgrade Guide

Procedure 4: Upgrade Primary SDS NOAM NE

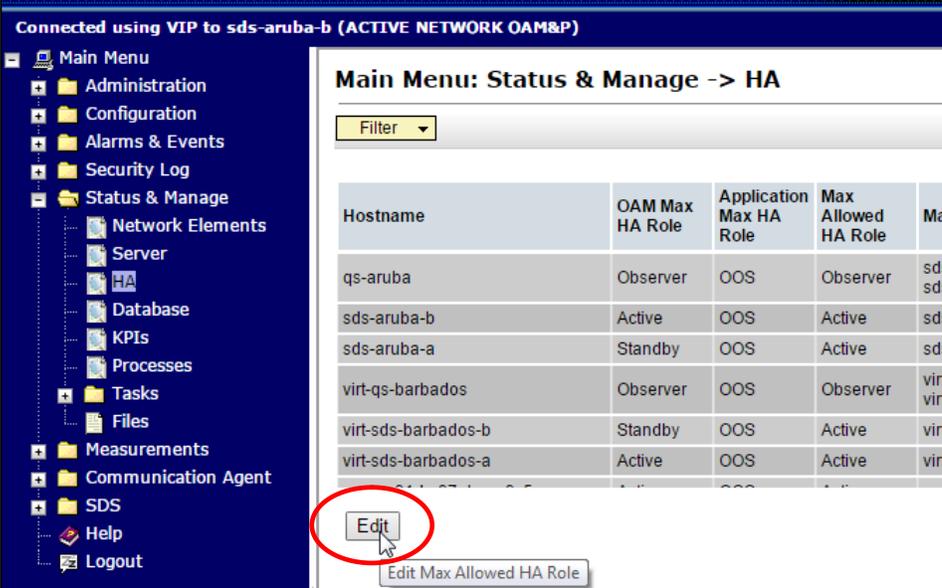
Step	Procedure	Result																																			
<p>19.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>1) Select...</p> <p>Main Menu → Status & Manage → HA</p> <p>...as shown on the right.</p> <p>2) Click on the “Edit” dialogue button.</p>	 <p>Connected using VIP to sds-aruba-a (ACTIVE NETWORK OAM&P)</p> <p>Main Menu: Status & Manage -> HA</p> <p>Filter</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>OAM Max HA Role</th> <th>Application Max HA Role</th> <th>Max Allowed HA Role</th> <th>Ma</th> </tr> </thead> <tbody> <tr> <td>qs-aruba</td> <td>Observer</td> <td>OOS</td> <td>Observer</td> <td>sds</td> </tr> <tr> <td>sds-aruba-b</td> <td>Standby</td> <td>OOS</td> <td>Active</td> <td>sds</td> </tr> <tr> <td>sds-aruba-a</td> <td>Active</td> <td>OOS</td> <td>Active</td> <td>sds</td> </tr> <tr> <td>virt-qs-barbados</td> <td>Observer</td> <td>OOS</td> <td>Observer</td> <td>virt</td> </tr> <tr> <td>virt-sds-barbados-b</td> <td>Standby</td> <td>OOS</td> <td>Active</td> <td>virt</td> </tr> <tr> <td>virt-sds-barbados-a</td> <td>Active</td> <td>OOS</td> <td>Active</td> <td>virt</td> </tr> </tbody> </table> <p>Edit</p> <p>Edit Max Allowed HA Role</p>	Hostname	OAM Max HA Role	Application Max HA Role	Max Allowed HA Role	Ma	qs-aruba	Observer	OOS	Observer	sds	sds-aruba-b	Standby	OOS	Active	sds	sds-aruba-a	Active	OOS	Active	sds	virt-qs-barbados	Observer	OOS	Observer	virt	virt-sds-barbados-b	Standby	OOS	Active	virt	virt-sds-barbados-a	Active	OOS	Active	virt
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Procedure 4: Upgrade Primary SDS NOAM NE

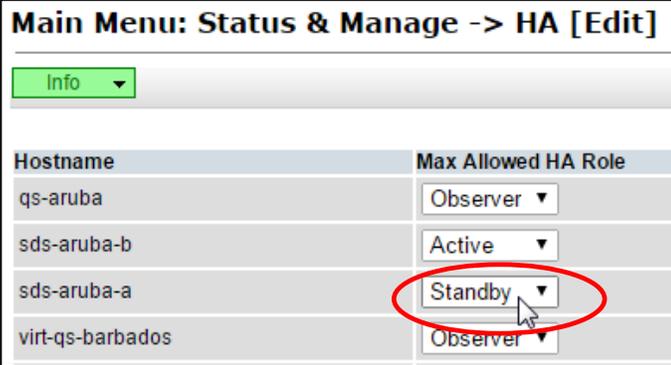
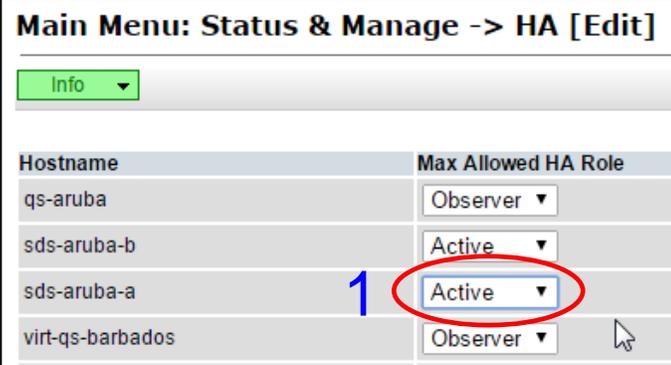
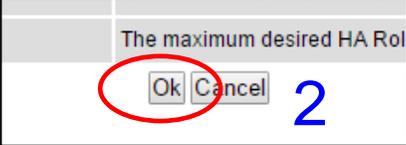
Step	Procedure	Result																				
<p>20.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>1) Select the “Active” Primary SDS NOAM server and change a Max Allowed HA Role value from “Active” to “Standby”.</p> <p>2) Press the “Ok” button. Then on the next screen,</p>	 <p>Main Menu: Status & Manage -> HA [Edit]</p> <p>Info</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Max Allowed HA Role</th> </tr> </thead> <tbody> <tr> <td>qs-aruba</td> <td>Observer</td> </tr> <tr> <td>sds-aruba-b</td> <td>Active</td> </tr> <tr> <td>sds-aruba-a</td> <td>Active</td> </tr> <tr> <td>virt-qs-barbados</td> <td>Observer</td> </tr> </tbody> </table>  <p>Main Menu: Status & Manage -> HA [Edit]</p> <p>Info</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Max Allowed HA Role</th> </tr> </thead> <tbody> <tr> <td>qs-aruba</td> <td>Observer</td> </tr> <tr> <td>sds-aruba-b</td> <td>Active</td> </tr> <tr> <td>sds-aruba-a</td> <td>Standby</td> </tr> <tr> <td>virt-qs-barbados</td> <td>Observer</td> </tr> </tbody> </table> <p>1</p>  <p>The maximum desired HA Role</p> <p>Ok Cancel</p> <p>2</p>	Hostname	Max Allowed HA Role	qs-aruba	Observer	sds-aruba-b	Active	sds-aruba-a	Active	virt-qs-barbados	Observer	Hostname	Max Allowed HA Role	qs-aruba	Observer	sds-aruba-b	Active	sds-aruba-a	Standby	virt-qs-barbados	Observer
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<p>21.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>As the “Active” Primary SDS NOAM server is placed in the “Prepare” Upgrade state, an HA Switchover will occur.</p>	<ul style="list-style-type: none"> The user’s GUI session will end as the “Active” Primary SDS Server goes through HA Switchover and becomes the “Standby” server. 																				
<p>22.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>If not automatically logged out of the GUI, use the [Logout] link in the top right of the browser to logout of the SDS NOAM GUI.</p>	 <p>Welcome guidadmin [Logout]</p>																				

SDS Software Upgrade Guide

Procedure 4: Upgrade Primary SDS NOAM NE

Step	Procedure	Result																																			
<p>23.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP (GUI):</p> <p>Clear the browser cache.</p> <p>!! IMPORTANT !!</p> <p>DO NOT proceed to the next step until the browser cache has been cleared.</p>	<p>JavaScript libraries, images and other objects are often modified in the upgrade. Browsers can sometimes cause GUI problems by holding on to the old objects in the built-in cache. To prevent these problems always clear the browser cache before logging into an OAM GUI which has just been upgraded:</p> <ol style="list-style-type: none"> 1) Simultaneously hold down the [Ctrl], [Shift] and [Delete] keys (<i>most Web browsers</i>). 2) Select the appropriate object types to delete from the cache via the pop-up dialog. (e.g. “Temporary Internet Files”, “Cache” or “Cached images and files”, etc.). Other browsers may label these objects differently. 3) Clear the cached data. 																																			
<p>24.</p> <input type="checkbox"/>	<p>Using VIP address, access the Primary SDS NOAM GUI.</p>	<ul style="list-style-type: none"> • Using VIP address, access the Primary SDS NOAM GUI as described in Appendix A. 																																			
<p>25.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>1) Select...</p> <p>Main Menu → Status & Manage → HA</p> <p>...as shown on the right.</p> <p>2) Click on the “Edit” dialogue button.</p>	 <p>The screenshot shows the GUI interface with a dark blue sidebar menu on the left and a main content area on the right. The sidebar menu includes categories like Administration, Configuration, Alarms & Events, Security Log, Status & Manage, Network Elements, Server, HA, Database, KPIs, Processes, Tasks, Files, Measurements, Communication Agent, SDS, Help, and Logout. The main content area is titled 'Main Menu: Status & Manage -> HA' and contains a table with columns: Hostname, OAM Max HA Role, Application Max HA Role, Max Allowed HA Role, and Ma. The table lists several hosts and their roles. At the bottom of the table, there is an 'Edit' button circled in red, with a tooltip that says 'Edit Max Allowed HA Role'.</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>OAM Max HA Role</th> <th>Application Max HA Role</th> <th>Max Allowed HA Role</th> <th>Ma</th> </tr> </thead> <tbody> <tr> <td>qs-aruba</td> <td>Observer</td> <td>OOS</td> <td>Observer</td> <td>sds</td> </tr> <tr> <td>sds-aruba-b</td> <td>Active</td> <td>OOS</td> <td>Active</td> <td>sds</td> </tr> <tr> <td>sds-aruba-a</td> <td>Standby</td> <td>OOS</td> <td>Active</td> <td>sds</td> </tr> <tr> <td>virt-qs-barbados</td> <td>Observer</td> <td>OOS</td> <td>Observer</td> <td>virt</td> </tr> <tr> <td>virt-sds-barbados-b</td> <td>Standby</td> <td>OOS</td> <td>Active</td> <td>virt</td> </tr> <tr> <td>virt-sds-barbados-a</td> <td>Active</td> <td>OOS</td> <td>Active</td> <td>virt</td> </tr> </tbody> </table>	Hostname	OAM Max HA Role	Application Max HA Role	Max Allowed HA Role	Ma	qs-aruba	Observer	OOS	Observer	sds	sds-aruba-b	Active	OOS	Active	sds	sds-aruba-a	Standby	OOS	Active	sds	virt-qs-barbados	Observer	OOS	Observer	virt	virt-sds-barbados-b	Standby	OOS	Active	virt	virt-sds-barbados-a	Active	OOS	Active	virt
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Procedure 4: Upgrade Primary SDS NOAM NE

Step	Procedure	Result																									
<p>26.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>1) Select the “Standby” Primary SDS NOAM server and change the Max Allowed HA Role value from “Standby” to “Active”.</p> <p>2) Press the “Ok” button. Then on the next screen,</p>	  																									
<p>27.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>Verify that the Max Allowed HA Role value has been updated to “Active” for the “Standby” Primary SDS NOAM server.</p>	<table border="1"> <thead> <tr> <th>Hostname</th> <th>OAM Max HA Role</th> <th>Application Max HA Role</th> <th>Max Allowed HA Role</th> <th>Mat</th> </tr> </thead> <tbody> <tr> <td>qs-aruba</td> <td>Observer</td> <td>OOS</td> <td>Observer</td> <td>sds sds</td> </tr> <tr> <td>sds-aruba-b</td> <td>Active</td> <td>OOS</td> <td>Active</td> <td>sds</td> </tr> <tr> <td>sds-aruba-a</td> <td>Standby</td> <td>OOS</td> <td>Active</td> <td>sds</td> </tr> <tr> <td>virt-qs-barbados</td> <td>Observer</td> <td>OOS</td> <td>Observer</td> <td>virt- virt-</td> </tr> </tbody> </table>	Hostname	OAM Max HA Role	Application Max HA Role	Max Allowed HA Role	Mat	qs-aruba	Observer	OOS	Observer	sds sds	sds-aruba-b	Active	OOS	Active	sds	sds-aruba-a	Standby	OOS	Active	sds	virt-qs-barbados	Observer	OOS	Observer	virt- virt-
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<p>28.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Initiate upgrade for the “Active” Primary SDS NOAM server.</p>	<ul style="list-style-type: none"> Upgrade “Active” Primary SDS NOAM server (as identified and recorded in Step 6 of this Procedure) using Appendix D (Server Upgrade Administration on SDS 7.x) In Step 6 of this Procedure, check-off <input checked="" type="checkbox"/> the associated check box as the upgrade is completed for the upgraded “Active” Primary SDS NOAM server. 																									

SDS Software Upgrade Guide

Procedure 4: Upgrade Primary SDS NOAM NE

Step	Procedure	Result
 <ul style="list-style-type: none"> For source release SDS 5.0, SKIP to Step 37 of this procedure. 		
 <p>NOTE: <i>Steps 29 and 30 of this procedure may be executed in parallel.</i></p>		
29. <input type="checkbox"/>	<p>SDS 7.x only</p> <p>Primary SDS NOAM VIP:</p> <p>Initiate upgrade for the “Standby” Primary SDS NOAM server.</p>	<ul style="list-style-type: none"> Upgrade “Standby” Primary SDS NOAM server (as identified and recorded in Step 6 of this procedure) using Appendix D (<i>Server Upgrade Administration on SDS 7.x</i>). In Step 6 of this procedure, check-off <input checked="" type="checkbox"/> the associated checkbox as the upgrade is completed for the upgraded “Standby” Primary SDS NOAM server.
30. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Initiate upgrade for the Primary Query Server</p>	<ul style="list-style-type: none"> Upgrade Primary Query Server (as identified and recorded in Step 6 of this Procedure) using Appendix D (<i>Server Upgrade Administration on SDS 7.x</i>) In Step 6 of this Procedure, check-off <input checked="" type="checkbox"/> the associated checkbox as the upgrade is completed for the upgraded Primary Query Server
31. <input type="checkbox"/>	<p>Primary SDS NOAM VIP (CLI):</p> <p>Using the VIP address, login to the “Active” Primary SDS NOAM with the admusr account.</p>	<pre>CentOS release 5.7 (Final) Kernel 2.6.18-274.7.1.el5prere15.0.0_72.32.0 on an x86_64 sds-rlghnc-a login: admusr Password: <admusr_password></pre>
32. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>The user will be presented with output similar to that shown to the right.</p>	<p>*** TRUNCATED OUTPUT ***</p> <pre>RELEASE=6.4 RUNID=00 VPATH=/var/TKLC/rundb:/usr/TKLC/appworks:/usr/TKLC/awpcommon:/usr/TKLC/comagent-gui:/usr/TKLC/comagent-gui:/usr/TKLC/comagent:/usr/TKLC/sds PRODPATH=/opt/comcol/prod RUNID=00 [admusr@sds-rlghnc-a ~]\$</pre>

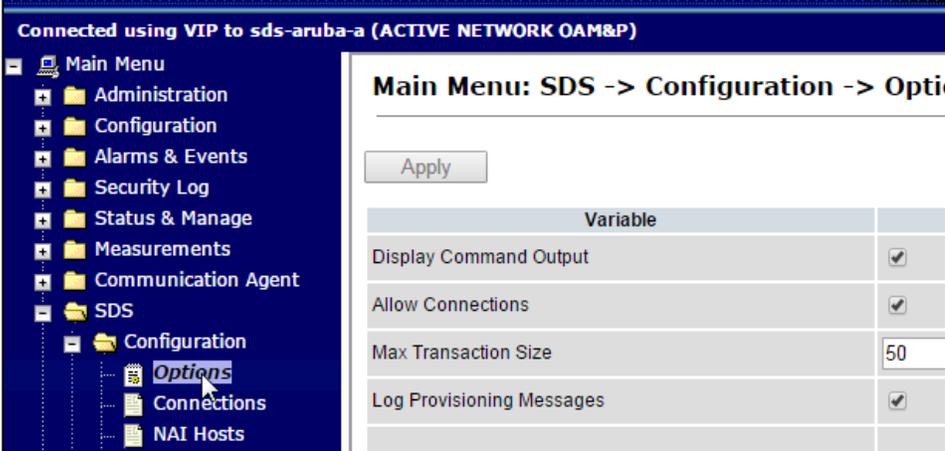
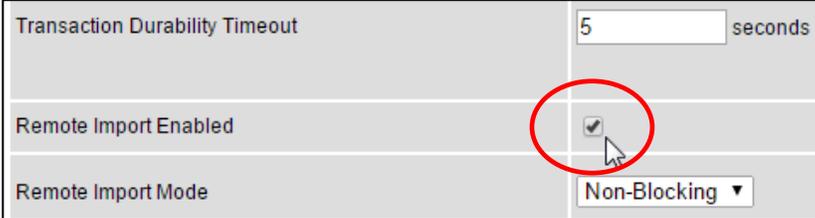
SDS Software Upgrade Guide

Procedure 4: Upgrade Primary SDS NOAM NE

Step	Procedure	Result
33. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Verify that the DbReplication status is “Active” to the Standby Primary SDS NOAM and the Query Server (if equipped) which were upgraded in Steps 29 and 30 of this procedure.</p>	<pre>[admusr@sds-rlghnc-a ~]\$ sudo irepstat -w -- Policy 0 ActStb [DbReplication] AA To sds-rlghnc-b Active 0 0.25 1%R 0.05%cpu 47B/s AA To qs-rlghnc Active 0 0.25 1%R 0.05%cpu 56B/s AA To sds-mrsvnc-a Active 0 0.50 1%R 0.04%cpu 47B/s AB To kauai-sds-SO-b Active 0 0.50 1%R 0.04%cpu 63B/s AB To florence-sds-SO-a Active 0 0.51 1%R 0.03%cpu 65B/s AB To turks-sds-SO-b Active 0 0.50 1%R 0.04%cpu 65B/s irepstat (8 lines) (h)elp [admusr@sds-rlghnc-a ~]\$</pre>
34. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>!! IMPORTANT !!</p> <p>DO NOT proceed to the next step until a DbReplication status of “Active” is returned for the Standby Primary SDS NOAM and the Query Server (if equipped).</p>	<p>If a DbReplication status of “Audit” was received in the previous step, then REPEAT Step 33 of this procedure until a status of “Active” is returned.</p>
35. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Exit the CLI for the “Active” Primary SDS NOAM.</p>	<pre>[admusr@sds-rlghnc-a filemgmt]\$ exit logout</pre>
36. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Initiate upgrade for the “Active” Primary SDS NOAM server.</p> <p>!! IMPORTANT !!</p> <p>This will cause an HA activity Switchover to the mate Primary SDS NOAM server. This will occur within a few minutes of initiating the upgrade.</p>	<ul style="list-style-type: none"> Upgrade “Active” Primary SDS NOAM server (as identified and recorded in Step 6 of this Procedure) using Appendix D (Server Upgrade Administration on SDS 7.x) In Step 6 of this Procedure, check-off <input checked="" type="checkbox"/> the associated check box as the upgrade is completed for the upgraded “Active” Primary SDS NOAM server.

SDS Software Upgrade Guide

Procedure 4: Upgrade Primary SDS NOAM NE

Step	Procedure	Result										
<p>37.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Re-Enable Provisioning Remote Import (if applicable).</p>	<ul style="list-style-type: none"> • If the “Remote Import Enabled” checkbox recorded in Step 8 of this procedure was CHECKED, then continue with Step 38 below. • If the “Remote Import Enabled” checkbox recorded in Step 8 of this procedure was NOT CHECKED, then Procedure 4 (Upgrade Primary SDS NOAM NE) has been COMPLETED. SKIP the remaining steps of this procedure and EXIT at this time. 										
<p>38.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP (GUI):</p> <p>Select...</p> <p>Main Menu → SDS → Configuration → Options</p> <p>...as shown on the right.</p>	 <p>The screenshot shows a web-based GUI for 'sds-aruba-a (ACTIVE NETWORK OAM&P)'. On the left is a 'Main Menu' tree with folders for Administration, Configuration, Alarms & Events, Security Log, Status & Manage, Measurements, Communication Agent, and SDS. Under SDS, there are sub-folders for Configuration, Options, Connections, and NAI Hosts. The 'Options' folder is selected. On the right, the 'Main Menu: SDS -> Configuration -> Options' page is displayed, featuring an 'Apply' button and a table of variables:</p> <table border="1"> <thead> <tr> <th>Variable</th> <th></th> </tr> </thead> <tbody> <tr> <td>Display Command Output</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Allow Connections</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Max Transaction Size</td> <td>50</td> </tr> <tr> <td>Log Provisioning Messages</td> <td><input checked="" type="checkbox"/></td> </tr> </tbody> </table>	Variable		Display Command Output	<input checked="" type="checkbox"/>	Allow Connections	<input checked="" type="checkbox"/>	Max Transaction Size	50	Log Provisioning Messages	<input checked="" type="checkbox"/>
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<p>39.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Locate the “Remote Import Enabled” checkbox and make sure that it is checked (ADD the check mark if necessary).</p>	 <p>The screenshot shows a configuration form with three rows:</p> <ul style="list-style-type: none"> Transaction Durability Timeout: 5 seconds Remote Import Enabled: <input checked="" type="checkbox"/> (circled in red) Remote Import Mode: Non-Blocking 										

SDS Software Upgrade Guide

Procedure 4: Upgrade Primary SDS NOAM NE

Step	Procedure	Result
<p>40.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>If the Check mark was ADDED to the “Remote Import Enabled” checkbox in the previous step, then execute the following:</p> <p>1) Click the “Apply” dialogue box in the top left of the right panel.</p> <p>2) Verify that a “Success!” response is received in the banner.</p>	<div> <p>Main Menu: SDS -> Configuration -> Options</p> <hr/> <p><input type="button" value="Apply"/> 1</p> </div> <div> <p>Main Menu: SDS -> Configuration -> Options</p> <hr/> <div> <p>i Success! Update successful. 2</p> </div> <p><input type="button" value="Apply"/></p> </div>
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>		

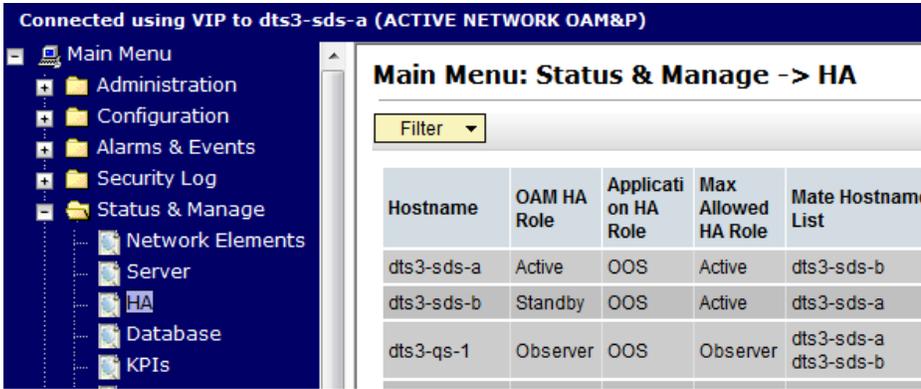
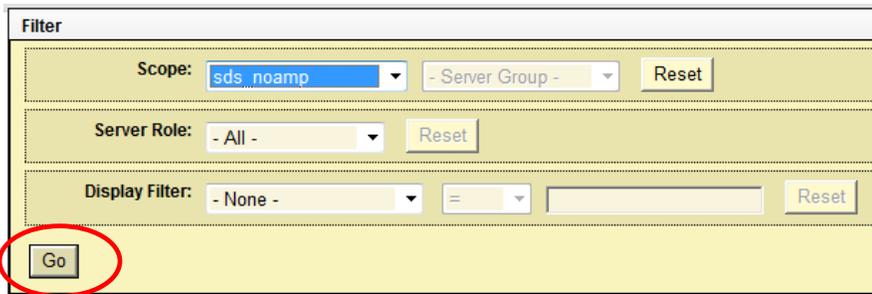
6.3 Upgrade DR SDS NOAM NE

This procedure is used to upgrade the DR SDS NOAM servers.

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

SHOULD ANY STEP IN THIS PROCEDURE FAIL, IT IS RECOMMENDED TO STOP AND CONTACT MOS FOR ASSISTANCE BEFORE CONTINUING!

Procedure 5: Upgrade DR SDS NOAM NE

Step	Procedure	Result																				
1. <input type="checkbox"/>	Using VIP address, access the Primary SDS GUI.	<ul style="list-style-type: none"> Using VIP address, access the Primary SDS GUI as described in Appendix A. 																				
2. <input type="checkbox"/>	<p>Primary SDS NOAM VIP: Select...</p> <p>Main Menu → Status & Manage → HA</p> <p>...as shown on the right.</p>	 <table border="1"> <thead> <tr> <th>Hostname</th> <th>OAM HA Role</th> <th>Applicati on HA Role</th> <th>Max Allowed HA Role</th> <th>Mate Hostnam List</th> </tr> </thead> <tbody> <tr> <td>dts3-sds-a</td> <td>Active</td> <td>OOS</td> <td>Active</td> <td>dts3-sds-b</td> </tr> <tr> <td>dts3-sds-b</td> <td>Standby</td> <td>OOS</td> <td>Active</td> <td>dts3-sds-a</td> </tr> <tr> <td>dts3-qs-1</td> <td>Observer</td> <td>OOS</td> <td>Observer</td> <td>dts3-sds-a dts3-sds-b</td> </tr> </tbody> </table>	Hostname	OAM HA Role	Applicati on HA Role	Max Allowed HA Role	Mate Hostnam List	dts3-sds-a	Active	OOS	Active	dts3-sds-b	dts3-sds-b	Standby	OOS	Active	dts3-sds-a	dts3-qs-1	Observer	OOS	Observer	dts3-sds-a dts3-sds-b
Hostname	OAM HA Role	Applicati on HA Role	Max Allowed HA Role	Mate Hostnam List																		
dts3-sds-a	Active	OOS	Active	dts3-sds-b																		
dts3-sds-b	Standby	OOS	Active	dts3-sds-a																		
dts3-qs-1	Observer	OOS	Observer	dts3-sds-a dts3-sds-b																		
3. <input type="checkbox"/>	Record the name of the DR SDS NE site in the space provided to the right.	<p>Using the information provided in Section 3.1.2 (Logins, Passwords and Site Information) record the name of the DR SDS NE site in the space provided below:</p> <p>DR SDS NE site: _____</p>																				
4. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>1) From the “Scope” filter pull-down, select the Network Element name for the DR SDS NE site</p> <p>2) Click on the “Go” dialogue button located on the right end of the filter bar.</p>																					

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<p>5.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>The user should be presented with the list of servers associated with the DR SDS NE site</p> <p>Identify each “Server”, its “Server Role” and “OAM HA Role”</p>	<table border="1"> <thead> <tr> <th>Hostname</th> <th>OAM HA Role</th> <th>Application HA Role</th> <th>Max Allowed HA Role</th> <th>Mate Hostname List</th> <th>Network Element</th> <th>Server Role</th> </tr> </thead> <tbody> <tr> <td>dts3-sds-a</td> <td>Active</td> <td>OOS</td> <td>Active</td> <td>dts3-sds-b</td> <td>sds_noamp</td> <td>Network OAM&P</td> </tr> <tr> <td>dts3-sds-b</td> <td>Standby</td> <td>OOS</td> <td>Active</td> <td>dts3-sds-a</td> <td>sds_noamp</td> <td>Network OAM&P</td> </tr> <tr> <td>dts3-qs-1</td> <td>Observer</td> <td>OOS</td> <td>Observer</td> <td>dts3-sds-a dts3-sds-b</td> <td>sds_noamp</td> <td>Query Server</td> </tr> </tbody> </table>	Hostname	OAM HA Role	Application HA Role	Max Allowed HA Role	Mate Hostname List	Network Element	Server Role	dts3-sds-a	Active	OOS	Active	dts3-sds-b	sds_noamp	Network OAM&P	dts3-sds-b	Standby	OOS	Active	dts3-sds-a	sds_noamp	Network OAM&P	dts3-qs-1	Observer	OOS	Observer	dts3-sds-a dts3-sds-b	sds_noamp	Query Server
Hostname	OAM HA Role	Application HA Role	Max Allowed HA Role	Mate Hostname List	Network Element	Server Role																								
dts3-sds-a	Active	OOS	Active	dts3-sds-b	sds_noamp	Network OAM&P																								
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<p>6.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Record the names of DR SDS NE site servers appropriately in the space provided to the right.</p>	<ul style="list-style-type: none"> Record the names of DR SDS NE site servers <input type="checkbox"/> DR SDS Active Server: _____ <input type="checkbox"/> DR SDS Standby Server: _____ <input type="checkbox"/> DR SDS Query Server: _____ 																												
<div style="display: flex; align-items: center;">  <p>NOTE: Steps 7 and 8 of this procedure may be executed in parallel using the “Upgrade Server” option.</p> </div>																														
<p>7.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Upgrade DR Query Server</p>	<ul style="list-style-type: none"> Upgrade DR Query Server (as identified and recorded in Step 6 of this Procedure) using Appendix D (<i>Server Upgrade Administration on SDS 7.x</i>). In Step 6 of this Procedure, check-off <input checked="" type="checkbox"/> the associated checkbox as the upgrade is completed for the upgraded DR Query Server. 																												
<p>8.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Upgrade “Standby” DR SDS NOAM server.</p>	<ul style="list-style-type: none"> Upgrade “Standby” DR SDS NOAM server (as identified and recorded in Step 6 of this Procedure) using Appendix D (<i>Server Upgrade Administration on SDS 7.x</i>). In Step 6 of this Procedure, check-off <input checked="" type="checkbox"/> the associated checkbox as the upgrade is completed for the upgraded “Standby” DR SDS NOAM server. 																												
<p>9.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Upgrade the “Active” DR SDS NOAM server.</p> <p>NOTE: This will cause an HA activity failover to the mate DR SDS NOAM server.</p>	<ul style="list-style-type: none"> Upgrade the “Active” DR SDS NOAM server (as identified and recorded in Step 6 of this Procedure) using Appendix D (<i>Server Upgrade Administration on SDS 7.x</i>). In Step 6 of this Procedure, check-off <input checked="" type="checkbox"/> the associated checkbox as the upgrade is completed for the upgraded “Active” DR SDS NOAM server. 																												
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>																														

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6.4 Perform Health Check (*Primary/DR NOAM Post Upgrade*)

This procedure is used to determine the health and status of the entire SDS network and servers after Primary and DR NOAM upgrade has been completed.

- Execute SDS Health Check procedures as specified in **Appendix B**.

7. SOAM UPGRADE EXECUTION

Call **My Oracle Support (MOS)** and inform them of your plans to upgrade this system prior to executing this upgrade. Refer to *Appendix N - Accessing My Oracle Support (MOS)* for information on contacting **MOS**.

Before upgrade, users must perform the system Health Check **Appendix B**. This check ensures that the system to be upgraded is in an upgrade-ready state. Performing the system health check determines which alarms are present in the system and if upgrade 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 upgrade process is started. The sequence of upgrade is such that servers providing support services to other servers will be upgraded first.

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

Please read the following notes on this procedure:

If a procedural STEP fails to execute successfully or fails to receive the desired output, **STOP** and contact **MOS** for assistance before attempting to continue.

Procedure completion times shown here are estimates. Times may vary due to differences in database size, user experience, and user preparation.

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 upgrade must mark the provided check box.

For procedures which are executed multiple times, a mark can be made below the check box (in the same column) for each additional iteration the step is executed.

Retention of Captured data is required as a future support reference if this procedure is executed by someone other than Oracle’s Tekelec Customer Care Center.

NOTE: For large systems containing multiple Signaling Network Elements, it may not be feasible to apply the software upgrade to every Network Element within a single maintenance window.

7.1 Perform Health Check (SOAM Pre Upgrade)

This procedure is part of Software Upgrade Preparation and is used to determine the health and status of the entire SDS 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 a maintenance window.

Execute SDS Health Check procedures as specified in **Appendix B**.

7.2 Upgrade SOAM NE

The following procedure details how to upgrade SDS SOAM sites.



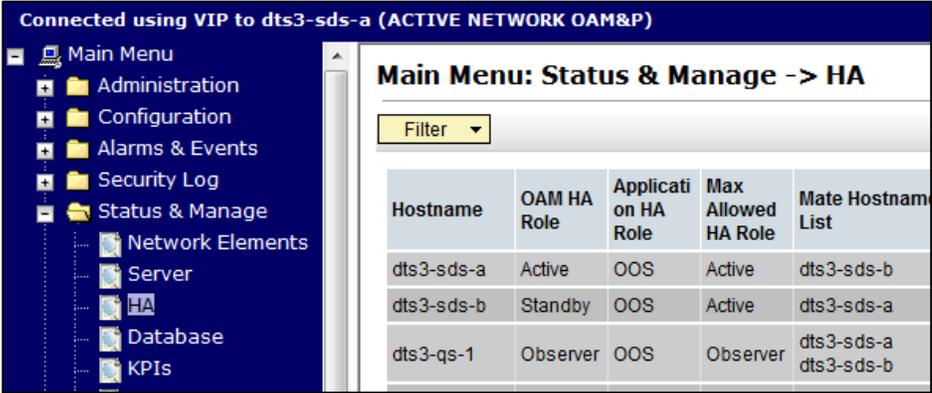
NOTE: When upgrading an **SDS** topology, it is permissible to upgrade multiple **SOAM** sites in **parallel**.

However, every attempt should be made to **avoid upgrading Mated SOAM sites in the same maintenance window**.

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

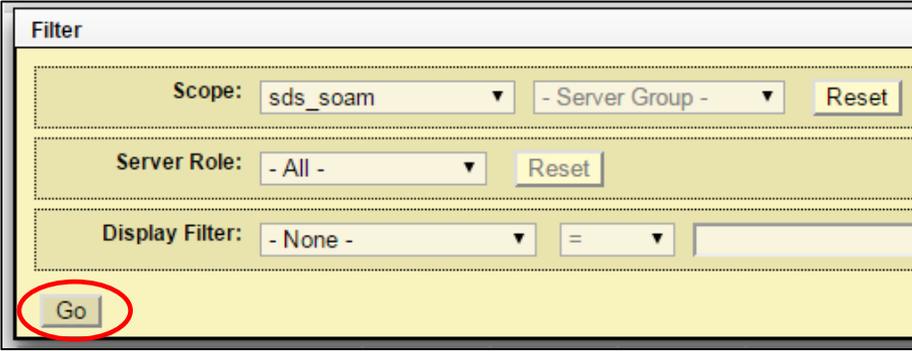
SHOULD ANY STEP IN THIS PROCEDURE FAIL, IT IS RECOMMENDED TO STOP AND CONTACT MOS FOR ASSISTANCE BEFORE CONTINUING!

Procedure 6: Upgrade SOAM NE

Step	Procedure	Result																				
1. <input style="width: 30px; height: 20px; margin-top: 5px;" type="checkbox"/>	Using VIP address, access the Primary SDS GUI.	<ul style="list-style-type: none"> Using VIP address, access the Primary SDS GUI as described in Appendix A. 																				
2. <input style="width: 30px; height: 20px; margin-top: 5px;" type="checkbox"/>	Record the name of the SOAM NE site in the space provided to the right.	<p>Using the information provided in Section 3.1.2 (Logins, Passwords and Site Information) record the name of the SOAM NE site in the space provided below:</p> <p>SOAM NE site: _____</p>																				
3. <input style="width: 30px; height: 20px; margin-top: 5px;" type="checkbox"/>	<p>Primary SDS NOAM VIP (GUI):</p> <p>Select...</p> <p>Main Menu → Status & Manage → HA</p> <p>...as shown on the right.</p>	 <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th>Hostname</th> <th>OAM HA Role</th> <th>Applicati on HA Role</th> <th>Max Allowed HA Role</th> <th>Mate Hostnam List</th> </tr> </thead> <tbody> <tr> <td>dts3-sds-a</td> <td>Active</td> <td>OOS</td> <td>Active</td> <td>dts3-sds-b</td> </tr> <tr> <td>dts3-sds-b</td> <td>Standby</td> <td>OOS</td> <td>Active</td> <td>dts3-sds-a</td> </tr> <tr> <td>dts3-qs-1</td> <td>Observer</td> <td>OOS</td> <td>Observer</td> <td>dts3-sds-a dts3-sds-b</td> </tr> </tbody> </table>	Hostname	OAM HA Role	Applicati on HA Role	Max Allowed HA Role	Mate Hostnam List	dts3-sds-a	Active	OOS	Active	dts3-sds-b	dts3-sds-b	Standby	OOS	Active	dts3-sds-a	dts3-qs-1	Observer	OOS	Observer	dts3-sds-a dts3-sds-b
Hostname	OAM HA Role	Applicati on HA Role	Max Allowed HA Role	Mate Hostnam List																		
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dts3-qs-1	Observer	OOS	Observer	dts3-sds-a dts3-sds-b																		

SDS Software Upgrade Guide

Procedure 6: Upgrade SOAM NE

Step	Procedure	Result																												
<p>4.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>1) From the “Scope” filter pull-down, select the Network Element name for the SOAM NE site</p> <p>2) Click on the “Go” dialogue button</p>																													
<p>5.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>The user should be presented with the list of servers associated with the SOAM NE site</p> <p>Identify “Hostname”, its “Server Role” and “OAM HA Role”</p>	<table border="1"> <thead> <tr> <th>Hostname</th> <th>OAM HA Role</th> <th>Applicati on HA Role</th> <th>Max Allowed HA Role</th> <th>Mate Hostname List</th> <th>Network Element</th> <th>Server Role</th> </tr> </thead> <tbody> <tr> <td>dts3-so-a</td> <td>Active</td> <td>OOS</td> <td>Active</td> <td>dts3-so-b</td> <td>sds_soam</td> <td>System OAM</td> </tr> <tr> <td>dts3-so-b</td> <td>Standby</td> <td>OOS</td> <td>Active</td> <td>dts3-so-a</td> <td>sds_soam</td> <td>System OAM</td> </tr> <tr> <td>dts3-dp-1</td> <td>Active</td> <td>OOS</td> <td>Active</td> <td></td> <td>sds_soam</td> <td>MP</td> </tr> </tbody> </table>	Hostname	OAM HA Role	Applicati on HA Role	Max Allowed HA Role	Mate Hostname List	Network Element	Server Role	dts3-so-a	Active	OOS	Active	dts3-so-b	sds_soam	System OAM	dts3-so-b	Standby	OOS	Active	dts3-so-a	sds_soam	System OAM	dts3-dp-1	Active	OOS	Active		sds_soam	MP
Hostname	OAM HA Role	Applicati on HA Role	Max Allowed HA Role	Mate Hostname List	Network Element	Server Role																								
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dts3-dp-1	Active	OOS	Active		sds_soam	MP																								
<p>6.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Record the names of SOAM NE site servers in the space provided.</p>	<p><input type="checkbox"/> Active SOAM Server: _____</p> <p><input type="checkbox"/> Standby SOAM Server: _____</p> <p><input type="checkbox"/> DP-1 Server: _____ <input type="checkbox"/> DP-6 Server: _____</p> <p><input type="checkbox"/> DP-2 Server: _____ <input type="checkbox"/> DP-7 Server: _____</p> <p><input type="checkbox"/> DP-3 Server: _____ <input type="checkbox"/> DP-8 Server: _____</p> <p><input type="checkbox"/> DP-4 Server: _____ <input type="checkbox"/> DP-9 Server: _____</p> <p><input type="checkbox"/> DP-5 Server: _____ <input type="checkbox"/> DP-10 Server: _____</p>																												
 <p>NOTE: Steps 7 and 8 of this procedure must be executed serially using the “Upgrade Server” option or the user may choose Server Group “Auto Upgrade” to automate Steps 7 - 8 of this procedure.</p>																														

SDS Software Upgrade Guide

Procedure 6: Upgrade SOAM NE

Step	Procedure	Result
7. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Upgrade the “Standby” SOAM server.</p> <p><i>NOTE: If using the “Auto Upgrade” option, SOAM servers shall be upgraded serially (Standby then Active).</i></p>	<ul style="list-style-type: none"> Upgrade the “Standby” SOAM server (as identified and recorded in Step 6 of this Procedure) using Appendix D (<i>Server Upgrade Administration on SDS 7.x</i>). In Step 6 of this Procedure, check-off <input checked="" type="checkbox"/> the associated checkbox as the upgrade is completed for the upgraded “Standby” SOAM server.
8. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Upgrade the “Active” SOAM server.</p>	<ul style="list-style-type: none"> Upgrade the “Active” SOAM server (as identified and recorded in Step 6 of this Procedure) using Appendix D (<i>Server Upgrade Administration on SDS 7.x</i>). In Step 6 of this Procedure, check-off <input checked="" type="checkbox"/> the associated checkbox as the upgrade is completed for the upgraded “Active” SOAM server.
 <p>NOTE: Up to 1/2 of the installed DP servers at a SOAM site may be upgraded in parallel using the “Upgrade Server” option for each individual DP server.</p>		
9. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Upgrade up to 1/2 of the installed DP servers in parallel (e.g. 1 of 2, 2 of 4, etc.).</p>	<ul style="list-style-type: none"> Upgrade up to 1/2 of the DP server(s) (as identified and recorded in Step 6 of this procedure) in parallel using the “Upgrade Server” option for each DP server as described in Appendix D (<i>Server Upgrade Administration on SDS 7.x</i>). <p>In Step 6 of this procedure, check-off <input checked="" type="checkbox"/> the associated checkbox as the upgrade is completed for the upgraded DP server(s).</p>
10. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Upgrade all remaining DP Servers in this SOAM NE site.</p>	<ul style="list-style-type: none"> Upgrade all remaining DP Servers (as identified and recorded in Step 6 of this procedure) in parallel using the “Upgrade Server” option for each DP server as described in Appendix D (<i>Server Upgrade Administration on SDS 7.x</i>). In Step 6 of this Procedure, check-off <input checked="" type="checkbox"/> the associated checkbox as the upgrade is completed for the upgraded DP server(s).
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>		

7.3 Perform Health Check (SOAM Post Upgrade)

This procedure is part of Software Upgrade Preparation and is used to determine the health and status of the SDS network and servers.

Execute SDS Health Check procedures as specified in **Appendix B**.

8. POST UPGRADE PROCEDURES

This section contains procedures that are executed after all servers have been upgraded.

To update the SOAM VM profile to support 1 billion subscribers, follow the procedures in Appendix L; otherwise skip this step.

8.1 Accepting the Upgrade

The upgrade needs either to be accepted or rejected before any subsequent upgrades may be performed in the future. Event ID: 32532 (Server Upgrade Pending Accept/Reject) will be displayed for each server until one of these two actions (**Accept** or **Reject**) is performed.



STOP !

An upgrade should be **Accepted** only after all servers in the **SDS** topology have successfully completed upgrade to the target release.

The user should also be aware that **Upgrade Acceptance prevents any possibility of backout to the previous release!!!**

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

SHOULD ANY STEP IN THIS PROCEDURE FAIL, IT IS RECOMMENDED TO STOP AND CONTACT MOS FOR ASSISTANCE BEFORE CONTINUING!

Procedure 7: Accepting the Upgrade

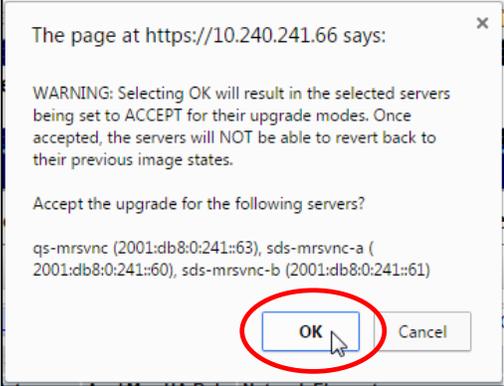
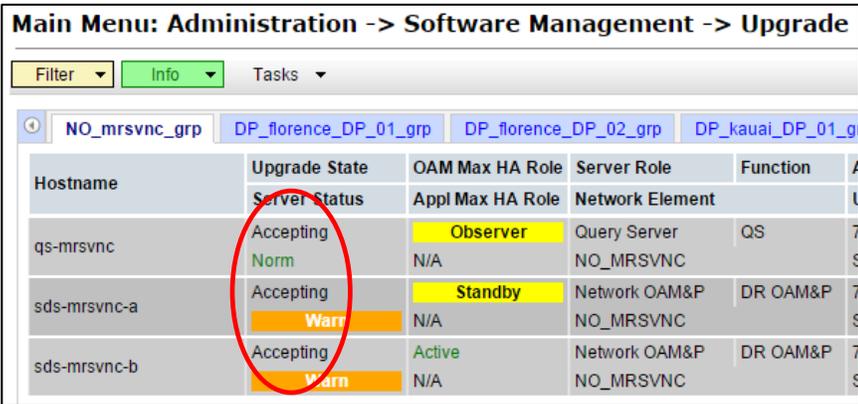
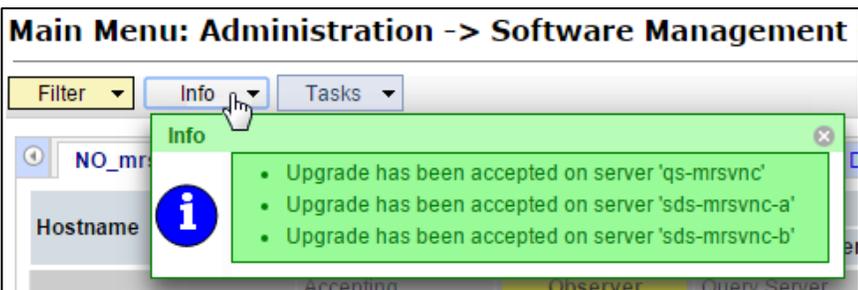
Step	Procedure	Result
1. <input type="checkbox"/>	Using VIP address, access the Primary SDS GUI.	<ul style="list-style-type: none"> Using VIP address, access the Primary SDS GUI as described in Appendix A.
2. <input type="checkbox"/>	<p>Primary SDS NOAM VIP (GUI):</p> <p>Select...</p> <p>Main Menu → Administration → Software Management → Upgrade</p> <p>...as shown on the right.</p>	

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Procedure 7: Accepting the Upgrade

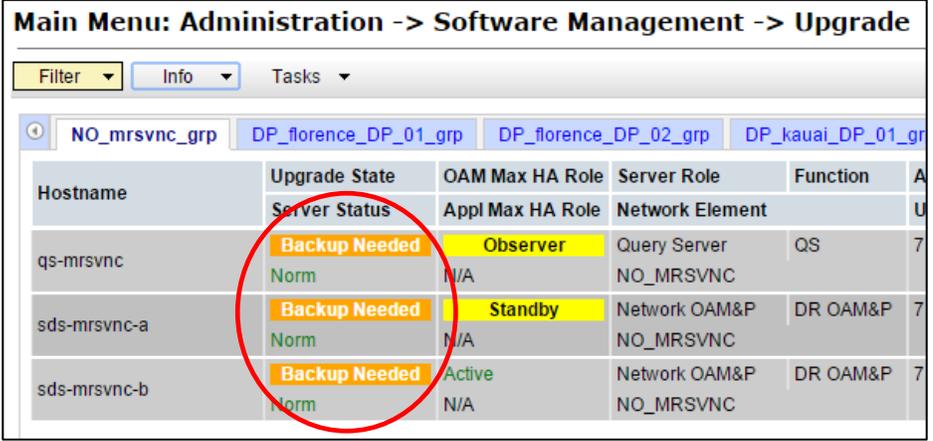
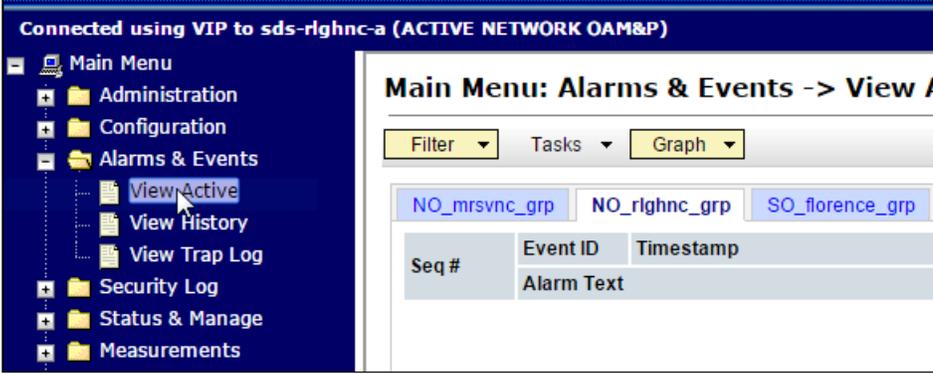
Step	Procedure	Result																														
<p>3.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>1) Select the Server Group tab containing the server(s) to “Accept” upgrade.</p> <p>2) Hold down the [CTRL] key to multi-select the server(s) all server(s) in the Server Group.</p> <p>3) Click the “Accept” button.</p>	<p>Main Menu: Administration -> Software Management -> Upgrade</p> <p>Filter Tasks</p> <p>1</p> <p>NO_mrsvnc_grp</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Upgrade State</th> <th>OAM Max HA Role</th> <th>Server Role</th> <th>Function</th> <th>Application Version</th> </tr> <tr> <th>Server Status</th> <th>Appl Max HA Role</th> <th>Network Element</th> <th>Upgrade ISO</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>qs-mrsvnc</td> <td>Accept or Reject Warn</td> <td>Observer</td> <td>Query Server</td> <td>QS</td> <td>7.1.0.0-71.7.0</td> </tr> <tr> <td>sds-mrsvnc-a</td> <td>Accept or Reject Warn</td> <td>Standby</td> <td>Network OAM&P</td> <td>DR OAM&P</td> <td>7.1.0.0-71.7.0</td> </tr> <tr> <td>sds-mrsvnc-b</td> <td>Accept or Reject Warn</td> <td>Active</td> <td>Network OAM&P</td> <td>DR OAM&P</td> <td>7.1.0.0-71.7.0</td> </tr> </tbody> </table> <p>2</p> <p>3</p> <p>Accept</p> <p>Accept upgrade on the selected server(s) in the active server group tab.</p>	Hostname	Upgrade State	OAM Max HA Role	Server Role	Function	Application Version	Server Status	Appl Max HA Role	Network Element	Upgrade ISO			qs-mrsvnc	Accept or Reject Warn	Observer	Query Server	QS	7.1.0.0-71.7.0	sds-mrsvnc-a	Accept or Reject Warn	Standby	Network OAM&P	DR OAM&P	7.1.0.0-71.7.0	sds-mrsvnc-b	Accept or Reject Warn	Active	Network OAM&P	DR OAM&P	7.1.0.0-71.7.0
Hostname	Upgrade State	OAM Max HA Role	Server Role	Function	Application Version																											
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sds-mrsvnc-a	Accept or Reject Warn	Standby	Network OAM&P	DR OAM&P	7.1.0.0-71.7.0																											
sds-mrsvnc-b	Accept or Reject Warn	Active	Network OAM&P	DR OAM&P	7.1.0.0-71.7.0																											

Procedure 7: Accepting the Upgrade

Step	Procedure	Result																									
<p>4.</p>	<p>Primary SDS NOAM VIP:</p> <p>1) A Click the “OK” dialogue button in the pop-up confirmation box.</p> <p>2) The screen will now refresh and the “Upgrade State” will change to “Accepting”.</p> <p>3) The pull-down “Info” message in the banner will indicate that “Upgrade has been accepted” on each server.</p>	 <p>The page at https://10.240.241.66 says:</p> <p>WARNING: Selecting OK will result in the selected servers being set to ACCEPT for their upgrade modes. Once accepted, the servers will NOT be able to revert back to their previous image states.</p> <p>Accept the upgrade for the following servers?</p> <p>qs-mrsvnc (2001:db8:0:241::63), sds-mrsvnc-a (2001:db8:0:241::60), sds-mrsvnc-b (2001:db8:0:241::61)</p> <p>OK Cancel</p>  <p>Main Menu: Administration -> Software Management -> Upgrade</p> <p>Filter Info Tasks</p> <p>NO_mrsvnc_grp DP_florence_DP_01_grp DP_florence_DP_02_grp DP_kauai_DP_01_g</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Upgrade State</th> <th>OAM Max HA Role</th> <th>Server Role</th> <th>Function</th> </tr> <tr> <th></th> <th>Server Status</th> <th>Appl Max HA Role</th> <th>Network Element</th> <th></th> </tr> </thead> <tbody> <tr> <td>qs-mrsvnc</td> <td>Accepting Norm</td> <td>Observer</td> <td>Query Server</td> <td>QS</td> </tr> <tr> <td>sds-mrsvnc-a</td> <td>Accepting Warn</td> <td>Standby</td> <td>Network OAM&P</td> <td>DR OAM&P</td> </tr> <tr> <td>sds-mrsvnc-b</td> <td>Accepting Warn</td> <td>Active</td> <td>Network OAM&P</td> <td>DR OAM&P</td> </tr> </tbody> </table>  <p>Main Menu: Administration -> Software Management</p> <p>Filter Info Tasks</p> <p>Info</p> <ul style="list-style-type: none"> • Upgrade has been accepted on server 'qs-mrsvnc' • Upgrade has been accepted on server 'sds-mrsvnc-a' • Upgrade has been accepted on server 'sds-mrsvnc-b' 	Hostname	Upgrade State	OAM Max HA Role	Server Role	Function		Server Status	Appl Max HA Role	Network Element		qs-mrsvnc	Accepting Norm	Observer	Query Server	QS	sds-mrsvnc-a	Accepting Warn	Standby	Network OAM&P	DR OAM&P	sds-mrsvnc-b	Accepting Warn	Active	Network OAM&P	DR OAM&P
Hostname	Upgrade State	OAM Max HA Role	Server Role	Function																							
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Procedure 7: Accepting the Upgrade

Step	Procedure	Result																									
<p>5.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Within a few minutes, the screen will refresh and display an “Upgrade State” of “Backup Needed”.</p> <p>!! IMPORTANT !!</p> <p>The “Backup Needed” Upgrade State is expected to remain until the next Software Upgrade is performed. DO NOT re-run COMCOL backups except when directed to do so during the Upgrade process.</p>	 <table border="1"> <caption>Main Menu: Administration -> Software Management -> Upgrade</caption> <thead> <tr> <th>Hostname</th> <th>Upgrade State</th> <th>OAM Max HA Role</th> <th>Server Role</th> <th>Function</th> </tr> <tr> <th></th> <th>Server Status</th> <th>Appl Max HA Role</th> <th>Network Element</th> <th></th> </tr> </thead> <tbody> <tr> <td>qs-mrsvnc</td> <td>Backup Needed</td> <td>Observer</td> <td>Query Server</td> <td>QS</td> </tr> <tr> <td>sds-mrsvnc-a</td> <td>Backup Needed</td> <td>Standby</td> <td>Network OAM&P</td> <td>DR OAM&P</td> </tr> <tr> <td>sds-mrsvnc-b</td> <td>Backup Needed</td> <td>Active</td> <td>Network OAM&P</td> <td>DR OAM&P</td> </tr> </tbody> </table>	Hostname	Upgrade State	OAM Max HA Role	Server Role	Function		Server Status	Appl Max HA Role	Network Element		qs-mrsvnc	Backup Needed	Observer	Query Server	QS	sds-mrsvnc-a	Backup Needed	Standby	Network OAM&P	DR OAM&P	sds-mrsvnc-b	Backup Needed	Active	Network OAM&P	DR OAM&P
Hostname	Upgrade State	OAM Max HA Role	Server Role	Function																							
	Server Status	Appl Max HA Role	Network Element																								
qs-mrsvnc	Backup Needed	Observer	Query Server	QS																							
sds-mrsvnc-a	Backup Needed	Standby	Network OAM&P	DR OAM&P																							
sds-mrsvnc-b	Backup Needed	Active	Network OAM&P	DR OAM&P																							
<p>6.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>“Accept” Upgrade on each remaining Server Group.</p>	<ul style="list-style-type: none"> Repeat Steps 3 - 5 of this procedure for each additional Server Group tab until Upgrade has been Accepted on all servers in the SDS topology. 																									
<p>7.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Select...</p> <p>Main Menu → Alarms & Events → View Active</p> <p>...as shown on the right.</p>	 <p>Connected using VIP to sds-rlghnc-a (ACTIVE NETWORK OAM&P)</p> <p>Main Menu: Alarms & Events -> View Active</p>																									
<p>8.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Verify Upgrade Acceptance.</p>	<p>Verify that the following Alarm is no longer present for any server in the SDS topology.</p> <ul style="list-style-type: none"> Event ID (s): 32532 (Server Upgrade Pending Accept/Reject) 																									
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>																											

8.2 SOAM VM Profile Update

C-class deployments are required to update the SOAM VM profile after upgrading to SDS release 7.2. The updated profile allocates additional resources required to support expanded subscriber capacity. The profile update is to be applied only after the upgrade to SDS 7.2 has been accepted (Procedure 7).

The SOAM VM profile update applies only to SDS 7.2 and later

The SOAM VM profile update can be applied only after the upgrade to SDS 7.2 has been accepted.

The SOAM VM profile update does not apply to VE-DSR and Cloud deployments.

Appendix L is an independent procedure and may be executed at any time after the upgrade has been accepted. It is recommended that the customer schedule a separate Maintenance Window for implementation of the new SOAM VM profile.

To update the SOAM VM profile to support 1 billion subscribers, follow the procedures in Appendix L; otherwise skip this step.

8.3 Undeploy ISO

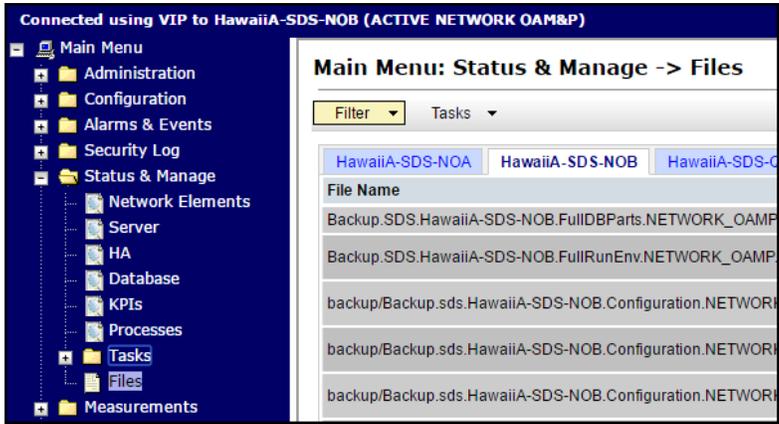
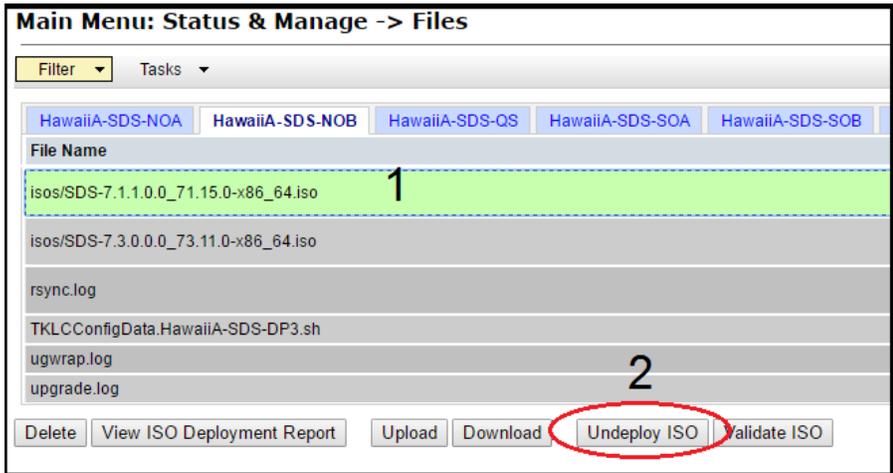
This procedure is run after the upgrade has been Accepted to undeploy all deployed ISOs. When an ISO is undeployed, the ISO is deleted from all servers in the topology except for the Active NOAM. On the Active NOAM, the ISO remains in the File Management Area.

This procedure can be run at anytime after the upgrade has been Accepted.

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

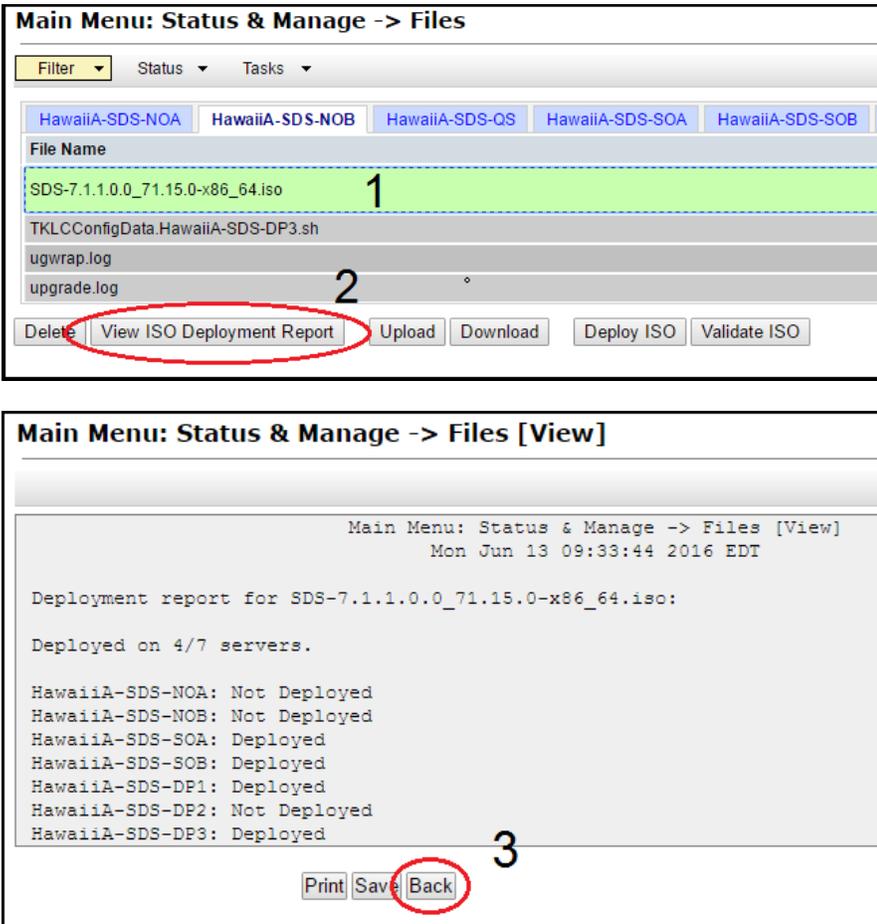
SHOULD ANY STEP IN THIS PROCEDURE FAIL, IT IS RECOMMENDED TO STOP AND CONTACT MOS FOR ASSISTANCE BEFORE CONTINUING!

Procedure 8: Undeploy ISO

Step	Procedure	Result
1. <input type="checkbox"/>	Using VIP address, access the Primary SDS GUI.	<ul style="list-style-type: none"> Using VIP address, access the Primary SDS GUI as described in Appendix A.
2. <input type="checkbox"/>	Primary SDS NOAM VIP (GUI): Select... Main Menu → Status & Manage → Files ...as shown on the right.	
3. <input type="checkbox"/>	Primary SDS NOAM VIP: 1) Select an ISO that is stored in the isos directory of the File Management Area. 2) Click the Undeploy ISO button.	

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Procedure 8: Undeploy ISO

Step	Procedure	Result
<p>4.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>3) Click OK in the confirmation dialog box to start the undeploy sequence. After clicking Ok the Status & Manage > Files screen will refresh.</p>	
<p>5.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>1) Select the ISO being deployed in step 3.</p> <p>2) Click the View ISO Deployment Report button.</p> <p>3) If some servers show the ISO as "Deployed", click the Back button on the Files [View] page</p> <p>4) Periodically repeat sub-steps 1 thru 3 until all servers indicate "Not Deployed".</p>	
<p>6.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP (GUI):</p> <p>Repeat as necessary</p>	<p>If there are additional ISOs in the File Management Area that need to be undeployed, repeat steps 3 thru 5 as necessary.</p>
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>		

9. RECOVERY PROCEDURES

Upgrade procedure recovery issues should be directed to the Oracle’s Tekelec Customer Care. Before executing any of these procedures, contact the Oracle Customer Care Center at 1-888-FOR-TKLC (1-888-367-8552); or 1-919-460-2150 (international). Persons performing the upgrade should be familiar with these documents.

Recovery procedures are covered under the Disaster Recovery Guide. Execute this section only if there is a problem and it is desired to revert back to the pre-upgrade version of the software.

	<ul style="list-style-type: none">• It is recommended to contact My Oracle Support (MOS) before performing these backout procedures.
!! WARNING !!	NOTE: Refer to Appendix N - Accessing My Oracle Support (MOS) for information on contacting MOS.
	<ul style="list-style-type: none">• Backout procedures will cause traffic loss!
!! WARNING !!	NOTE: These recovery procedures are provided for the Backout of an Upgrade ONLY! (i.e. for the Backout from a failed target release to the previously installed release).
	Backout of an initial installation is not supported!

9.1 Backout Setup

Identify IP addresses of all servers that need to be backed out.

1. Select **Administration** → **Software Management** → **Upgrade**
2. Based on the “Application Version” column, identify all the hostnames that need to be backed out.
3. Select **Configuration** → **Servers**
4. Identify the IMI IP addresses of all the hostnames identified in step 2. These are required to access the server when performing the backout.

The reason to execute a backout has a direct impact on any additional backout preparation that must be done. The backout procedure will cause traffic loss. Since all possible reasons cannot be predicted ahead of time, contact the Oracle’s Tekelec Customer Care Center as stated in the Warning box above.

NOTE: Verify that the two backup archive files created using Procedure 8 “Full Database Backup (All Network Elements, All Servers)” are present on every server that is to be backed-out.

These archive files are located in the `/var/TKLC/db/filemgmt` directory and have different filenames from other database backup files.

The filenames will have the format:

- **Backup.<application>.<server>.FullIDBParts.<role>.<date_time>.UPG.tar.bz2**
- **Backup.<application>.<server>.FullRunEnv.<role>.<date_time>.UPG.tar.bz2**

9.2 Perform Backout

The following procedures to perform a backout can only be executed once all necessary corrective setup steps have been taken to prepare for the backout. Contact the Oracle Customer Care Center as stated in the **Warning** box above to identify if all corrective setup steps have been taken.

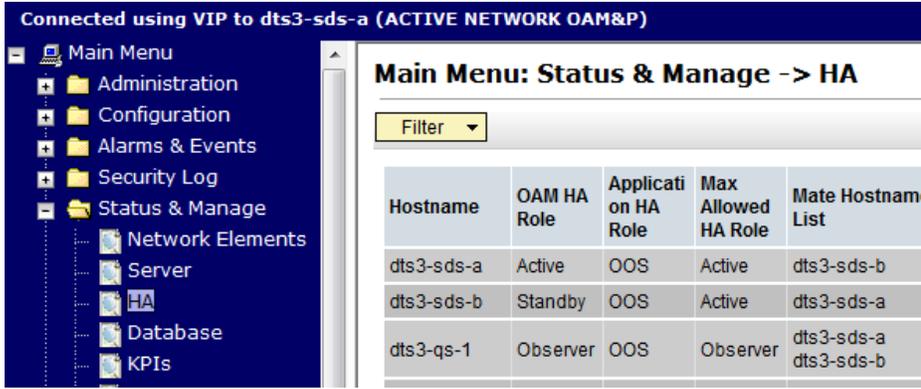
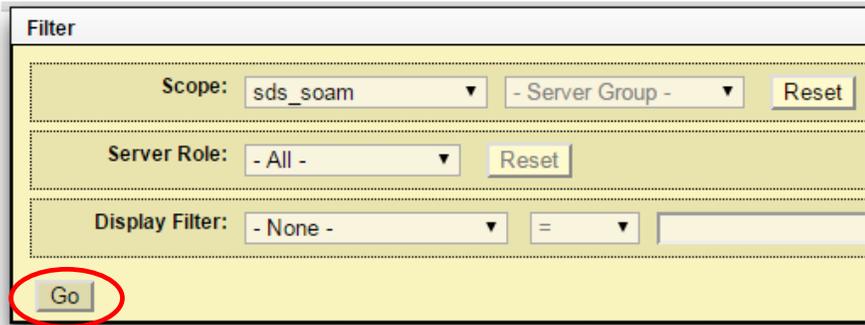
9.2.1 Backout of a SOAM NE

The following procedure details how to perform software backout for servers in the SOAM NE.

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

SHOULD ANY STEP IN THIS PROCEDURE FAIL, IT IS RECOMMENDED TO STOP AND CONTACT MOS FOR ASSISTANCE BEFORE CONTINUING!

Procedure 9: Backout of a SOAM NE

Step	Procedure	Result																				
1. <input type="checkbox"/>	Using VIP address, access the Primary SDS GUI.	<ul style="list-style-type: none"> Using VIP address, access the Primary SDS GUI as described in Appendix A. 																				
2. <input type="checkbox"/>	Record the name of the SOAM NE site	Using the information provided in Section 3.1.2 (Logins, Passwords and Site Information) record the name of the SOAM NE site in the space provided below: SOAM NE site: _____																				
3. <input type="checkbox"/>	Primary SDS NOAM VIP: Select... Main Menu → Status & Manage → HA ...as shown on the right.	 <table border="1" style="margin-top: 10px;"> <thead> <tr> <th>Hostname</th> <th>OAM HA Role</th> <th>Applicati on HA Role</th> <th>Max Allowed HA Role</th> <th>Mate Hostnam List</th> </tr> </thead> <tbody> <tr> <td>dts3-sds-a</td> <td>Active</td> <td>OOS</td> <td>Active</td> <td>dts3-sds-b</td> </tr> <tr> <td>dts3-sds-b</td> <td>Standby</td> <td>OOS</td> <td>Active</td> <td>dts3-sds-a</td> </tr> <tr> <td>dts3-qs-1</td> <td>Observer</td> <td>OOS</td> <td>Observer</td> <td>dts3-sds-a dts3-sds-b</td> </tr> </tbody> </table>	Hostname	OAM HA Role	Applicati on HA Role	Max Allowed HA Role	Mate Hostnam List	dts3-sds-a	Active	OOS	Active	dts3-sds-b	dts3-sds-b	Standby	OOS	Active	dts3-sds-a	dts3-qs-1	Observer	OOS	Observer	dts3-sds-a dts3-sds-b
Hostname	OAM HA Role	Applicati on HA Role	Max Allowed HA Role	Mate Hostnam List																		
dts3-sds-a	Active	OOS	Active	dts3-sds-b																		
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dts3-qs-1	Observer	OOS	Observer	dts3-sds-a dts3-sds-b																		
4. <input type="checkbox"/>	Primary SDS NOAM VIP: 1) From the “Scope” filter pull-down, select the Network Element name for the SOAM NE site 2) Click on the “Go” dialogue button																					

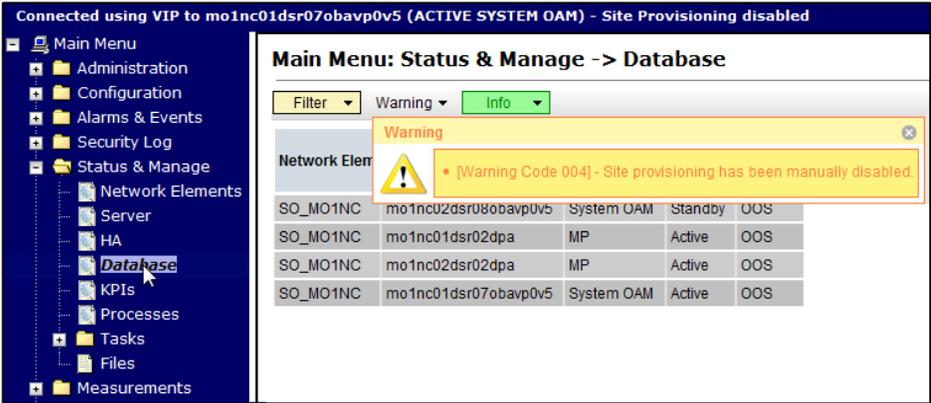
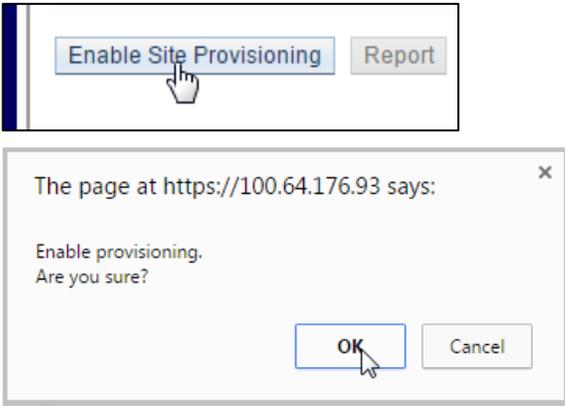
SDS Software Upgrade Guide

Procedure 9: Backout of a SOAM NE

Step	Procedure	Result																												
5. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>The user should be presented with the list of servers associated with the SOAM NE site</p> <p>Identify "Hostname", its "Server Role" and "OAM HA Role"</p>	<table border="1"> <thead> <tr> <th>Hostname</th> <th>OAM HA Role</th> <th>Application HA Role</th> <th>Max Allowed HA Role</th> <th>Mate Hostname List</th> <th>Network Element</th> <th>Server Role</th> </tr> </thead> <tbody> <tr> <td>dts3-so-a</td> <td>Active</td> <td>OOS</td> <td>Active</td> <td>dts3-so-b</td> <td>sds_soam</td> <td>System OAM</td> </tr> <tr> <td>dts3-so-b</td> <td>Standby</td> <td>OOS</td> <td>Active</td> <td>dts3-so-a</td> <td>sds_soam</td> <td>System OAM</td> </tr> <tr> <td>dts3-dp-1</td> <td>Active</td> <td>OOS</td> <td>Active</td> <td></td> <td>sds_soam</td> <td>MP</td> </tr> </tbody> </table>	Hostname	OAM HA Role	Application HA Role	Max Allowed HA Role	Mate Hostname List	Network Element	Server Role	dts3-so-a	Active	OOS	Active	dts3-so-b	sds_soam	System OAM	dts3-so-b	Standby	OOS	Active	dts3-so-a	sds_soam	System OAM	dts3-dp-1	Active	OOS	Active		sds_soam	MP
Hostname	OAM HA Role	Application HA Role	Max Allowed HA Role	Mate Hostname List	Network Element	Server Role																								
dts3-so-a	Active	OOS	Active	dts3-so-b	sds_soam	System OAM																								
dts3-so-b	Standby	OOS	Active	dts3-so-a	sds_soam	System OAM																								
dts3-dp-1	Active	OOS	Active		sds_soam	MP																								
6. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Record hostnames of SOAM NE site servers in the spaces provided to the right.</p>	<ul style="list-style-type: none"> Record the names of SOAM NE site servers: <ul style="list-style-type: none"> <input type="checkbox"/> Active SOAM Server: _____ <input type="checkbox"/> Standby SOAM Server: _____ <input type="checkbox"/> DP 1 Server: _____ <input type="checkbox"/> DP 6 Server: _____ <input type="checkbox"/> DP 2 Server: _____ <input type="checkbox"/> DP 7 Server: _____ <input type="checkbox"/> DP 3 Server: _____ <input type="checkbox"/> DP 8 Server: _____ <input type="checkbox"/> DP 4 Server: _____ <input type="checkbox"/> DP 9 Server: _____ <input type="checkbox"/> DP 5 Server: _____ <input type="checkbox"/> DP 10 Server: _____ 																												
7. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Downgrade DP 1 Server</p>	<ul style="list-style-type: none"> Downgrade DP 1 Server (as identified and recorded in Step 6 of this Procedure) using Appendix E (Backout of a Single Server) In Step 6 of this Procedure, check-off <input checked="" type="checkbox"/> the associated check box as the downgrade is completed for the backed out DP 1 Server 																												
8. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Downgrade all remaining DP Servers in this SOAM NE site</p>	<ul style="list-style-type: none"> Downgrade all remaining DP Servers in serial or parallel (as identified and recorded in Step 6 of this Procedure) using Appendix E (Backout of a Single Server) In Step 6 of this Procedure, check-off <input checked="" type="checkbox"/> the associated check box as the downgrade is completed for the backed out DP Server <p>Repeat this step until all DP servers requiring the downgrade within this SOAM NE site have been backed out.</p>																												
9. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Downgrade the Standby SOAM Server</p>	<ul style="list-style-type: none"> Downgrade the Standby SOAM Server (as identified and recorded in Step 6 of this Procedure) using Appendix E (Backout of a Single Server) In Step 6 of this Procedure, check-off <input checked="" type="checkbox"/> the associated check box as the downgrade is completed for the the backed out Standby SOAM Server 																												

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Procedure 9: Backout of a SOAM NE

Step	Procedure	Result																									
 <p>DO NOT PROCEED with the next step until Steps 7 thru 9 of this Procedure have been successfully completed.</p>																											
<p>10.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Downgrade the Active SOAM Server</p>	<ul style="list-style-type: none"> Downgrade the Active SOAM Server (as identified and recorded in Step 6 of this Procedure) using Appendix E (Backout of a Single Server) In Step 6 of this Procedure, check-off <input checked="" type="checkbox"/> the associated check box as the downgrade is completed for the backed out Active SOAM Server 																									
<p>11.</p> <input type="checkbox"/>	<p>Using VIP address, access the SOAM GUI.</p>	<p>Using VIP address, access the SOAM GUI as described in Appendix A.</p>																									
<p>12.</p> <input type="checkbox"/>	<p>SOAM VIP (GUI):</p> <p>Select...</p> <p>Main Menu → Status & Manage → Dstabase</p> <p>...as shown on the right.</p>	 <p>The screenshot shows the SOAM GUI interface. On the left is a navigation tree with 'Main Menu' expanded to 'Status & Manage' and 'Database' selected. On the right, a table lists network elements. A yellow warning banner is displayed at the top of the right panel.</p> <table border="1"> <thead> <tr> <th>Network Elem</th> <th>IP</th> <th>System OAM</th> <th>Status</th> <th>State</th> </tr> </thead> <tbody> <tr> <td>SO_MO1NC</td> <td>mo1nc02dsr080bavp0v5</td> <td>System OAM</td> <td>Standby</td> <td>OOS</td> </tr> <tr> <td>SO_MO1NC</td> <td>mo1nc01dsr02dpa</td> <td>MP</td> <td>Active</td> <td>OOS</td> </tr> <tr> <td>SO_MO1NC</td> <td>mo1nc02dsr02dpa</td> <td>MP</td> <td>Active</td> <td>OOS</td> </tr> <tr> <td>SO_MO1NC</td> <td>mo1nc01dsr070bavp0v5</td> <td>System OAM</td> <td>Active</td> <td>OOS</td> </tr> </tbody> </table>	Network Elem	IP	System OAM	Status	State	SO_MO1NC	mo1nc02dsr080bavp0v5	System OAM	Standby	OOS	SO_MO1NC	mo1nc01dsr02dpa	MP	Active	OOS	SO_MO1NC	mo1nc02dsr02dpa	MP	Active	OOS	SO_MO1NC	mo1nc01dsr070bavp0v5	System OAM	Active	OOS
Network Elem	IP	System OAM	Status	State																							
SO_MO1NC	mo1nc02dsr080bavp0v5	System OAM	Standby	OOS																							
SO_MO1NC	mo1nc01dsr02dpa	MP	Active	OOS																							
SO_MO1NC	mo1nc02dsr02dpa	MP	Active	OOS																							
SO_MO1NC	mo1nc01dsr070bavp0v5	System OAM	Active	OOS																							
<p>13.</p> <input type="checkbox"/>	<p>SOAM VIP:</p> <p>1) Click the “Enable Site Provisioning” button in the lower left of the right panel.</p> <p>2) Click the “OK” button on the pop-up confirmation dialoguw box.</p>	 <p>The screenshot shows two parts: the top part shows a button labeled 'Enable Site Provisioning' with a mouse cursor pointing to it; the bottom part shows a confirmation dialog box with the text 'The page at https://100.64.176.93 says: Enable provisioning. Are you sure?' and 'OK' and 'Cancel' buttons.</p>																									

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Procedure 9: Backout of a SOAM NE

Step	Procedure	Result
<p>14.</p> <input type="checkbox"/>	<p>SOAM VIP:</p> <p>Use the [Logout] link in the top right of the browser to logout of the SOAM GUI.</p>	
<p>15.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP (GUI):</p> <p>Execute downgrade for the remaining SOAM NE site(s)</p>	<p>Repeat all above steps of this procedure for the remaining SOAM NE site(s) (as identified and recorded in Section 3.1.2) until all SOAM NE site(s) requiring the downgrade have been backed out.</p>
<p>16.</p> <input type="checkbox"/>	<p>Execute Health Check at this time only if no other servers require the downgrade.</p> <p>Otherwise, proceed with the next backout procedure</p>	<p>Execute Health Check procedures (<i>Post Backout</i>) as specified in Appendix B, if backout procedures have been completed for all required servers.</p>
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>		

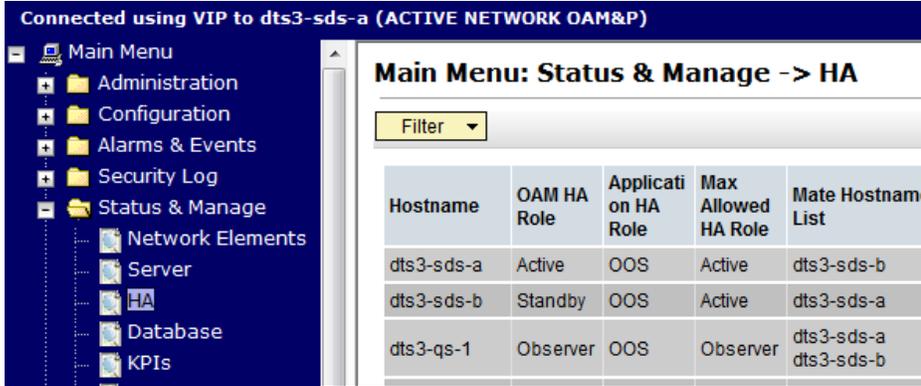
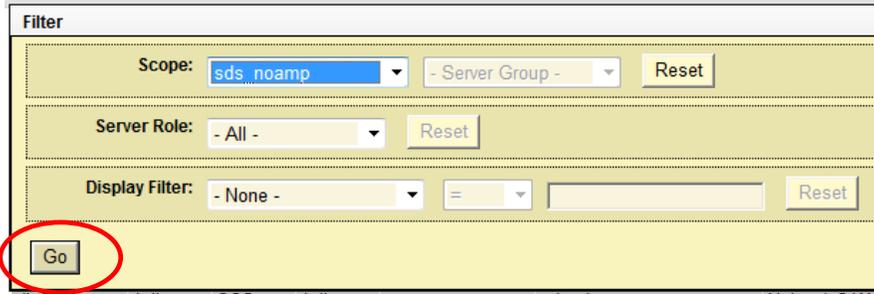
9.2.2 Backout of the DR SDS NOAM NE

The following procedure details how to perform software Backout for servers in the DR SDS NOAM NE.

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

SHOULD ANY STEP IN THIS PROCEDURE FAIL, IT IS RECOMMENDED TO STOP AND CONTACT MOS FOR ASSISTANCE BEFORE CONTINUING!

Procedure 10: Backout of the DR SDS NOAM NE

Step	Procedure	Result																				
1. <input type="checkbox"/>	Using VIP address, access the Primary SDS GUI.	<ul style="list-style-type: none"> Using VIP address, access the Primary SDS GUI as described in Appendix A. 																				
2. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Select...</p> <p>Main Menu → Status & Manage → HA</p> <p>...as shown on the right.</p>	 <p>The screenshot shows the 'Main Menu: Status & Manage -> HA' interface. On the left is a navigation tree with 'Status & Manage' selected. On the right is a table with the following data:</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>OAM HA Role</th> <th>Applicati on HA Role</th> <th>Max Allowed HA Role</th> <th>Mate Hostnam List</th> </tr> </thead> <tbody> <tr> <td>dts3-sds-a</td> <td>Active</td> <td>OOS</td> <td>Active</td> <td>dts3-sds-b</td> </tr> <tr> <td>dts3-sds-b</td> <td>Standby</td> <td>OOS</td> <td>Active</td> <td>dts3-sds-a</td> </tr> <tr> <td>dts3-qs-1</td> <td>Observer</td> <td>OOS</td> <td>Observer</td> <td>dts3-sds-a dts3-sds-b</td> </tr> </tbody> </table>	Hostname	OAM HA Role	Applicati on HA Role	Max Allowed HA Role	Mate Hostnam List	dts3-sds-a	Active	OOS	Active	dts3-sds-b	dts3-sds-b	Standby	OOS	Active	dts3-sds-a	dts3-qs-1	Observer	OOS	Observer	dts3-sds-a dts3-sds-b
Hostname	OAM HA Role	Applicati on HA Role	Max Allowed HA Role	Mate Hostnam List																		
dts3-sds-a	Active	OOS	Active	dts3-sds-b																		
dts3-sds-b	Standby	OOS	Active	dts3-sds-a																		
dts3-qs-1	Observer	OOS	Observer	dts3-sds-a dts3-sds-b																		
3. <input type="checkbox"/>	Record the name of the DR SDS NE site in the space provided to the right.	<p>Using the information provided in Section 3.1.2 (Logins, Passwords and Site Information) record the name of the DR SDS NE site in the space provided below:</p> <p>DR SDS NE site: _____</p>																				
4. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>1) From the “Scope” filter pull-down, select the Network Element name for the DR SDS NE site</p> <p>2) Click on the “Go” dialogue button located on the right end of the filter bar.</p>	 <p>The screenshot shows a filter bar with the following fields: Scope (set to 'sds_noamp'), Server Role (set to '- All -'), and Display Filter (set to '- None -'). A 'Go' button is circled in red at the bottom left of the filter bar.</p>																				

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Procedure 10: Backout of the DR SDS NOAM NE

Step	Procedure	Result																												
5. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>The user should be presented with the list of servers associated with the DR SDS NE site</p> <p>Identify each “Server”, its “Server Role” and “OAM HA Role”</p>	<table border="1"> <thead> <tr> <th>Hostname</th> <th>OAM HA Role</th> <th>Application HA Role</th> <th>Max Allowed HA Role</th> <th>Mate Hostname List</th> <th>Network Element</th> <th>Server Role</th> </tr> </thead> <tbody> <tr> <td>dts3-sds-a</td> <td>Active</td> <td>OOS</td> <td>Active</td> <td>dts3-sds-b</td> <td>sds_noamp</td> <td>Network OAM&P</td> </tr> <tr> <td>dts3-sds-b</td> <td>Standby</td> <td>OOS</td> <td>Active</td> <td>dts3-sds-a</td> <td>sds_noamp</td> <td>Network OAM&P</td> </tr> <tr> <td>dts3-qs-1</td> <td>Observer</td> <td>OOS</td> <td>Observer</td> <td>dts3-sds-a dts3-sds-b</td> <td>sds_noamp</td> <td>Query Server</td> </tr> </tbody> </table>	Hostname	OAM HA Role	Application HA Role	Max Allowed HA Role	Mate Hostname List	Network Element	Server Role	dts3-sds-a	Active	OOS	Active	dts3-sds-b	sds_noamp	Network OAM&P	dts3-sds-b	Standby	OOS	Active	dts3-sds-a	sds_noamp	Network OAM&P	dts3-qs-1	Observer	OOS	Observer	dts3-sds-a dts3-sds-b	sds_noamp	Query Server
Hostname	OAM HA Role	Application HA Role	Max Allowed HA Role	Mate Hostname List	Network Element	Server Role																								
dts3-sds-a	Active	OOS	Active	dts3-sds-b	sds_noamp	Network OAM&P																								
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6. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Record the names of DR SDS NE site servers appropriately in the space provided to the right.</p>	<ul style="list-style-type: none"> Record the names of DR SDS NE site servers <input type="checkbox"/> DR SDS Active Server: _____ <input type="checkbox"/> DR SDS Standby Server: _____ <input type="checkbox"/> DR SDS Query Server: _____ 																												
 <p>NOTE: Steps 7 and 8 of this Procedure may be executed in parallel.</p>																														
7. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Downgrade DR SDS Query Server</p>	<ul style="list-style-type: none"> Downgrade DR SDS Query Server (as identified and recorded in Step 6 of this Procedure) using Appendix E (Backout of a Single Server) In Step 6 of this Procedure, check-off <input checked="" type="checkbox"/> the associated check box as the downgrade is completed for the backed out DR SDS Query Server 																												
8. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Downgrade DR SDS Standby Server</p>	<ul style="list-style-type: none"> Downgrade DR SDS Standby Server (as identified and recorded in Step 6 of this Procedure) using Appendix E (Backout of a Single Server) In Step 6 of this Procedure, check-off <input checked="" type="checkbox"/> the associated check box as the downgrade is completed for the backed out DR SDS Standby Server 																												
 <p>DO NOT PROCEED with the next step until Steps 7 and 8 of this Procedure have been successfully completed.</p>																														
9. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Downgrade DR SDS Active Server</p>	<ul style="list-style-type: none"> Downgrade DR SDS Active Server (as identified and recorded in Step 6 of this Procedure) using Appendix E (Backout of a Single Server) <p>NOTE: This will cause an HA activity failover to the mate DR SDS Server. This happens a couple minutes after initiating the upgrade.</p> <ul style="list-style-type: none"> In Step 6 of this Procedure, check-off <input checked="" type="checkbox"/> the associated check box as the downgrade is completed for the backed out DR SDS Active Server 																												

SDS Software Upgrade Guide

Procedure 10: Backout of the DR SDS NOAM NE

Step	Procedure	Result
10. <input type="checkbox"/>	Active SDS VIP: Execute Health Check at this time only if no other servers require the backout. Otherwise, proceed with the next backout.	Execute Health Check procedures (Post Backout) as specified in Appendix B , if downgrade procedures have been completed for all required servers.
THIS PROCEDURE HAS BEEN COMPLETED		

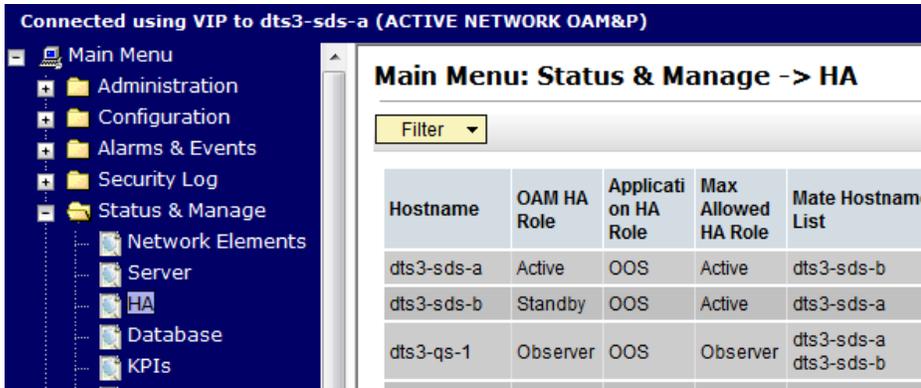
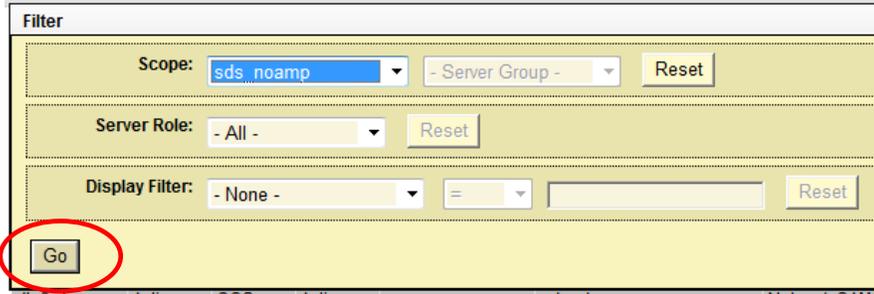
9.2.3 Backout of the Primary SDS NOAM NE

The following procedure details how to perform software Backout for servers in the Primary SDS NOAM NE.

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

SHOULD ANY STEP IN THIS PROCEDURE FAIL, IT IS RECOMMENDED TO STOP AND CONTACT MOS FOR ASSISTANCE BEFORE CONTINUING!

Procedure 11: Backout of the Primary SDS NOAM NE

Step	Procedure	Result																				
1. <input type="checkbox"/>	Using VIP address, access the Primary SDS GUI.	<ul style="list-style-type: none"> Using VIP address, access the Primary SDS GUI as described in Appendix A. 																				
2. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Select...</p> <p>Main Menu → Status & Manage → HA</p> <p>...as shown on the right.</p>	 <p>The screenshot shows the 'Main Menu: Status & Manage -> HA' interface. On the left is a navigation tree with 'Status & Manage' selected. On the right is a table with the following data:</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>OAM HA Role</th> <th>Applicati on HA Role</th> <th>Max Allowed HA Role</th> <th>Mate Hostnam List</th> </tr> </thead> <tbody> <tr> <td>dts3-sds-a</td> <td>Active</td> <td>OOS</td> <td>Active</td> <td>dts3-sds-b</td> </tr> <tr> <td>dts3-sds-b</td> <td>Standby</td> <td>OOS</td> <td>Active</td> <td>dts3-sds-a</td> </tr> <tr> <td>dts3-qs-1</td> <td>Observer</td> <td>OOS</td> <td>Observer</td> <td>dts3-sds-a dts3-sds-b</td> </tr> </tbody> </table>	Hostname	OAM HA Role	Applicati on HA Role	Max Allowed HA Role	Mate Hostnam List	dts3-sds-a	Active	OOS	Active	dts3-sds-b	dts3-sds-b	Standby	OOS	Active	dts3-sds-a	dts3-qs-1	Observer	OOS	Observer	dts3-sds-a dts3-sds-b
Hostname	OAM HA Role	Applicati on HA Role	Max Allowed HA Role	Mate Hostnam List																		
dts3-sds-a	Active	OOS	Active	dts3-sds-b																		
dts3-sds-b	Standby	OOS	Active	dts3-sds-a																		
dts3-qs-1	Observer	OOS	Observer	dts3-sds-a dts3-sds-b																		
3. <input type="checkbox"/>	Record the name of the Primary SDS NE site in the space provided to the right.	<p>Using the information provided in Section 3.1.2 (Logins, Passwords and Site Information) record the name of the DR SDS NE site in the space provided below:</p> <p>Primary SDS NE site: _____</p>																				
4. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>1) From the “Scope” filter pull-down, select the Network Element name for the Primary SDS NE site</p> <p>2) Click on the “Go” dialogue button located on the right end of the filter bar.</p>	 <p>The screenshot shows a filter bar with the following fields: 'Scope' (set to 'sds_noamp'), 'Server Role' (set to '- All -'), and 'Display Filter' (set to '- None -'). A 'Go' button is circled in red at the bottom left of the filter bar.</p>																				

SDS Software Upgrade Guide

Procedure 11: Backout of the Primary SDS NOAM NE

Step	Procedure	Result																												
5. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>The user should be presented with the list of servers associated with the Primary SDS NE site</p> <p>Identify each “Server”, its “Server Role” and “OAM HA Role”</p>	<table border="1"> <thead> <tr> <th>Hostname</th> <th>OAM HA Role</th> <th>Application HA Role</th> <th>Max Allowed HA Role</th> <th>Mate Hostname List</th> <th>Network Element</th> <th>Server Role</th> </tr> </thead> <tbody> <tr> <td>dts3-sds-a</td> <td>Active</td> <td>OOS</td> <td>Active</td> <td>dts3-sds-b</td> <td>sds_noamp</td> <td>Network OAM&P</td> </tr> <tr> <td>dts3-sds-b</td> <td>Standby</td> <td>OOS</td> <td>Active</td> <td>dts3-sds-a</td> <td>sds_noamp</td> <td>Network OAM&P</td> </tr> <tr> <td>dts3-qs-1</td> <td>Observer</td> <td>OOS</td> <td>Observer</td> <td>dts3-sds-a dts3-sds-b</td> <td>sds_noamp</td> <td>Query Server</td> </tr> </tbody> </table>	Hostname	OAM HA Role	Application HA Role	Max Allowed HA Role	Mate Hostname List	Network Element	Server Role	dts3-sds-a	Active	OOS	Active	dts3-sds-b	sds_noamp	Network OAM&P	dts3-sds-b	Standby	OOS	Active	dts3-sds-a	sds_noamp	Network OAM&P	dts3-qs-1	Observer	OOS	Observer	dts3-sds-a dts3-sds-b	sds_noamp	Query Server
Hostname	OAM HA Role	Application HA Role	Max Allowed HA Role	Mate Hostname List	Network Element	Server Role																								
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6. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Record the names of Primary SDS NE site servers appropriately in the space provided to the right.</p>	<ul style="list-style-type: none"> Record the names of Primary SDS NE site servers <input type="checkbox"/> Primary SDS Active Server: _____ <input type="checkbox"/> Primary SDS Standby Server: _____ <input type="checkbox"/> Primary SDS Query Server: _____ 																												
 <p>NOTE: Steps 7 and 8 of this Procedure may be executed in parallel.</p>																														
7. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Downgrade Primary SDS Query Server</p>	<ul style="list-style-type: none"> Downgrade Primary SDS Query Server (as identified and recorded in Step 6 of this Procedure) using Appendix E (Backout of a Single Server) In Step 6 of this Procedure, check-off <input checked="" type="checkbox"/> the associated check box as the downgrade is completed for the backed out Primary SDS Query Server 																												
8. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Downgrade Primary SDS “Standby” Server</p>	<ul style="list-style-type: none"> Downgrade Primary SDS NOAM “Standby” Server (as identified and recorded in Step 6 of this Procedure) using Appendix E (Backout of a Single Server) In Step 6 of this Procedure, check-off <input checked="" type="checkbox"/> the associated check box as the downgrade is completed for the backed out Primary SDS Standby Server 																												
9. <input type="checkbox"/>	<p>Primary SDS NOAM VIP (CLI):</p> <p>Using the VIP address, login to the “Active” Primary SDS NOAM with the admusr account.</p>	<pre>CentOS release 5.7 (Final) Kernel 2.6.18-274.7.1.el5prere15.0.0_72.32.0 on an x86_64 sds-rlghnc-b login: admusr Password: <admusr_password></pre>																												

Procedure 11: Backout of the Primary SDS NOAM NE

Step	Procedure	Result
<p>10.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP (CLI):</p> <p>The user will be presented with output similar to that shown to the right.</p>	<p>*** TRUNCATED OUTPUT ***</p> <pre>RELEASE=6.4 RUNID=00 VPATH=/var/TKLC/rundb:/usr/TKLC/appworks:/usr/TKLC/awpcommon:/usr/TKLC/c omagent-gui:/usr/TKLC/comagent-gui:/usr/TKLC/comagent:/usr/TKLC/sds PRODPATH=/opt/comcol/prod RUNID=00 [admusr@sds-rlghnc-b ~]\$</pre>
<p>11.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP (CLI):</p> <p>Verify that the DbReplication status is “Active” to the Standby Primary SDS NOAM and the Query Server (if equipped) which were upgraded in Steps 29 and 30 of this procedure.</p>	<pre>[admusr@sds-rlghnc-b ~]\$ sudo irepstat -w -- Policy 0 ActStb [DbReplication] AA To sds-rlghnc-a Active 0 0.25 1%R 0.05%cpu 47B/s AA To qs-rlghnc Active 0 0.25 1%R 0.05%cpu 56B/s AA To sds-mrsvnc-a Active 0 0.50 1%R 0.04%cpu 47B/s AB To kauai-sds-SO-b Active 0 0.50 1%R 0.04%cpu 63B/s AB To florence-sds-SO-a Active 0 0.51 1%R 0.03%cpu 65B/s AB To turks-sds-SO-b Active 0 0.50 1%R 0.04%cpu 65B/s irepstat (8 lines) (h)elp [admusr@sds-rlghnc-b ~]\$</pre>
<p>12.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>!! IMPORTANT !!</p> <p>DO NOT proceed to the next step until a DbReplication status of “Active” is returned for the Standby Primary SDS NOAM and the Query Server (if equipped).</p>	<p>If a DbReplication status of “Audit” was received in the previous step, then REPEAT Step 11 of this procedure until a status of “Active” is returned.</p>
<p>13.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Exit the CLI for the “Active” Primary SDS NOAM.</p>	<pre>[admusr@sds-rlghnc-b ~]\$ exit logout</pre>
<p>14.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Downgrade Primary SDS “Active” Server.</p> <p>!! IMPORTANT !!</p> <p>This will cause an HA activity Switchover to the mate Primary SDS NOAM server.</p>	<ul style="list-style-type: none"> Downgrade Primary SDS NOAM “Active” Server (as identified and recorded in Step 6 of this Procedure) using Appendix E (Backout of a Single Server) In Step 6 of this Procedure, check-off <input checked="" type="checkbox"/> the associated check box as the downgrade is completed for the backed out Primary SDS NOAM Active Server

SDS Software Upgrade Guide

Procedure 11: Backout of the Primary SDS NOAM NE

Step	Procedure	Result
15. <input type="checkbox"/>	Allow system to auto-clear temporary alarm states.	<ul style="list-style-type: none">• Wait up to 10 minutes for Alarms associated with server backout to auto-clear. <p>!! IMPORTANT !!</p> <ul style="list-style-type: none">• If PDB Relay was recorded as “Enabled” in Appendix E, Step 8, then Event 14189 (<i>pdbRelay Time Lag</i>) may be persist for several hours post upgrade. This alarm can safely be ignored and should be auto-clear when the PDBI (HLRR) queue catches up with real-time replication.
16. <input type="checkbox"/>	Execute Health Check	Execute Health Check procedures (Post Backout) as specified in Appendix B , if downgrade procedures have been completed for all required servers.
THIS PROCEDURE HAS BEEN COMPLETED		

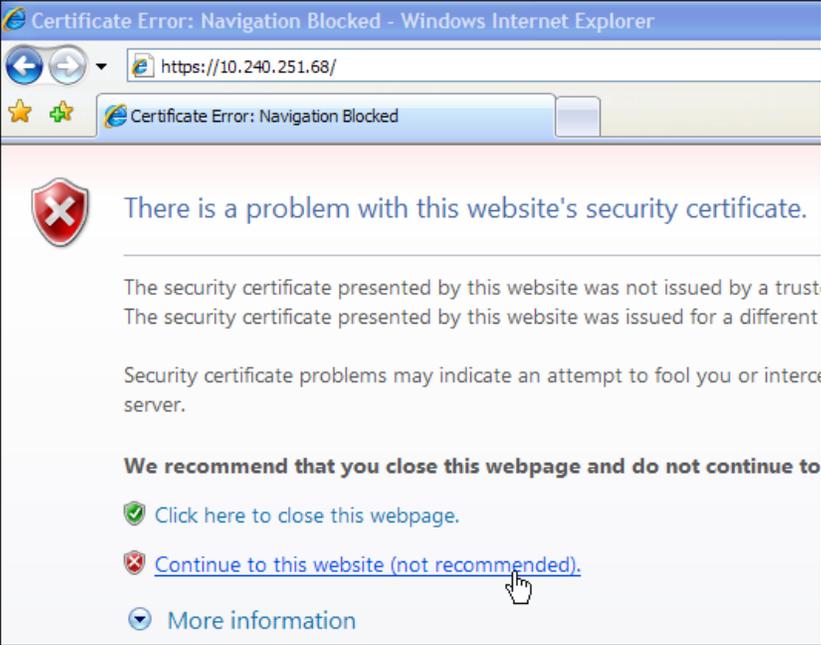
Appendix A Accessing the OAM GUI using the VIP (NOAM / SOAM)

This procedure describes how to access and log into the NOAM GUI.

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

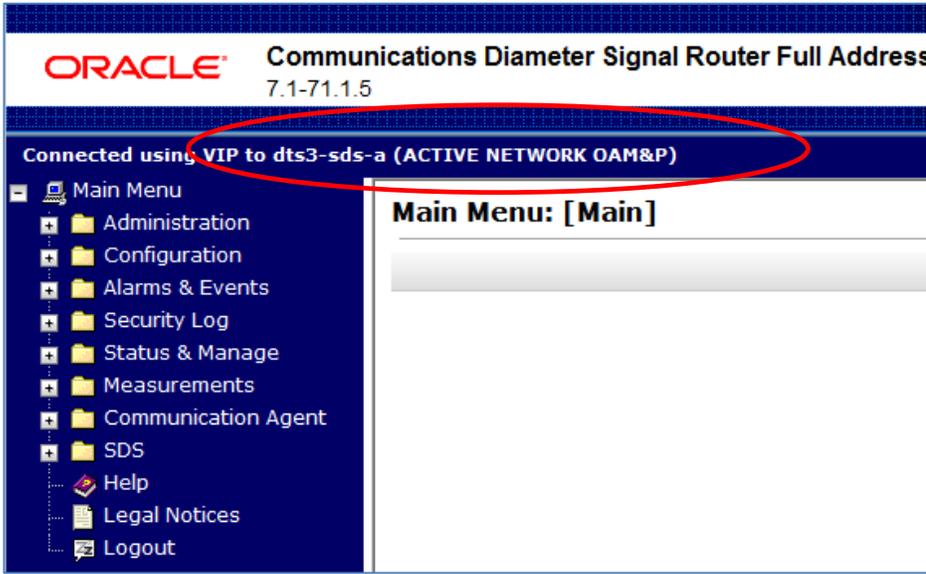
SHOULD ANY STEP IN THIS PROCEDURE FAIL, IT IS RECOMMENDED TO STOP AND CONTACT MOS FOR ASSISTANCE BEFORE CONTINUING!

Appendix A: Accessing the OAM GUI using the VIP (NOAM / SOAM)

Step	Procedure	Result
<p>1.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>OAM VIP (GUI):</p> <p>1) Launch the approved Web browser Internet Explorer 8.0, 9.0 or 10.0 and connect to the XMI Virtual IP Address (VIP) assigned to OAM site (Primary SDS site or SOAM site) - see* Not applicable for Cloud deployments</p> <p>2) If a certificate error is received, click on the link which states...</p> <p><i>“Continue to this website (not recommended).”</i></p>	

SDS Software Upgrade Guide

Appendix A: Accessing the OAM GUI using the VIP (NOAM / SOAM)

Step	Procedure	Result
<p>2.</p> <p><input type="checkbox"/></p>	<p>OAM VIP (GUI):</p> <p>The user should be presented a login screen similar to the one shown on the right.</p> <p>Login to the GUI using the default user and password.</p>	
<p>3.</p> <p><input type="checkbox"/></p>	<p>OAM VIP:</p> <p>The user should be presented the Main Menu as shown on the right.</p> <p>Verify that the message shown across the top of the right panel indicates that the browser is using the “VIP” connected to the Active OAM server.</p>	 <p>NOTE: The message may show connection to either a “NETWORK OAM&P” or a “SYSTEM OAM” depending on the selected NE.</p>
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>		

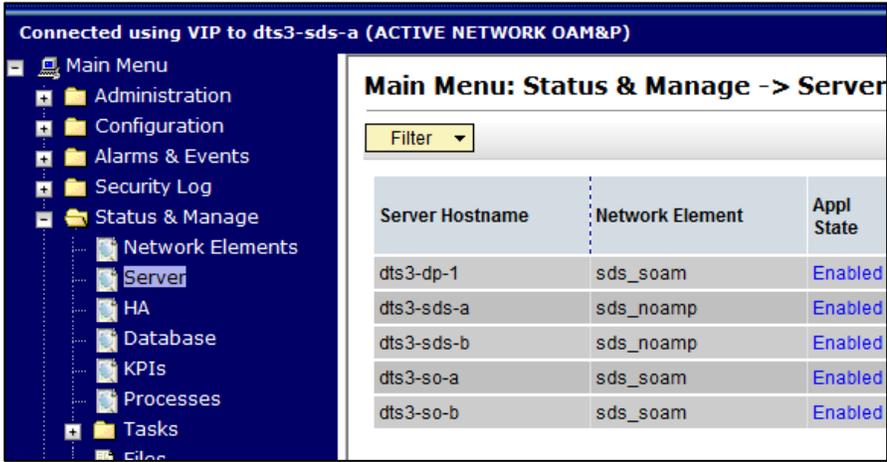
Appendix B Health Check Procedures

This procedure is part of Software Upgrade Preparation and is used to determine the health and status of the SDS network and servers.

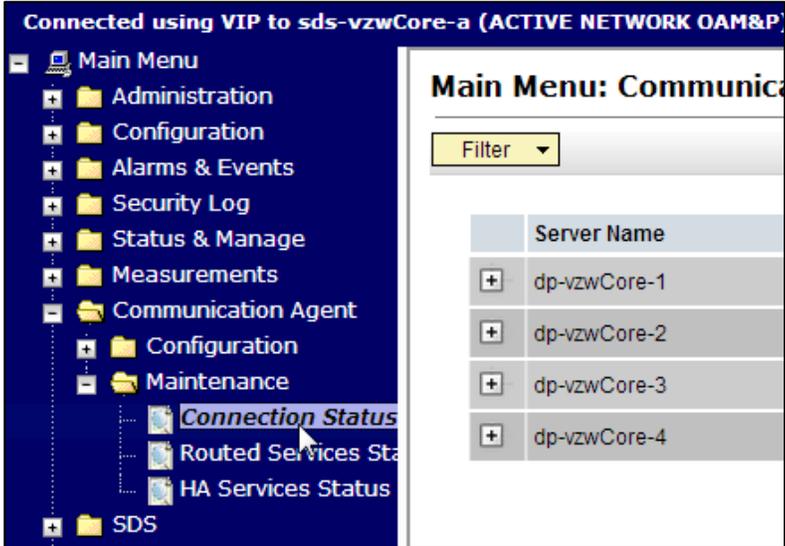
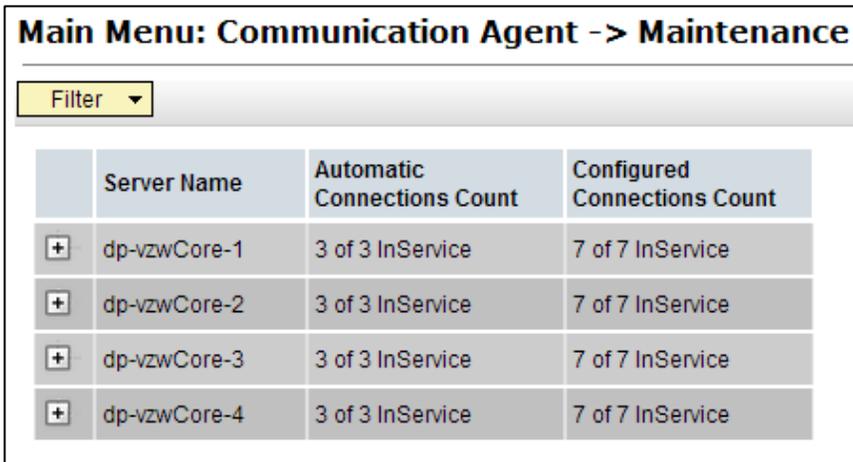
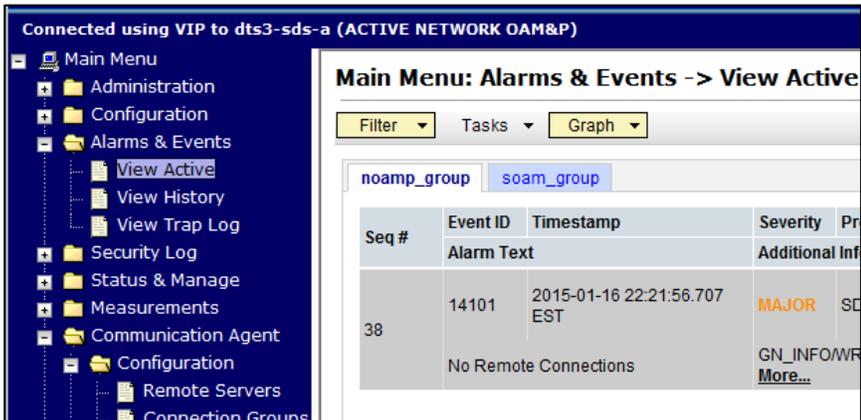
Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

SHOULD ANY STEP IN THIS PROCEDURE FAIL, IT IS RECOMMENDED TO STOP AND CONTACT MOS FOR ASSISTANCE BEFORE CONTINUING!

Appendix B: Health Check Procedures

Step	Procedure	Result																																										
1. <input type="checkbox"/>	Using VIP address, access the Primary SDS GUI.	➤ Using VIP address, access the Primary SDS NOAM GUI as described in Appendix A																																										
2. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Select...</p> <p>Main Menu → Status & Manage → Server</p> <p>...as shown on the right.</p>																																											
3. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Verify that all server statuses show "Norm" for Alarm (Alm), Database (DB), Reporting Status, and Processes (Proc) as shown on the right.</p> <p>If any other server statuses are present, they will appear in a colored box as shown on the right.</p> <p>NOTE: Other server states include Err, Warn, Man and Unk.</p>	<table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>dts3-dp-1</td> <td>sds_soam</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>dts3-sds-a</td> <td>sds_noamp</td> <td>Enabled</td> <td style="background-color: red; color: white;">Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>dts3-sds-b</td> <td>sds_noamp</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>dts3-so-a</td> <td>sds_soam</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>dts3-so-b</td> <td>sds_soam</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table> <p>NOTE: Post-Upgrade, upgraded servers will have an "Alm" status of "Err" due to the following expected alarm.</p> <ul style="list-style-type: none"> • Event ID (s): 32532 (Server Upgrade Pending Accept/Reject) <p><i>This alarm will remain present until the Upgrade is accepted and may be ignored at this time.</i></p>	Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc	dts3-dp-1	sds_soam	Enabled	Norm	Norm	Norm	Norm	dts3-sds-a	sds_noamp	Enabled	Err	Norm	Norm	Norm	dts3-sds-b	sds_noamp	Enabled	Norm	Norm	Norm	Norm	dts3-so-a	sds_soam	Enabled	Norm	Norm	Norm	Norm	dts3-so-b	sds_soam	Enabled	Norm	Norm	Norm	Norm
Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc																																						
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dts3-sds-b	sds_noamp	Enabled	Norm	Norm	Norm	Norm																																						
dts3-so-a	sds_soam	Enabled	Norm	Norm	Norm	Norm																																						
dts3-so-b	sds_soam	Enabled	Norm	Norm	Norm	Norm																																						

Appendix B: Health Check Procedures

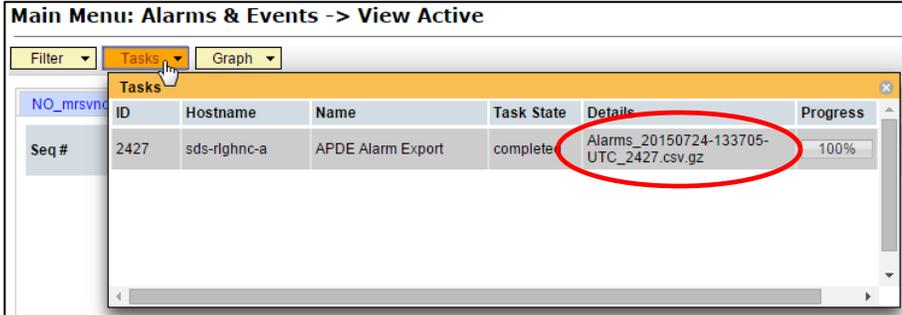
Step	Procedure	Result															
<p>4.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>Select...</p> <p>Main Menu → Communication Agent → Maintenance → Connection Status</p> <p>...as shown on the right.</p>																
<p>5.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>Verify that all “Connection Counts” show equivalent counts (e.g. “n of n” InService for Automatic / “y of y” InService for Configured) as shown to the right.</p> <p>NOTE: DPs will show a “Configured Connections Count” of “1 of 2 InService” for Active/Standby configurations. This is normal and can be ignored.</p>	 <table border="1"> <thead> <tr> <th>Server Name</th> <th>Automatic Connections Count</th> <th>Configured Connections Count</th> </tr> </thead> <tbody> <tr> <td>dp-vzwCore-1</td> <td>3 of 3 InService</td> <td>7 of 7 InService</td> </tr> <tr> <td>dp-vzwCore-2</td> <td>3 of 3 InService</td> <td>7 of 7 InService</td> </tr> <tr> <td>dp-vzwCore-3</td> <td>3 of 3 InService</td> <td>7 of 7 InService</td> </tr> <tr> <td>dp-vzwCore-4</td> <td>3 of 3 InService</td> <td>7 of 7 InService</td> </tr> </tbody> </table>	Server Name	Automatic Connections Count	Configured Connections Count	dp-vzwCore-1	3 of 3 InService	7 of 7 InService	dp-vzwCore-2	3 of 3 InService	7 of 7 InService	dp-vzwCore-3	3 of 3 InService	7 of 7 InService	dp-vzwCore-4	3 of 3 InService	7 of 7 InService
Server Name	Automatic Connections Count	Configured Connections Count															
dp-vzwCore-1	3 of 3 InService	7 of 7 InService															
dp-vzwCore-2	3 of 3 InService	7 of 7 InService															
dp-vzwCore-3	3 of 3 InService	7 of 7 InService															
dp-vzwCore-4	3 of 3 InService	7 of 7 InService															
<p>6.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>Select...</p> <p>Main Menu → Alarm & Events → View Active</p> <p>...as shown on the right.</p>	 <table border="1"> <thead> <tr> <th>Seq #</th> <th>Event ID</th> <th>Timestamp</th> <th>Severity</th> <th>Pr</th> </tr> </thead> <tbody> <tr> <td>38</td> <td>14101</td> <td>2015-01-16 22:21:56.707 EST</td> <td>MAJOR</td> <td>SD</td> </tr> </tbody> </table>	Seq #	Event ID	Timestamp	Severity	Pr	38	14101	2015-01-16 22:21:56.707 EST	MAJOR	SD					
Seq #	Event ID	Timestamp	Severity	Pr													
38	14101	2015-01-16 22:21:56.707 EST	MAJOR	SD													

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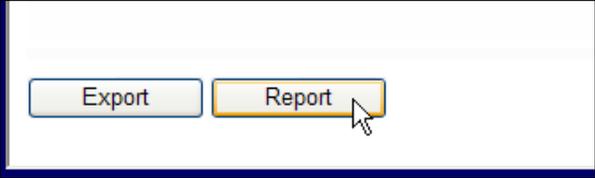
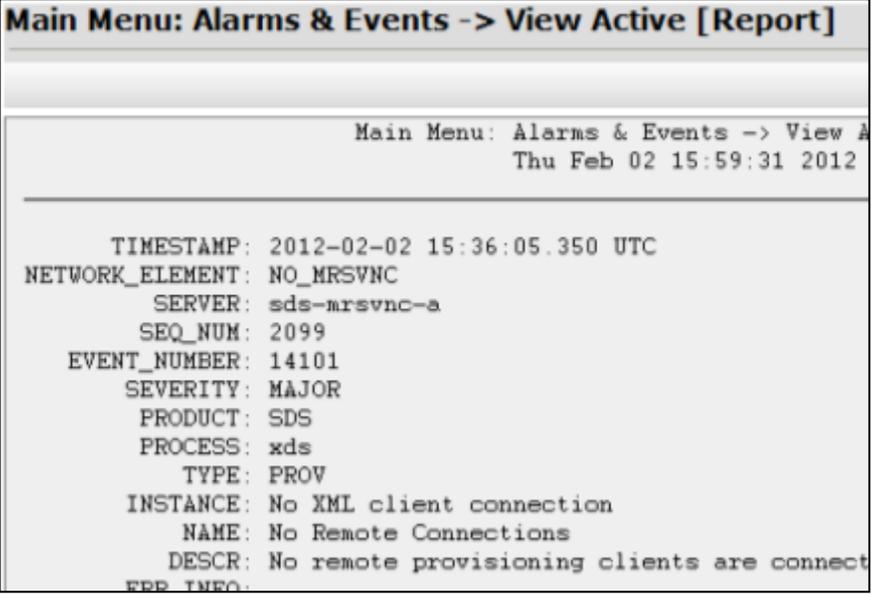
Step	Procedure	Result																					
<p>7.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>View Alarm Status in the right panel.</p>	<p><u>When viewing Pre-Upgrade Status:</u></p> <p>If any Alarms are present, STOP and contact Oracle's Tekelec Customer Care Center for assistance before attempting to continue.</p> <p><u>When viewing Post-Upgrade Status:</u></p> <p>Active NO server may have the following expected alarms: Alarm ID = 10075 (Application processes have been manually stopped) Alarm ID = 10008 (Provisioning Manually Disabled)</p> <p>Servers that still have replication disabled will have the following expected alarm: Alarm ID = 31113 (Replication Manually Disabled)</p> <p>The following alarms may also be seen: Alarm ID = 10010 (Stateful database not yet synchronized with mate database) Alarm ID = 32532 (Server Upgrade Pending Accept/Reject)</p>																					
<p>8.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Select the "Export" dialogue button from the bottom left corner of the screen.</p>																						
<p>9.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Click the "OK" button at the bottom of the screen.</p>	<p>Main Menu: Alarms & Events -> View Active [Export]</p> <table border="1"> <thead> <tr> <th>Attribute</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Export Frequency</td> <td> <input checked="" type="radio"/> Once <input type="radio"/> Fifteen Minutes <input type="radio"/> Hourly <input type="radio"/> Daily <input type="radio"/> Weekly </td> <td>Select how often the data will be writ immediately. Note that the Fifteen Mi when provisioning is enabled. [Defau</td> </tr> <tr> <td>Task Name</td> <td>APDE Alarm Export *</td> <td>Periodic export task name. [Required alphanumeric, minus sign, and space character must not be a minus sign.]</td> </tr> <tr> <td>Description</td> <td></td> <td>Periodic export task description. [Opt alphanumeric, minus sign, and space character must not be a minus sign.]</td> </tr> <tr> <td>Minute</td> <td>0</td> <td>Select the minute of each hour when hourly or fifteen minutes. [Default = 0</td> </tr> <tr> <td>Time of Day</td> <td>12:00 AM</td> <td>Select the time of day when the data weekly. Select from 15-minute incren AM/PM.]</td> </tr> <tr> <td>Day of Week</td> <td> <input checked="" type="radio"/> Sunday <input type="radio"/> Monday <input type="radio"/> Tuesday <input type="radio"/> Wednesday <input type="radio"/> Thursday <input type="radio"/> Friday <input type="radio"/> Saturday </td> <td>Select the day of week when the data [Default: Sunday.]</td> </tr> </tbody> </table> <p style="text-align: right;"><input type="button" value="Ok"/> <input type="button" value="Cancel"/></p>	Attribute	Value	Description	Export Frequency	<input checked="" type="radio"/> Once <input type="radio"/> Fifteen Minutes <input type="radio"/> Hourly <input type="radio"/> Daily <input type="radio"/> Weekly	Select how often the data will be writ immediately. Note that the Fifteen Mi when provisioning is enabled. [Defau	Task Name	APDE Alarm Export *	Periodic export task name. [Required alphanumeric, minus sign, and space character must not be a minus sign.]	Description		Periodic export task description. [Opt alphanumeric, minus sign, and space character must not be a minus sign.]	Minute	0	Select the minute of each hour when hourly or fifteen minutes. [Default = 0	Time of Day	12:00 AM	Select the time of day when the data weekly. Select from 15-minute incren AM/PM.]	Day of Week	<input checked="" type="radio"/> Sunday <input type="radio"/> Monday <input type="radio"/> Tuesday <input type="radio"/> Wednesday <input type="radio"/> Thursday <input type="radio"/> Friday <input type="radio"/> Saturday	Select the day of week when the data [Default: Sunday.]
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Appendix B: Health Check Procedures

Step	Procedure	Result
<p>10.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>The name of the exported Alarms CSV file will appear in the “Tasks” tab in the banner at the top of the right panel.</p>	
<p>11.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>Record the filename of Alarms CSV file generated in the space provided to the right.</p>	<p>Example: Alarms<yyyymmdd>_<hhmmss>.csv</p> <ul style="list-style-type: none"> ➤ Pre ISO Administration: Alarms _____ - _____ .csv.gz ➤ Post ISO Administration: Alarms _____ - _____ .csv.gz ➤ Pre Primary NOAM Upgrade (MW1): Alarms _____ - _____ .csv.gz ➤ Post DR NOAM Upgrade (MW1): Alarms _____ - _____ .csv.gz ➤ Pre SOAM Upgrade (MW2): Alarms _____ - _____ .csv.gz ➤ Post SOAM Upgrade (MW2): Alarms _____ - _____ .csv.gz ➤ Pre SOAM Upgrade (MW3): Alarms _____ - _____ .csv.gz ➤ Post SOAM Upgrade (MW3): Alarms _____ - _____ .csv.gz ➤ Pre SOAM Upgrade (MW4): Alarms _____ - _____ .csv.gz ➤ Post SOAM Upgrade (MW4): Alarms _____ - _____ .csv.gz ➤ Pre SOAM Upgrade (MW5): Alarms _____ - _____ .csv.gz ➤ Post SOAM Upgrade (MW5): Alarms _____ - _____ .csv.gz

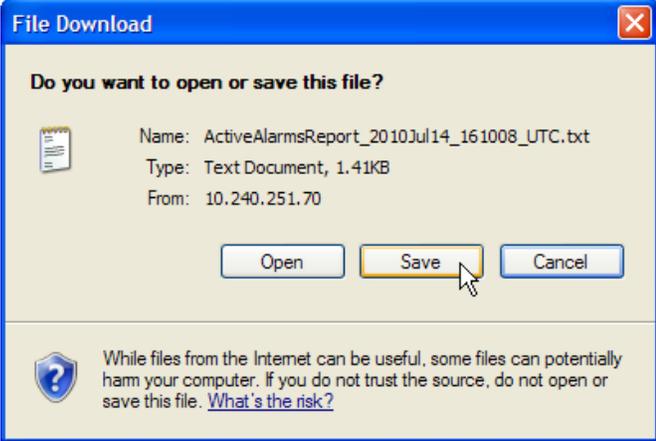
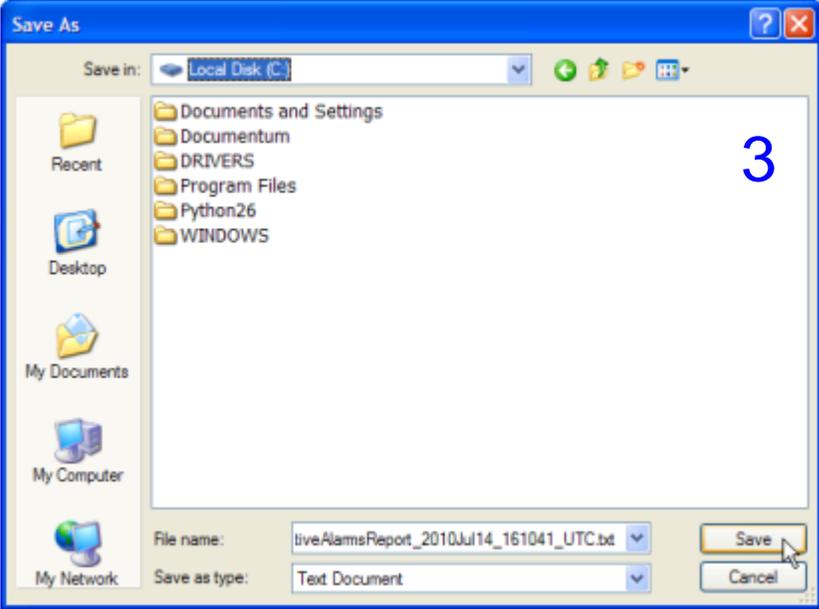
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Appendix B: Health Check Procedures

Step	Procedure	Result
<p>12.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Select the “Report” dialogue button from the bottom left corner of the screen.</p>	
<p>13.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>An Active “Alarms & Events” Report will be generated and displayed in the right panel.</p>	 <pre> Main Menu: Alarms & Events -> View Active [Report] Main Menu: Alarms & Events -> View Active Thu Feb 02 15:59:31 2012 TIMESTAMP: 2012-02-02 15:36:05.350 UTC NETWORK_ELEMENT: NO_MRSVNC SERVER: sds-mrsvnc-a SEQ_NUM: 2099 EVENT_NUMBER: 14101 SEVERITY: MAJOR PRODUCT: SDS PROCESS: xds TYPE: PROV INSTANCE: No XML client connection NAME: No Remote Connections DESCR: No remote provisioning clients are connect ERR INFO: </pre>

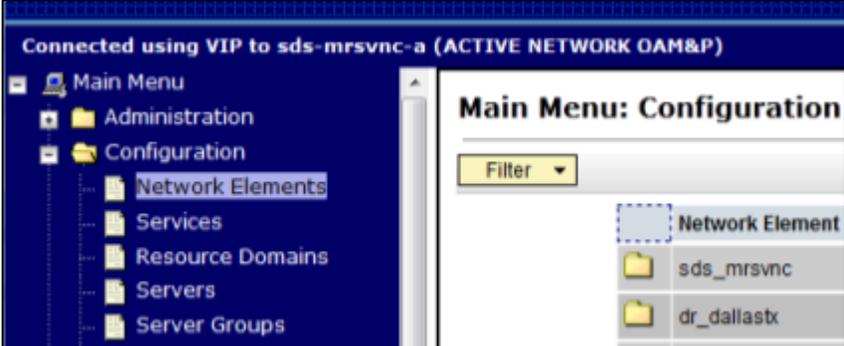
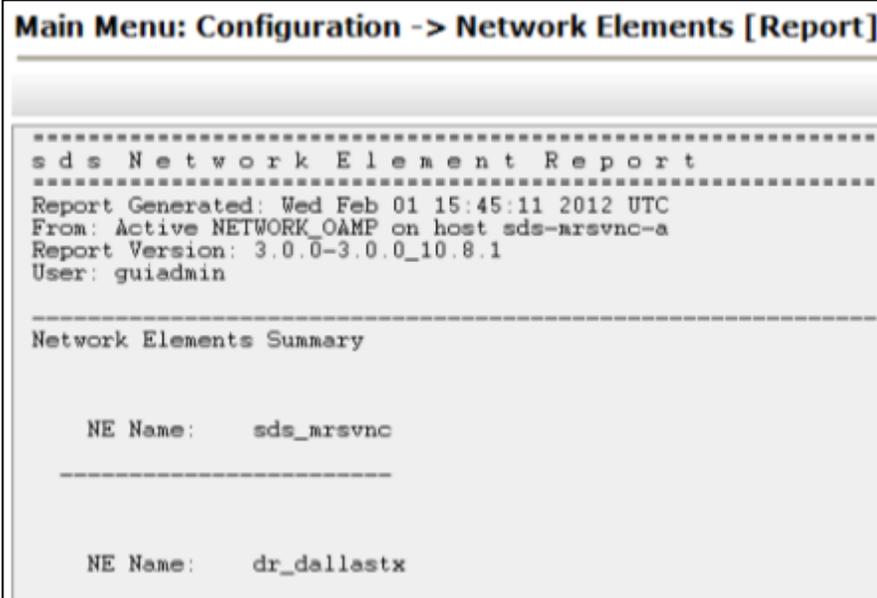
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Step	Procedure	Result
<p>14.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>1) Select the “Save” dialogue button from the bottom/middle of the right panel.</p> <p>2) Click the “Save” dialogue button on the File Download pop-up box.</p> <p>3) Select a directory on the local disk drive to store the Active “Alarms & Events” Report file and click the “Save” dialogue button.</p>	 <p>1</p>  <p>2</p>  <p>3</p>

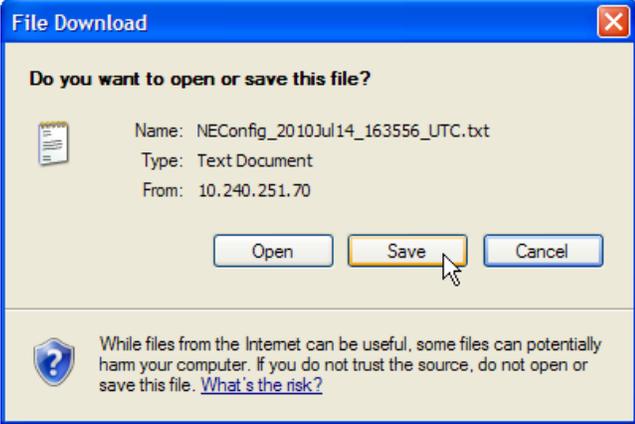
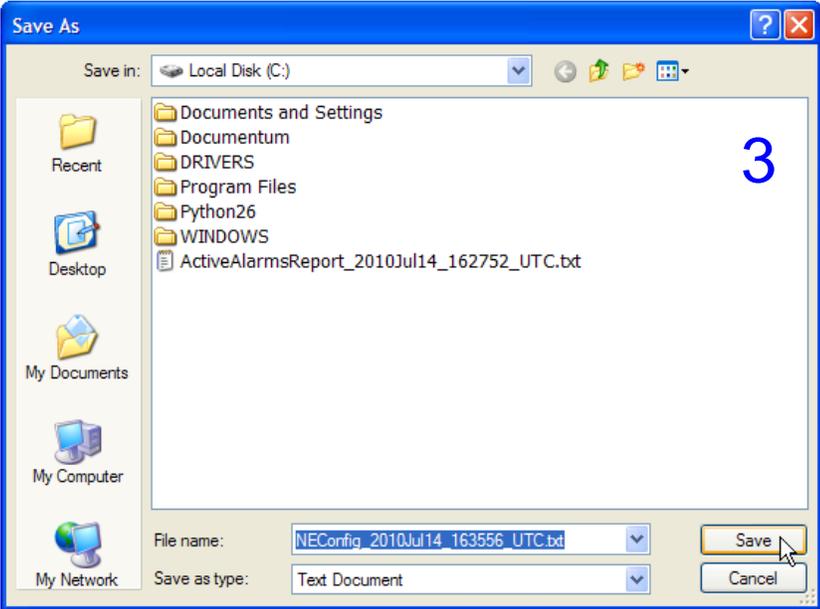
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Step	Procedure	Result
<p>15.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Select...</p> <p>Main Menu → Configuration → Network Elements</p> <p>...as shown on the right.</p>	
<p>16.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Select the “Report” dialogue button from the bottom left corner of the screen.</p>	
<p>17.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>A “Network Element Report” will be generated and displayed in the right panel.</p>	 <pre> Main Menu: Configuration -> Network Elements [Report] ----- sds Network Element Report ----- Report Generated: Wed Feb 01 15:45:11 2012 UTC From: Active NETWORK_OAMP on host sds-arsvnc-a Report Version: 3.0.0-3.0.0_10.8.1 User: guiadmin ----- Network Elements Summary NE Name: sds_mrsvnc ----- NE Name: dr_dallastx </pre>

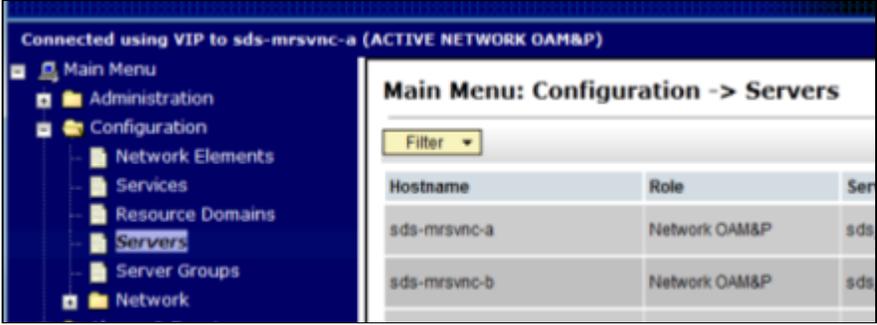
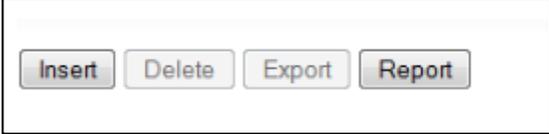
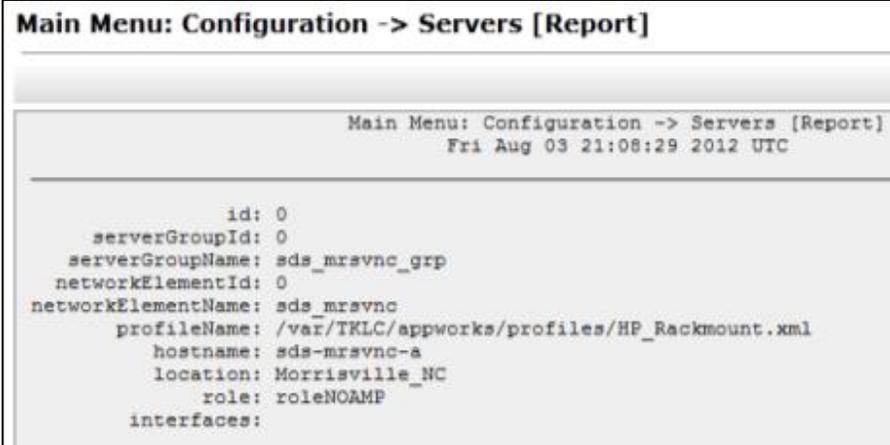
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Appendix B: Health Check Procedures

Step	Procedure	Result
<p>18.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>1) Select the “Save” dialogue button from the bottom/middle of the right panel.</p> <p>2) Click the “Save” dialogue button on the File Download pop-up box.</p> <p>3) Select a directory on the local disk drive to store the “Network Elements Report” file and click the “Save” dialogue button.</p>	 <p>1</p>  <p>2</p>  <p>3</p>

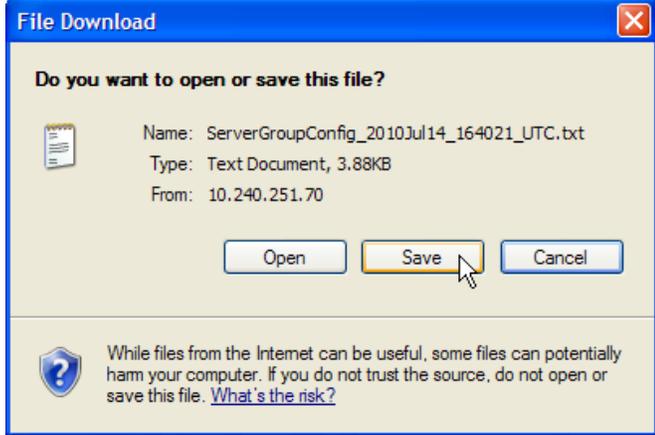
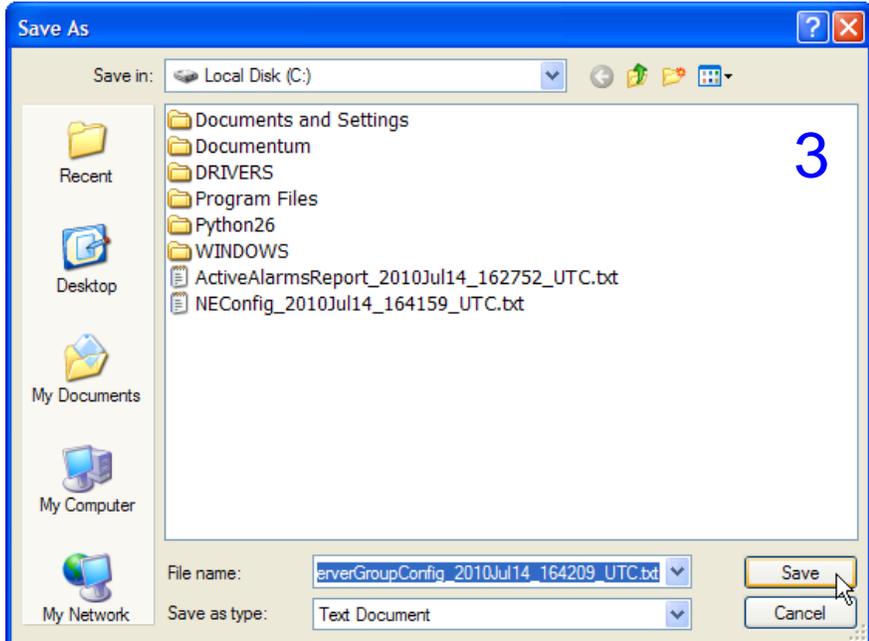
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Appendix B: Health Check Procedures

Step	Procedure	Result									
<p>19.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Select...</p> <p>Main Menu → Configuration → Servers</p> <p>...as shown on the right.</p>	 <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>Ser</th> </tr> </thead> <tbody> <tr> <td>sds-mrsvnc-a</td> <td>Network OAM&P</td> <td>sds</td> </tr> <tr> <td>sds-mrsvnc-b</td> <td>Network OAM&P</td> <td>sds</td> </tr> </tbody> </table>	Hostname	Role	Ser	sds-mrsvnc-a	Network OAM&P	sds	sds-mrsvnc-b	Network OAM&P	sds
Hostname	Role	Ser									
sds-mrsvnc-a	Network OAM&P	sds									
sds-mrsvnc-b	Network OAM&P	sds									
<p>20.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Select the “Report” dialogue button from the bottom left corner of the screen.</p>										
<p>21.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>A “Server Report” will be generated and displayed in the right panel.</p>	 <pre> Main Menu: Configuration -> Servers [Report] Fri Aug 03 21:08:29 2012 UTC id: 0 serverGroupId: 0 serverGroupName: sds_mrsvnc_grp networkElementId: 0 networkElementName: sds_mrsvnc profileName: /var/TKLC/appworks/profiles/HP_Rackmount.xml hostname: sds-mrsvnc-a location: Morrisville_NC role: roleNOAMP interfaces: </pre>									

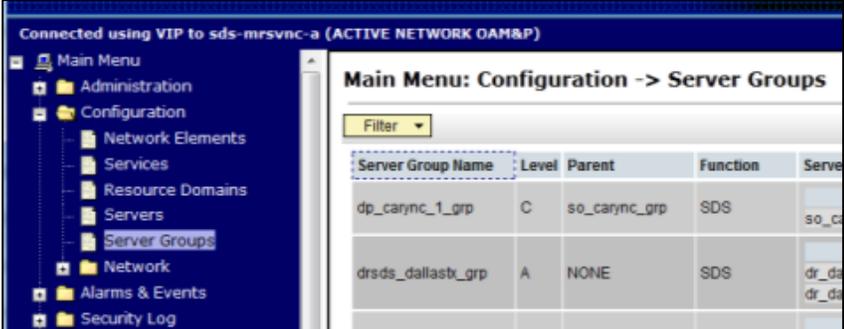
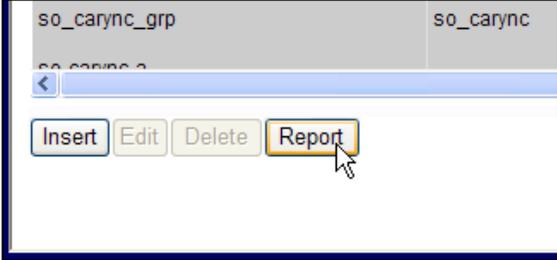
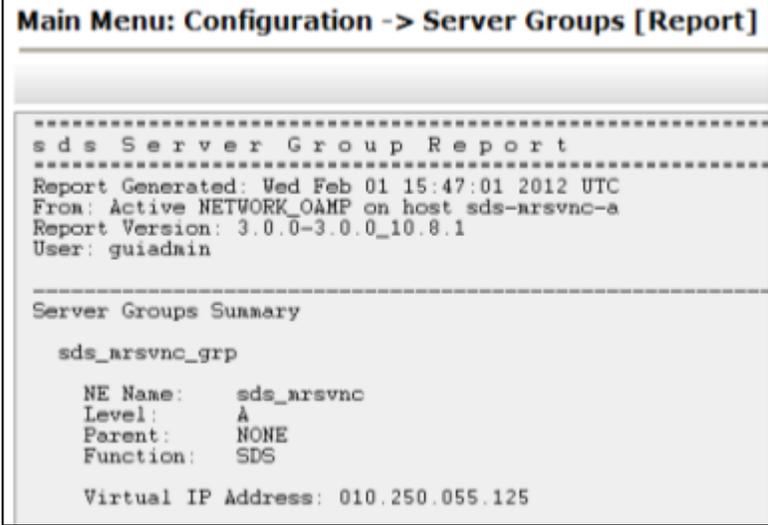
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Step	Procedure	Result
<p>22.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>1) Select the “Save” dialogue button from the bottom/middle of the right panel.</p> <p>2) Click the “Save” dialogue button on the File Download pop-up box.</p> <p>3) Select a directory on the local disk drive to store the “Server Group Report” file and click the “Save” dialogue button.</p>	 <p>1</p>  <p>2</p>  <p>3</p>

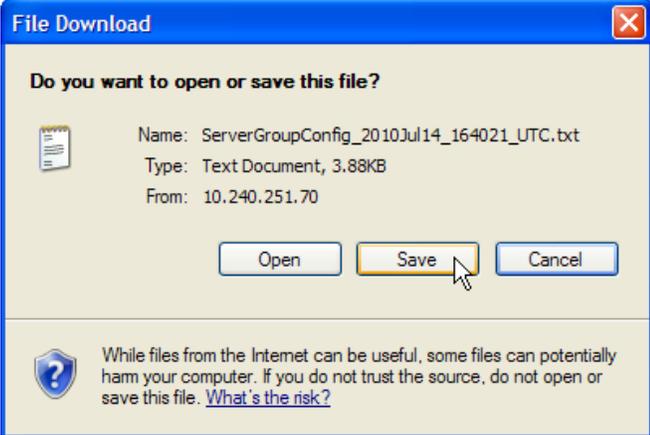
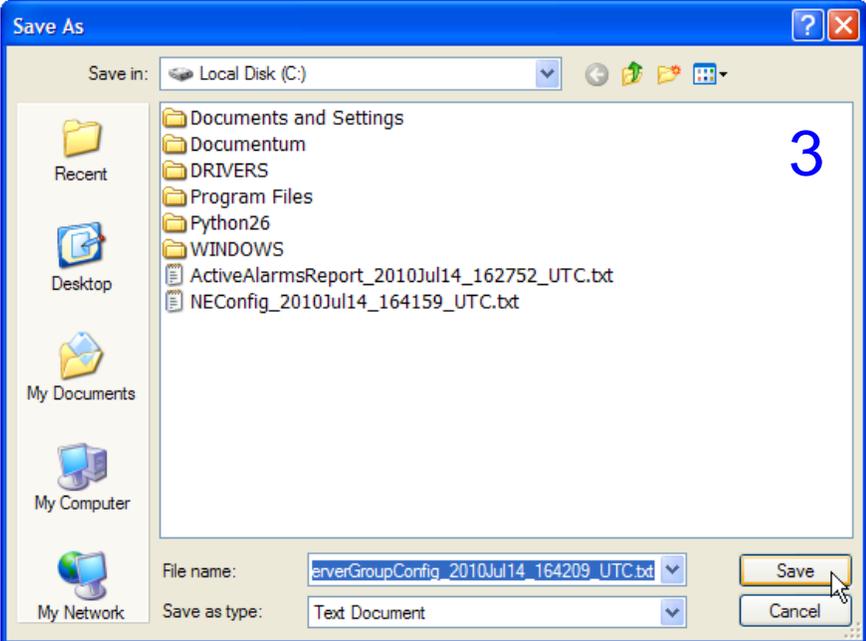
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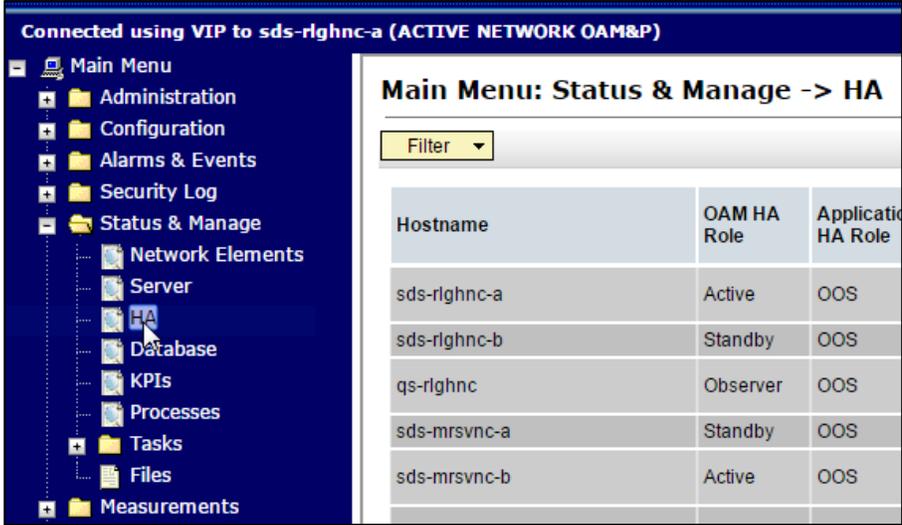
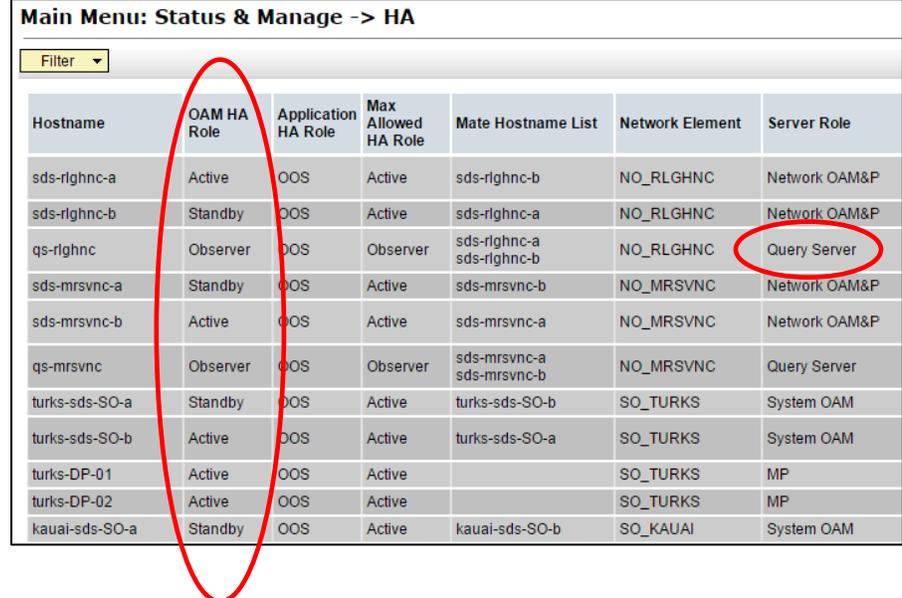
Step	Procedure	Result															
<p>23.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>Select...</p> <p>Main Menu → Configuration → Server Groups</p> <p>...as shown on the right.</p>	 <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Serve</th> </tr> </thead> <tbody> <tr> <td>dp_carync_1_grp</td> <td>C</td> <td>so_carync_grp</td> <td>SDS</td> <td>so_c...</td> </tr> <tr> <td>drsds_dallasb_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>dr_da dr_da</td> </tr> </tbody> </table>	Server Group Name	Level	Parent	Function	Serve	dp_carync_1_grp	C	so_carync_grp	SDS	so_c...	drsds_dallasb_grp	A	NONE	SDS	dr_da dr_da
Server Group Name	Level	Parent	Function	Serve													
dp_carync_1_grp	C	so_carync_grp	SDS	so_c...													
drsds_dallasb_grp	A	NONE	SDS	dr_da dr_da													
<p>24.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>Select the “Report” dialogue button from the bottom left corner of the screen.</p>																
<p>25.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP (GUI):</p> <p>A “Server Group Report” will be generated and displayed in the right panel.</p>	 <pre> sds Server Group Report ----- Report Generated: Wed Feb 01 15:47:01 2012 UTC From: Active NETWORK_OAMP on host sds-arsvnc-a Report Version: 3.0.0-3.0.0_10.8.1 User: guiadmin ----- Server Groups Summary sds_arsvnc_grp NE Name: sds_arsvnc Level: A Parent: NONE Function: SDS Virtual IP Address: 010.250.055.125 </pre>															

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Step	Procedure	Result
<p>26.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>1) Select the “Save” dialogue button from the bottom/middle of the right panel.</p> <p>2) Click the “Save” dialogue button on the File Download pop-up box.</p> <p>3) Select a directory on the local disk drive to store the “Server Group Report” file and click the “Save” dialogue button.</p>	 <p>1</p>  <p>2</p>  <p>3</p>

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Step	Procedure	Result																																																																																				
<p>27.</p> <p><input type="checkbox"/></p>	<p>Provide the saved files to Oracle's Customer Care Center for Health Check Analysis.</p>	<ul style="list-style-type: none"> • If executing this procedure as a pre or post Upgrade Health Check (HC1/HC2/HC3), provide the following saved files to Oracle's Customer Care Center for proper Health Check Analysis: <ul style="list-style-type: none"> ○ Active "Alarms & Events" Report [Appendix B, Step 14] ○ Network Elements Report [Appendix B, Step 18] ○ Server Report [Appendix B, Step 22] ○ Server Group Report [Appendix B, Step 26] 																																																																																				
<p>28.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>Select...</p> <p>Main Menu → Status & Manage → HA</p> <p>...as shown on the right.</p>																																																																																					
<p>29.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>1) Verify that the "OAM HA Role" for all servers shows either "Active" or "Standby" as shown to the right.</p> <p>NOTE: An "HA Status" of "Observer" is allowed when Server Role is "Query Server".</p>	 <table border="1"> <thead> <tr> <th>Hostname</th> <th>OAM HA Role</th> <th>Application HA Role</th> <th>Max Allowed HA Role</th> <th>Mate Hostname List</th> <th>Network Element</th> <th>Server Role</th> </tr> </thead> <tbody> <tr> <td>sds-righnc-a</td> <td>Active</td> <td>OOS</td> <td>Active</td> <td>sds-righnc-b</td> <td>NO_RLGHNC</td> <td>Network OAM&P</td> </tr> <tr> <td>sds-righnc-b</td> <td>Standby</td> <td>OOS</td> <td>Active</td> <td>sds-righnc-a</td> <td>NO_RLGHNC</td> <td>Network OAM&P</td> </tr> <tr> <td>qs-righnc</td> <td>Observer</td> <td>OOS</td> <td>Observer</td> <td>sds-righnc-a sds-righnc-b</td> <td>NO_RLGHNC</td> <td>Query Server</td> </tr> <tr> <td>sds-mrsvnc-a</td> <td>Standby</td> <td>OOS</td> <td>Active</td> <td>sds-mrsvnc-b</td> <td>NO_MRSVNC</td> <td>Network OAM&P</td> </tr> <tr> <td>sds-mrsvnc-b</td> <td>Active</td> <td>OOS</td> <td>Active</td> <td>sds-mrsvnc-a</td> <td>NO_MRSVNC</td> <td>Network OAM&P</td> </tr> <tr> <td>qs-mrsvnc</td> <td>Observer</td> <td>OOS</td> <td>Observer</td> <td>sds-mrsvnc-a sds-mrsvnc-b</td> <td>NO_MRSVNC</td> <td>Query Server</td> </tr> <tr> <td>turks-sds-SO-a</td> <td>Standby</td> <td>OOS</td> <td>Active</td> <td>turks-sds-SO-b</td> <td>SO_TURKS</td> <td>System OAM</td> </tr> <tr> <td>turks-sds-SO-b</td> <td>Active</td> <td>OOS</td> <td>Active</td> <td>turks-sds-SO-a</td> <td>SO_TURKS</td> <td>System OAM</td> </tr> <tr> <td>turks-DP-01</td> <td>Active</td> <td>OOS</td> <td>Active</td> <td></td> <td>SO_TURKS</td> <td>MP</td> </tr> <tr> <td>turks-DP-02</td> <td>Active</td> <td>OOS</td> <td>Active</td> <td></td> <td>SO_TURKS</td> <td>MP</td> </tr> <tr> <td>kauai-sds-SO-a</td> <td>Standby</td> <td>OOS</td> <td>Active</td> <td>kauai-sds-SO-b</td> <td>SO_KAUAI</td> <td>System OAM</td> </tr> </tbody> </table>	Hostname	OAM HA Role	Application HA Role	Max Allowed HA Role	Mate Hostname List	Network Element	Server Role	sds-righnc-a	Active	OOS	Active	sds-righnc-b	NO_RLGHNC	Network OAM&P	sds-righnc-b	Standby	OOS	Active	sds-righnc-a	NO_RLGHNC	Network OAM&P	qs-righnc	Observer	OOS	Observer	sds-righnc-a sds-righnc-b	NO_RLGHNC	Query Server	sds-mrsvnc-a	Standby	OOS	Active	sds-mrsvnc-b	NO_MRSVNC	Network OAM&P	sds-mrsvnc-b	Active	OOS	Active	sds-mrsvnc-a	NO_MRSVNC	Network OAM&P	qs-mrsvnc	Observer	OOS	Observer	sds-mrsvnc-a sds-mrsvnc-b	NO_MRSVNC	Query Server	turks-sds-SO-a	Standby	OOS	Active	turks-sds-SO-b	SO_TURKS	System OAM	turks-sds-SO-b	Active	OOS	Active	turks-sds-SO-a	SO_TURKS	System OAM	turks-DP-01	Active	OOS	Active		SO_TURKS	MP	turks-DP-02	Active	OOS	Active		SO_TURKS	MP	kauai-sds-SO-a	Standby	OOS	Active	kauai-sds-SO-b	SO_KAUAI	System OAM
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SDS Software Upgrade Guide

Appendix B: Health Check Procedures

Step	Procedure	Result
30. <input type="checkbox"/>	Primary SDS NOAM VIP: Verify the “ OAM HA Role ” for all remaining servers on the [Main Menu: Status & Manage → HA] screen.	<ul style="list-style-type: none">• Scroll thru each page of the [Main Menu: Status & Manage → HA] screen until the “OAM HA Role” for has been verified for all servers in the topology.
THIS PROCEDURE HAS BEEN COMPLETED		

Appendix C Upgrade Server on SDS 5.0

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

SHOULD ANY STEP IN THIS PROCEDURE FAIL, IT IS RECOMMENDED TO STOP AND CONTACT MOS FOR ASSISTANCE BEFORE CONTINUING!

Appendix C: Upgrade Server on SDS 5.0

Step	Procedure	Result																														
1. <input type="checkbox"/>	Using VIP address, access the Primary SDS NOAM GUI .	<ul style="list-style-type: none"> Using VIP address, access the Primary SDS NOAM GUI as described in Appendix A. 																														
2. <input type="checkbox"/>	<p>SDS 5.0 only</p> <p>Primary SDS NOAM VIP:</p> <p>1) Select... Main Menu → Administration → Software Management → Upgrade</p> <p>2) Using the vertical scroll bar in the right panel, scroll to the row containing the hostname of the server to be upgraded.</p> <p>3) Verify that the Upgrade State shows “Not Ready”.</p> <p>4) Click the “Prepare” dialogue button located in the bottom left of the right panel.</p>	<table border="1"> <caption>Main Menu: Administration -> Software Management</caption> <thead> <tr> <th>Hostname</th> <th>Server Status</th> <th>Server Role</th> <th>Function</th> <th>Upgrade State</th> </tr> </thead> <tbody> <tr> <td>dts3-sds-a</td> <td>Active</td> <td>Network OAM&P</td> <td>OAM&P</td> <td>Not Ready</td> </tr> <tr> <td>dts3-sds-b</td> <td>Active</td> <td>Network OAM&P</td> <td>OAM&P</td> <td>Not Ready</td> </tr> <tr> <td>dts3-qs-1</td> <td>Norm</td> <td>Query Server</td> <td>QS</td> <td>Not Ready</td> </tr> <tr> <td>dts3-drno-a</td> <td>Active</td> <td>Network OAM&P</td> <td>OAM&P</td> <td>Not Ready</td> </tr> <tr> <td>dts3-so-a</td> <td>Active</td> <td>System OAM</td> <td>OAM</td> <td>Not Ready</td> </tr> </tbody> </table>	Hostname	Server Status	Server Role	Function	Upgrade State	dts3-sds-a	Active	Network OAM&P	OAM&P	Not Ready	dts3-sds-b	Active	Network OAM&P	OAM&P	Not Ready	dts3-qs-1	Norm	Query Server	QS	Not Ready	dts3-drno-a	Active	Network OAM&P	OAM&P	Not Ready	dts3-so-a	Active	System OAM	OAM	Not Ready
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dts3-so-a	Active	System OAM	OAM	Not Ready																												
3. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>The user should be presented with the Upgrade [Make Ready] screen.</p> <p>Click on “Ok” dialogue button.</p>	<table border="1"> <caption>Main Menu: Administration -> Software Management -> Upgrade</caption> <thead> <tr> <th>Hostname</th> <th>Action</th> <th>HA Status</th> </tr> </thead> <tbody> <tr> <td>dts3-qs-1</td> <td>Prepare</td> <td> <table border="1"> <tr> <th>Max HA Role</th> <th>Active Mates</th> <th>Standby Mates</th> </tr> <tr> <td>Observer</td> <td>dts3-sds-a</td> <td>dts3-sds-b</td> </tr> </table> </td> </tr> </tbody> </table>	Hostname	Action	HA Status	dts3-qs-1	Prepare	<table border="1"> <tr> <th>Max HA Role</th> <th>Active Mates</th> <th>Standby Mates</th> </tr> <tr> <td>Observer</td> <td>dts3-sds-a</td> <td>dts3-sds-b</td> </tr> </table>	Max HA Role	Active Mates	Standby Mates	Observer	dts3-sds-a	dts3-sds-b																		
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SDS Software Upgrade Guide

Appendix C: Upgrade Server on SDS 5.0

Step	Procedure	Result																																								
<p>4.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>1) Select...</p> <p>Main Menu → Administration → Software Management → Upgrade</p> <p>2) Using the vertical scroll bar in the right panel, scroll to the row containing the hostname of the server to be upgraded.</p> <p>3) Verify that the Upgrade State shows “Ready”.</p> <p>NOTE: If the Upgrade State fails to show “Ready”, the user may need to repeat above sub-steps</p> <p>3) Click the “Initiate” dialogue button</p>	<p>Main Menu: Administration -> Software Management -> Upgr</p> <p>Filter Tasks</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Server Status</th> <th>Server Role</th> <th>Function</th> <th>Upgrade State</th> </tr> </thead> <tbody> <tr> <td></td> <td>OAM Max HA Role</td> <td colspan="2">Network Element</td> <td>Start Time</td> </tr> <tr> <td></td> <td>Max Allowed HA Role</td> <td colspan="2">Application Version</td> <td>Upgrade ISO</td> </tr> <tr> <td>dts3-sds-a</td> <td>Err Active Active</td> <td>Network OAM&P sds_noamp</td> <td>OAM&P</td> <td>Not Ready</td> </tr> <tr> <td>dts3-sds-b</td> <td>Norm Standby Active</td> <td>Network OAM&P sds_noamp</td> <td>OAM&P</td> <td>Not Ready</td> </tr> <tr> <td>dts3-qs-1</td> <td>Warn Observer Obsrvr</td> <td>Query Server sds_noamp</td> <td>QS</td> <td>Ready</td> </tr> <tr> <td>dts3-drno-a</td> <td>Norm Active Active</td> <td>Network OAM&P sds_dr_noamp</td> <td>OAM&P</td> <td>Not Ready</td> </tr> <tr> <td></td> <td>Norm</td> <td>System OAM</td> <td>OAM</td> <td>Not Ready</td> </tr> </tbody> </table> <p>Backup ISO Cleanup Prepare Initiate Complete Accept Report</p>	Hostname	Server Status	Server Role	Function	Upgrade State		OAM Max HA Role	Network Element		Start Time		Max Allowed HA Role	Application Version		Upgrade ISO	dts3-sds-a	Err Active Active	Network OAM&P sds_noamp	OAM&P	Not Ready	dts3-sds-b	Norm Standby Active	Network OAM&P sds_noamp	OAM&P	Not Ready	dts3-qs-1	Warn Observer Obsrvr	Query Server sds_noamp	QS	Ready	dts3-drno-a	Norm Active Active	Network OAM&P sds_dr_noamp	OAM&P	Not Ready		Norm	System OAM	OAM	Not Ready
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<p>5.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>1) Verify that the Application Version shows the <source_release></p> <p>2) Using the pull-down menu, select the <target_release></p> <p>3) Click the “Start Upgrade” dialogue button</p>	<table border="1"> <thead> <tr> <th>Hostname</th> <th>Network Element</th> <th>Server Group</th> <th>Application Version</th> </tr> </thead> <tbody> <tr> <td>dts3-qs-1</td> <td>sds_noamp</td> <td>NOAMP_group</td> <td>5.0.1-50.23.0</td> </tr> </tbody> </table> <p>SDS-7.1.0.0.0_71.2.0-x86_64.iso Cancel Start Upgrade</p>	Hostname	Network Element	Server Group	Application Version	dts3-qs-1	sds_noamp	NOAMP_group	5.0.1-50.23.0																																
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Appendix C: Upgrade Server on SDS 5.0

Step	Procedure	Result																																				
6. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>The user is returned to the...</p> <p>Main Menu → Administration → Software Management → Upgrade</p> <p>...screen as shown on the right.</p> <p>1) Scroll to the row containing the hostname of the server to be upgraded.</p> <p>2) Verify that the Upgrade State shows “Upgrading”.</p>	<p>Main Menu: Administration -> Software Management -> Upgrade</p> <p>Filter Tasks</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Server Status</th> <th>Server Role</th> <th>Function</th> <th>Upgrade State</th> </tr> <tr> <td></td> <th>OAM Max HA Role</th> <th>Network Element</th> <td></td> <th>Start Time</th> </tr> <tr> <td></td> <th>Max Allowed HA Role</th> <th>Application Version</th> <td></td> <th>Upgrade ISO</th> </tr> </thead> <tbody> <tr> <td>dts3-sds-a</td> <td>Err Active Active</td> <td>Network OAM&P sds_noamp 5.0.1-50.23.0</td> <td>OAM&P</td> <td>Not Ready</td> </tr> <tr> <td>dts3-sds-b</td> <td>Err Standby Standby</td> <td>Network OAM&P sds_noamp 5.0.1-50.23.0</td> <td>OAM&P</td> <td>Ready</td> </tr> <tr> <td>dts3-qs-1</td> <td>Unk OOS Obsvr</td> <td>Query Server sds_noamp</td> <td>QS</td> <td>Upgrading 2015-02-12 22:17: SDS-7.1.0.0.0_71.</td> </tr> <tr> <td>dts3-drno-a</td> <td>Err Active Active</td> <td>Network OAM&P sds_dr_noamp 5.0.1-50.23.0</td> <td>OAM&P</td> <td>Not Ready</td> </tr> </tbody> </table> <p>Backup ISO Cleanup Prepare Initiate Complete Accept Report</p> <p>NOTE: As a result of the server undergoing upgrade, several alarms related to “DB Replication” (Event IDs 31101, 31102, 31106, 31107, and 31114) may appear and remain present until the upgrade has been completed.</p>	Hostname	Server Status	Server Role	Function	Upgrade State		OAM Max HA Role	Network Element		Start Time		Max Allowed HA Role	Application Version		Upgrade ISO	dts3-sds-a	Err Active Active	Network OAM&P sds_noamp 5.0.1-50.23.0	OAM&P	Not Ready	dts3-sds-b	Err Standby Standby	Network OAM&P sds_noamp 5.0.1-50.23.0	OAM&P	Ready	dts3-qs-1	Unk OOS Obsvr	Query Server sds_noamp	QS	Upgrading 2015-02-12 22:17: SDS-7.1.0.0.0_71.	dts3-drno-a	Err Active Active	Network OAM&P sds_dr_noamp 5.0.1-50.23.0	OAM&P	Not Ready	
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7. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>1) Select... Main Menu → Administration → Software Management → Upgrade</p> <p>2) The Upgrade State field should be Upgrading</p> <p>3) The Status Message field should contain status IN_PROGRESS_STATE</p>	<p>Main Menu: Administration -> Software Management -> Upgrade</p> <p>Filter Tasks</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Server Status</th> <th>Server Role</th> <th>Function</th> <th>Upgrade State</th> <th>Status Message</th> </tr> <tr> <td></td> <th>OAM Max HA Role</th> <th>Network Element</th> <td></td> <th>Start Time</th> <th>Finish Time</th> </tr> <tr> <td></td> <th>Max Allowed HA Role</th> <th>Application Version</th> <td></td> <th>Upgrade ISO</th> <td></td> </tr> </thead> <tbody> <tr> <td>dts3-sds-a</td> <td>Err Standby Active</td> <td>Network OAM&P sds_noamp 5.0.1-50.23.0</td> <td>OAM&P</td> <td>Not Ready</td> <td></td> </tr> <tr> <td>dts3-sds-b</td> <td>Err Active Active</td> <td>Network OAM&P sds_noamp 5.0.1-50.23.0</td> <td>OAM&P</td> <td>Not Ready</td> <td></td> </tr> <tr> <td>dts3-qs-1</td> <td>Unk OOS Obsvr</td> <td>Query Server sds_noamp</td> <td>QS</td> <td>Upgrading 2015-02-13 18:23:46 SDS-7.1.0.0.0_71.2.0-x86_64.iso</td> <td>Upgrade: retrieved TPD task state for IP: 169.254.100.13 IN_PROGRESS_STATE</td> </tr> </tbody> </table>	Hostname	Server Status	Server Role	Function	Upgrade State	Status Message		OAM Max HA Role	Network Element		Start Time	Finish Time		Max Allowed HA Role	Application Version		Upgrade ISO		dts3-sds-a	Err Standby Active	Network OAM&P sds_noamp 5.0.1-50.23.0	OAM&P	Not Ready		dts3-sds-b	Err Active Active	Network OAM&P sds_noamp 5.0.1-50.23.0	OAM&P	Not Ready		dts3-qs-1	Unk OOS Obsvr	Query Server sds_noamp	QS	Upgrading 2015-02-13 18:23:46 SDS-7.1.0.0.0_71.2.0-x86_64.iso	Upgrade: retrieved TPD task state for IP: 169.254.100.13 IN_PROGRESS_STATE
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Step	Procedure	Result																														
8.	<p>Primary SDS NOAM VIP:</p> <p>When the server initiates a post-upgrade reboot, the Upgrade State field should be Upgrading</p>	<table border="1"> <thead> <tr> <th>Hostname</th> <th>Server Status</th> <th>Server Role</th> <th>Function</th> <th>Upgrade State</th> <th>Status Message</th> </tr> <tr> <td></td> <td>OAM Max HA Role</td> <td>Network Element</td> <td></td> <td>Start Time</td> <td>Finish Time</td> </tr> <tr> <td></td> <td>Max Allowed HA Role</td> <td>Application Version</td> <td></td> <td>Upgrade ISO</td> <td></td> </tr> </thead> <tbody> <tr> <td>dts3-sds-a</td> <td>Err Active Active</td> <td>Network OAM&P sds_noamp 5.0.1-50.23.0</td> <td>OAM&P</td> <td>Not Ready</td> <td></td> </tr> <tr> <td>dts3-sds-b</td> <td>Unk OOS Standby</td> <td>Network OAM&P sds_noamp</td> <td>OAM&P</td> <td>Upgrading</td> <td>Upgrade: Warn: failed to get TPD task state for IP: 169.254.100.12, server could be rebooting. 2015-02-12 22:30:28 2015-02-12 23:06:20 SDS-7.1.0.0.0_71.2.0-x86_64.iso</td> </tr> </tbody> </table>	Hostname	Server Status	Server Role	Function	Upgrade State	Status Message		OAM Max HA Role	Network Element		Start Time	Finish Time		Max Allowed HA Role	Application Version		Upgrade ISO		dts3-sds-a	Err Active Active	Network OAM&P sds_noamp 5.0.1-50.23.0	OAM&P	Not Ready		dts3-sds-b	Unk OOS Standby	Network OAM&P sds_noamp	OAM&P	Upgrading	Upgrade: Warn: failed to get TPD task state for IP: 169.254.100.12, server could be rebooting. 2015-02-12 22:30:28 2015-02-12 23:06:20 SDS-7.1.0.0.0_71.2.0-x86_64.iso
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dts3-sds-b	Unk OOS Standby	Network OAM&P sds_noamp	OAM&P	Upgrading	Upgrade: Warn: failed to get TPD task state for IP: 169.254.100.12, server could be rebooting. 2015-02-12 22:30:28 2015-02-12 23:06:20 SDS-7.1.0.0.0_71.2.0-x86_64.iso																											
9.	<p>Primary SDS 5.0 Site VIP:</p> <p>After the post-upgrade reboot has been completed, the Upgrade State field should be Success</p>	<table border="1"> <thead> <tr> <th>Hostname</th> <th>Server Status</th> <th>Server Role</th> <th>Function</th> <th>Upgrade State</th> <th>Status Message</th> </tr> <tr> <td></td> <td>OAM Max HA Role</td> <td>Network Element</td> <td></td> <td>Start Time</td> <td>Finish Time</td> </tr> <tr> <td></td> <td>Max Allowed HA Role</td> <td>Application Version</td> <td></td> <td>Upgrade ISO</td> <td></td> </tr> </thead> <tbody> <tr> <td>dts3-sds-a</td> <td>Err Active Active</td> <td>Network OAM&P sds_noamp 5.0.1-50.23.0</td> <td>OAM&P</td> <td>Not Ready</td> <td></td> </tr> <tr> <td>dts3-sds-b</td> <td>Unk OOS Standby</td> <td>Network OAM&P sds_noamp</td> <td>OAM&P</td> <td>Success</td> <td>Upgrade: Task result for IP: 169.254.100.12, SUCCESS 2015-02-12 22:30:28 2015-02-12 23:06:51 SDS-7.1.0.0.0_71.2.0-x86_64.iso</td> </tr> </tbody> </table>	Hostname	Server Status	Server Role	Function	Upgrade State	Status Message		OAM Max HA Role	Network Element		Start Time	Finish Time		Max Allowed HA Role	Application Version		Upgrade ISO		dts3-sds-a	Err Active Active	Network OAM&P sds_noamp 5.0.1-50.23.0	OAM&P	Not Ready		dts3-sds-b	Unk OOS Standby	Network OAM&P sds_noamp	OAM&P	Success	Upgrade: Task result for IP: 169.254.100.12, SUCCESS 2015-02-12 22:30:28 2015-02-12 23:06:51 SDS-7.1.0.0.0_71.2.0-x86_64.iso
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10.	<p>Primary SDS NOAM VIP:</p> <p>1) Select...</p> <p>Main Menu → Administration → Software Management → Upgrade</p> <p>2) Select the row containing the hostname of the upgraded server</p> <p>3) Click the “Complete” dialogue button</p>	<p>Main Menu: Administration -> Software Management -> Upg</p> <p>Filter Tasks</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Server Status</th> <th>Server Role</th> <th>Function</th> <th>Upgrade State</th> </tr> <tr> <td></td> <td>OAM Max HA Role</td> <td>Network Element</td> <td></td> <td>Start Time</td> </tr> <tr> <td></td> <td>Max Allowed HA Role</td> <td>Application Version</td> <td></td> <td>Upgrade ISO</td> </tr> </thead> <tbody> <tr> <td>dts3-sds-b</td> <td>Unk OOS Standby</td> <td>Network OAM&P sds_noamp</td> <td>OAM&P</td> <td>Success</td> </tr> <tr> <td>dts3-qs-1</td> <td>Unk OOS Obsrvr</td> <td>Query Server sds_noamp</td> <td>QS</td> <td>Success</td> </tr> </tbody> </table> <p>Backup ISO Cleanup Prepare Initiate Complete Accept Report</p>	Hostname	Server Status	Server Role	Function	Upgrade State		OAM Max HA Role	Network Element		Start Time		Max Allowed HA Role	Application Version		Upgrade ISO	dts3-sds-b	Unk OOS Standby	Network OAM&P sds_noamp	OAM&P	Success	dts3-qs-1	Unk OOS Obsrvr	Query Server sds_noamp	QS	Success					
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SDS Software Upgrade Guide

Appendix C: Upgrade Server on SDS 5.0

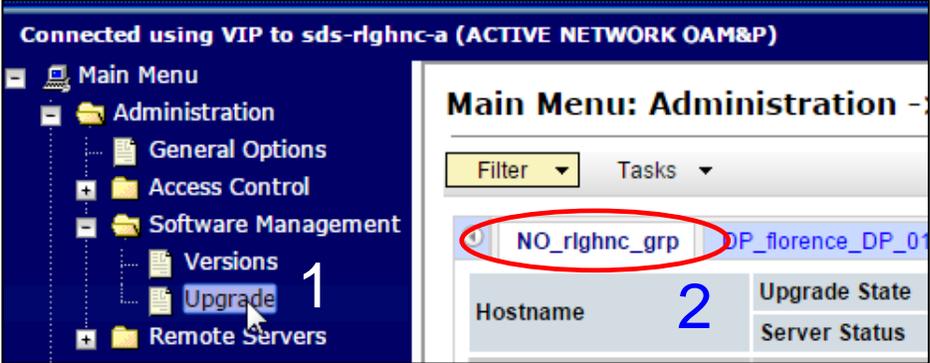
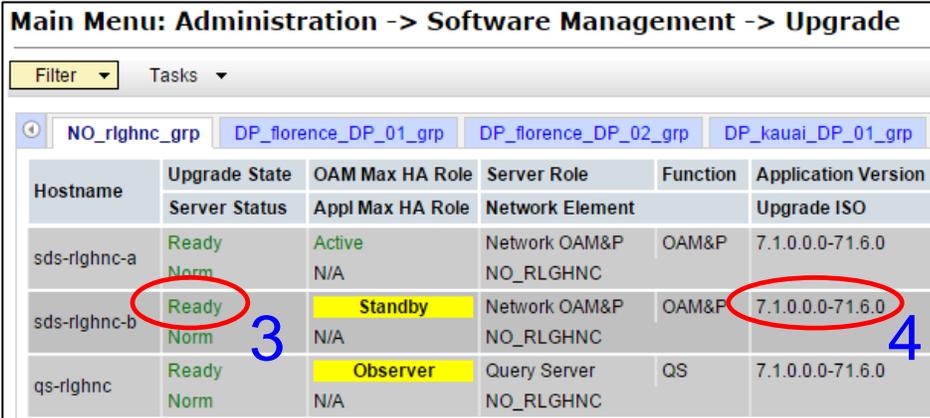
Step	Procedure	Result																																																									
<p>11.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>The user presented with the Upgrade [Complete] screen.</p> <p>Click an “Ok” dialogue button.</p>	<p>Main Menu: Administration -> Software Management -> Upg</p> <p>Info ▾</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Action</th> <th colspan="3">HA Status</th> </tr> <tr> <td></td> <td></td> <th>Max HA Role</th> <th>Active Mates</th> <th>Standby Mate</th> </tr> </thead> <tbody> <tr> <td>dts3-sds-b</td> <td>Complete ▾</td> <td>OOS</td> <td>dts3-sds-a</td> <td>None</td> </tr> </tbody> </table> <p style="text-align: right;"><input type="button" value="Ok"/> <input type="button" value="Cancel"/></p>	Hostname	Action	HA Status					Max HA Role	Active Mates	Standby Mate	dts3-sds-b	Complete ▾	OOS	dts3-sds-a	None																																										
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<p>12.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>The user presented with the Upgrade screen.</p> <p>1) Verify that the Application Version now shows the <target_release>.</p> <p>2) Verify that the Upgrade State shows “Not Ready”.</p>	<table border="1"> <thead> <tr> <th rowspan="4">Hostname</th> <th>Server Status</th> <th>Server Role</th> <th>Function</th> <th>Upgrade State</th> </tr> <tr> <th>OAM Max HA Role</th> <th colspan="2">Network Element</th> <th>Start Time</th> </tr> <tr> <th>Max Allowed HA Role</th> <th colspan="2">Application Version</th> <th>Upgrade ISO</th> </tr> <tr> <th></th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td rowspan="2">dts3-sds-a</td> <td>Warn</td> <td>Network OAM&P</td> <td>OAM&P</td> <td>Not Ready</td> </tr> <tr> <td>Standby</td> <td>sds_noamp</td> <td></td> <td></td> </tr> <tr> <td rowspan="2">dts3-sds-b</td> <td>Active</td> <td>7.1.0.0.0-71.2.0</td> <td></td> <td></td> </tr> <tr> <td>Err</td> <td>Network OAM&P</td> <td>OAM&P</td> <td>Not Ready</td> </tr> <tr> <td rowspan="2">dts3-sds-b</td> <td>Active</td> <td>sds_noamp</td> <td></td> <td></td> </tr> <tr> <td>Active</td> <td>5.0.1-50.23.0</td> <td></td> <td></td> </tr> <tr> <td rowspan="3">dts3-qs-1</td> <td>Err</td> <td>Query Server</td> <td>QS</td> <td>Not Ready</td> </tr> <tr> <td>Observer</td> <td>sds_noamp</td> <td></td> <td></td> </tr> <tr> <td>Obsrvr</td> <td>7.1.0.0.0-71.2.0</td> <td></td> <td></td> </tr> </tbody> </table>	Hostname	Server Status	Server Role	Function	Upgrade State	OAM Max HA Role	Network Element		Start Time	Max Allowed HA Role	Application Version		Upgrade ISO					dts3-sds-a	Warn	Network OAM&P	OAM&P	Not Ready	Standby	sds_noamp			dts3-sds-b	Active	7.1.0.0.0-71.2.0			Err	Network OAM&P	OAM&P	Not Ready	dts3-sds-b	Active	sds_noamp			Active	5.0.1-50.23.0			dts3-qs-1	Err	Query Server	QS	Not Ready	Observer	sds_noamp			Obsrvr	7.1.0.0.0-71.2.0		
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Appendix D Server Upgrade Administration on SDS 7.x

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

SHOULD ANY STEP IN THIS PROCEDURE FAIL, IT IS RECOMMENDED TO STOP AND CONTACT MOS FOR ASSISTANCE BEFORE CONTINUING!

Appendix D: Server Upgrade Administration on SDS 7.x

Step	Procedure	Result
1. <input type="checkbox"/>	Using VIP address, access the Primary SDS NOAM GUI .	<ul style="list-style-type: none"> Using VIP address, access the Primary SDS NOAM GUI as described in Appendix A.
2. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>1) Select...</p> <p>Main Menu → Administration → Software Management → Upgrade</p> <p>2) Select Server Group tab for the server(s) to be upgraded.</p> <p>3) Verify that the “Upgrade State” shows “Ready” for the server(s) to be upgraded.</p> <p>4) Verify the Application Version value for server(s) is the source software release version</p>	 



- If executing **Server Group “Auto Upgrade”**, then **SKIP** to **Step 4** of this procedure.
 - Allowed for **DR NOAM & SOAM** Server Groups only!
- If executing **Single Server (or multi-selected) Upgrade**, then continue with **Step 3** of this procedure.
 - Required for **Primary NOAM & DP** Server Groups.

SDS Software Upgrade Guide

Appendix D: Server Upgrade Administration on SDS 7.x

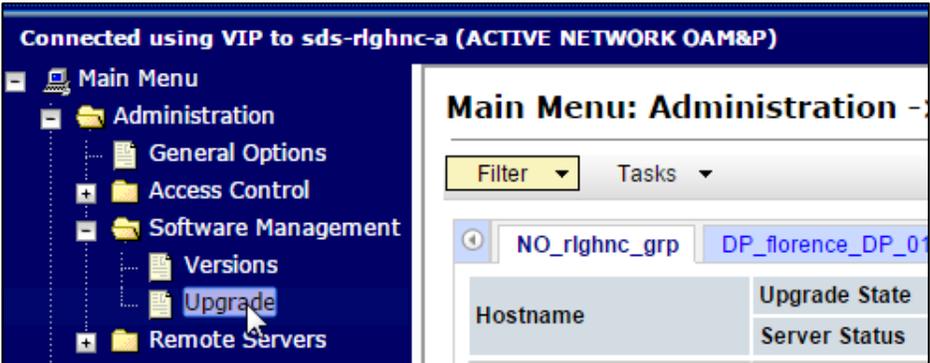
Step	Procedure	Result																																				
<p>3.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p><i>This Step: Single Server (or multi-selected) Upgrade only!</i></p> <ol style="list-style-type: none"> 1) Use the [CTRL] key to multi-select individually server(s) for upgrade. 2) Ensure the “Upgrade Server” dialogue button is enabled. 3) Click the “Upgrade Server” dialogue button. 4) The user should be presented with the Upgrade [Initiate] screen 5) Select the Upgrade ISO file to be used in the server upgrade. 6) Click the “Ok” dialogue button to start the upgrade. 7) SKIP to Step 5 of this procedure. <p>NOTE: During server upgrade, multiple alarms are expected and can be safely ignored. These include but are not limited to the following:</p> <p>Event ID: 10073, 10075, 31101, 31102, 31106, 31107, 31114 & 31283</p>	<div> <p>Main Menu: Administration -> Software Management -> Upgrade</p> <p>Filter Tasks</p> <p>NO_rlghnc_grp DP_florence_DP_01_grp DP_florence_DP_02_grp DP_kauai_DP_01_grp</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Upgrade State</th> <th>OAM Max HA Role</th> <th>Server Role</th> <th>Function</th> <th>Application Vers</th> </tr> <tr> <th></th> <th>Server Status</th> <th>Appl Max HA Role</th> <th>Network Element</th> <th></th> <th>Upgrade ISO</th> </tr> </thead> <tbody> <tr> <td>sds-rlghnc-a</td> <td>Ready Norm</td> <td>Active N/A</td> <td>Network OAM&P NO_RLGHNC</td> <td>OAM&P</td> <td>7.1.0.0.0-71.7.0</td> </tr> <tr> <td>sds-rlghnc-b</td> <td>Ready Norm</td> <td>Standby N/A</td> <td>Network OAM&P NO_RLGHNC</td> <td>OAM&P</td> <td>7.1.0.0.0-71.7.0</td> </tr> <tr> <td>qs-rlghnc</td> <td>Ready Norm</td> <td>Observer N/A</td> <td>Query Server NO_RLGHNC</td> <td>QS</td> <td>7.1.0.0.0-71.7.0</td> </tr> </tbody> </table> <p>Backup Backup All Upgrade Server Accept Report Report All</p> <p>3 Initiate upgrade on the selected server(s) or all servers in the active s</p> </div> <div> <p>Main Menu: Administration -> Softw: Management -> Upgrade [I</p> <p>Info</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Action</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>sds-rlghnc-b</td> <td>Upgrade</td> <td>OAM Max HA Role Standby Network Element NO_RLGHNC</td> </tr> </tbody> </table> <p>Upgrade Settings</p> <p>Upgrade ISO SDS-7.1.0.0.0_71.8.0-x86_64.iso Select the desired upgrade ISO media file.</p> <p>5 6 Ok Cancel</p> </div>	Hostname	Upgrade State	OAM Max HA Role	Server Role	Function	Application Vers		Server Status	Appl Max HA Role	Network Element		Upgrade ISO	sds-rlghnc-a	Ready Norm	Active N/A	Network OAM&P NO_RLGHNC	OAM&P	7.1.0.0.0-71.7.0	sds-rlghnc-b	Ready Norm	Standby N/A	Network OAM&P NO_RLGHNC	OAM&P	7.1.0.0.0-71.7.0	qs-rlghnc	Ready Norm	Observer N/A	Query Server NO_RLGHNC	QS	7.1.0.0.0-71.7.0	Hostname	Action	Status	sds-rlghnc-b	Upgrade	OAM Max HA Role Standby Network Element NO_RLGHNC
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Appendix D: Server Upgrade Administration on SDS 7.x

Step	Procedure	Result																																										
<p>4.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>This Step: Server Group “Auto Upgrade” only!</p> <p>!! WARNING !!</p> <p>DO NOT use the “Auto Upgrade” option when upgrading the “Primary” SDS NOAM Server Group.</p> <p>1) DO NOT select any servers if using Auto Upgrade for the Server Group.</p> <p>2) Ensure the “Auto Upgrade” dialogue button is enabled.</p> <p>3) Click the “Auto Upgrade” dialogue button.</p> <p>4) The user should be presented with the Upgrade [Initiate] screen</p> <p>5) Select “Bulk” mode.</p> <p>6) Select the Upgrade ISO file to be used in the server upgrade.</p> <p>7) Click the “Ok” dialogue button to start the upgrade.</p> <p>NOTE: When Auto Upgrade “Bulk” mode is selected, all non-Active servers will be upgraded first (e.g. Standby, Query Server, etc.).</p> <p>NOTE: During server upgrade, multiple alarms are expected and can be safely ignored. These include but are not limited to the following:</p> <p>Event ID: 10073, 10075, 31101, 31102, 31106, 31107, 31114 & 31283</p>	<div> <p>Main Menu: Administration -> Software Management -> Upgrade</p> <p>Filter Tasks</p> <p>uai_DP_01_grp DP_kauai_DP_02_grp DP_turks_DP_01_grp DP_turks_DP_02_grp NO_mrsv</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Upgrade State</th> <th>OAM Max HA Role</th> <th>Server Role</th> <th>Function</th> <th>Application Versi</th> </tr> <tr> <th></th> <th>Server Status</th> <th>Appl Max HA Role</th> <th>Network Element</th> <th></th> <th>Upgrade ISO</th> </tr> </thead> <tbody> <tr> <td>qs-mrsvnc</td> <td>Ready Norm</td> <td>Observer</td> <td>Query Server NO_MRSVNC</td> <td>QS</td> <td>7.1.0.0.0-71.7.0</td> </tr> <tr> <td>sds-mrsvnc-a</td> <td>Ready Norm</td> <td>Standby</td> <td>Network OAM&P NO_MRSVNC</td> <td>DR OAM&P</td> <td>7.1.0.0.0-71.7.0</td> </tr> <tr> <td>sds-mrsvnc-b</td> <td>Ready Norm</td> <td>Active</td> <td>Network OAM&P NO_MRSVNC</td> <td>DR OAM&P</td> <td>7.1.0.0.0-71.7.0</td> </tr> </tbody> </table> <p>Backup Backup All Auto Upgrade Accept Report Report All</p> <p>Initiate upgrade on the selected server(s) or all servers in the active server group</p> </div> <div> <p>Main Menu: Administration -> Software Management -> Upgr</p> <p>Info</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Action</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>qs-mrsvnc</td> <td>Upgrade</td> <td>OAM Max HA Role: Observer Network Eleme: NO_MRSVNC</td> </tr> <tr> <td>sds-mrsvnc-a</td> <td>Upgrade</td> <td>OAM Max HA Role: Standby Network Eleme: NO_MRSVNC</td> </tr> <tr> <td>sds-mrsvnc-b</td> <td>Auto upgrade</td> <td>OAM Max HA Role: Active Network Eleme: NO_MRSVNC (This server will upgrade after all Stan</td> </tr> </tbody> </table> <p>Upgrade Settings</p> <p>Server group upgrade mode.</p> <p>Mode: <input checked="" type="radio"/> Bulk <input type="radio"/> Serial <input type="radio"/> Grouped Bulk</p> <p>Upgrade ISO: SDS-7.1.0.0.0_71.8.0-x86_64.iso</p> <p>Ok Cancel</p> </div>	Hostname	Upgrade State	OAM Max HA Role	Server Role	Function	Application Versi		Server Status	Appl Max HA Role	Network Element		Upgrade ISO	qs-mrsvnc	Ready Norm	Observer	Query Server NO_MRSVNC	QS	7.1.0.0.0-71.7.0	sds-mrsvnc-a	Ready Norm	Standby	Network OAM&P NO_MRSVNC	DR OAM&P	7.1.0.0.0-71.7.0	sds-mrsvnc-b	Ready Norm	Active	Network OAM&P NO_MRSVNC	DR OAM&P	7.1.0.0.0-71.7.0	Hostname	Action	Status	qs-mrsvnc	Upgrade	OAM Max HA Role: Observer Network Eleme: NO_MRSVNC	sds-mrsvnc-a	Upgrade	OAM Max HA Role: Standby Network Eleme: NO_MRSVNC	sds-mrsvnc-b	Auto upgrade	OAM Max HA Role: Active Network Eleme: NO_MRSVNC (This server will upgrade after all Stan
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Appendix D: Server Upgrade Administration on SDS 7.x

Step	Procedure	Result
	<ul style="list-style-type: none"> If upgrading the formerly “Active” Primary SDS NOAM server (i.e., 2nd NOAM to be upgraded), then continue with Step 5 of this procedure. Otherwise, SKIP to Step 10 of this procedure. 	
<p>5.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP: If upgrading the “Active” Primary SDS NOAM Server, an HA Switchover will occur at this time.</p>	<ul style="list-style-type: none"> The user’s GUI session will end as the “Active” Primary SDS Server goes through HA Switchover and becomes the “Standby” server.
<p>6.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP: Use the [Logout] link in the top right of the browser to logout of the SDS NOAM GUI.</p>	
<p>7.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP: Clear the browser cache.</p> <p>!! IMPORTANT !! DO NOT proceed to the next step until the browser cache has been cleared.</p>	<p>JavaScript libraries, images and other objects are often modified in the upgrade. Browsers can sometimes cause GUI problems by holding on to the old objects in the built-in cache. To prevent these problems always clear the browser cache before logging into an OAM GUI which has just been upgraded:</p> <ol style="list-style-type: none"> 1) Simultaneously hold down the [Ctrl], [Shift] and [Delete] keys (<i>most Web browsers</i>). 2) Select the appropriate object types to delete from the cache via the pop-up dialog. (e.g. “Temporary Internet Files”, “Cache” or “Cached images and files”, etc.). Other browsers may label these objects differently. 3) Clear the cached data.
<p>8.</p> <input type="checkbox"/>	<p>Using VIP address, access the Primary SDS NOAM GUI.</p>	<ul style="list-style-type: none"> Using VIP address, access the Primary SDS NOAM GUI as described in Appendix A.
<p>9.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP: 1) Select...</p> <p>Main Menu → Administration → Software Management → Upgrade</p>	

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Appendix D: Server Upgrade Administration on SDS 7.x

Step	Procedure	Result																																
<p>10.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>The user should now monitor the “Upgrade State” and the “Status Message” for the servers being upgraded.</p>	<table border="1"> <thead> <tr> <th>Hostname</th> <th>Server Status</th> <th>Appl Max HA Role</th> <th>Network Element</th> <th>Function</th> <th>Application Version</th> <th>Start Time</th> <th>Status Message</th> </tr> </thead> <tbody> <tr> <td>sds-righnc-a</td> <td>Ready Err</td> <td>Active N/A</td> <td>Network OAM&P NO_RLGHNC</td> <td>OAM&P</td> <td>7.1.0.0-71.7.0</td> <td></td> <td></td> </tr> <tr> <td>sds-righnc-b</td> <td>Upgrading</td> <td>OOS</td> <td>Network OAM&P NO_RLGHNC</td> <td>OAM&P</td> <td>7.1.0.0-71.8.0 SDS-7.1.0.0.0_71.8.0-x86_64.iso</td> <td>2015-08-06 12:22:37 UTC</td> <td>Upgrade is in progress</td> </tr> <tr> <td>qs-righnc</td> <td>Ready Err</td> <td>Observer N/A</td> <td>Query Server NO_RLGHNC</td> <td>QS</td> <td>7.1.0.0-71.7.0</td> <td></td> <td></td> </tr> </tbody> </table>	Hostname	Server Status	Appl Max HA Role	Network Element	Function	Application Version	Start Time	Status Message	sds-righnc-a	Ready Err	Active N/A	Network OAM&P NO_RLGHNC	OAM&P	7.1.0.0-71.7.0			sds-righnc-b	Upgrading	OOS	Network OAM&P NO_RLGHNC	OAM&P	7.1.0.0-71.8.0 SDS-7.1.0.0.0_71.8.0-x86_64.iso	2015-08-06 12:22:37 UTC	Upgrade is in progress	qs-righnc	Ready Err	Observer N/A	Query Server NO_RLGHNC	QS	7.1.0.0-71.7.0		
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<p>11.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>As Upgrade executes for each server, the user will observe the following states.</p> <p>NOTE: Some states may transition faster than the screen refresh rate and appear to skip.</p>	<table border="1"> <thead> <tr> <th>Sequence</th> <th>Upgrade State</th> <th>Status Message</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Pending</td> <td>Pending Upgrade</td> </tr> <tr> <td>2.</td> <td>Preparing</td> <td>Upgrade task started</td> </tr> <tr> <td>3.</td> <td>Validating</td> <td>Validating upgrade ISO image</td> </tr> <tr> <td>4.</td> <td>Upgrading</td> <td>Upgrade is in progress</td> </tr> <tr> <td>5.</td> <td>Rebooting</td> <td>Warn: failed to get TPD task state, server could be rebooting.</td> </tr> <tr> <td>6.</td> <td>Not Ready</td> <td>Success: Upgraded server to new ISO</td> </tr> <tr> <td>7.</td> <td>Accept or Reject</td> <td>Success: Server upgrade is complete</td> </tr> </tbody> </table>	Sequence	Upgrade State	Status Message	1.	Pending	Pending Upgrade	2.	Preparing	Upgrade task started	3.	Validating	Validating upgrade ISO image	4.	Upgrading	Upgrade is in progress	5.	Rebooting	Warn: failed to get TPD task state, server could be rebooting.	6.	Not Ready	Success: Upgraded server to new ISO	7.	Accept or Reject	Success: Server upgrade is complete								
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<p>12.</p>	<p>Primary SDS NOAM VIP:</p> <p><u>Restart the SDS Application, if necessary</u></p>	<p>If the Upgrade State is “Accept or Reject”, skip this step.</p> <p>In the unlikely event that the SDS Application fails to restart after the upgrade, the Upgrade State will be ‘Backout Ready’, and the Status Message will display: “Server could not restart the application to complete the upgrade.”</p> <p>Perform Appendix M to restore the server to full operational status, then return to this step to continue the upgrade.</p>																																
<p>!!! IMPORTANT !!!</p> <ul style="list-style-type: none"> Unless executing parallel upgrades, DO NOT PROCEED until an “Upgrade State” of “Accept or Reject” is received. If an Upgrade failure is experienced (i.e. Upgrade State = Failed), refer to Appendix J: Recovering from a Failed Upgrade 																																		
<p>13.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>View post-upgrade status</p>	<p>View post-upgrade status of the server(s):</p> <p>Post-Upgrade, upgraded servers will have the following expected alarm.</p> <ul style="list-style-type: none"> Event ID (s): 32532 (Server Upgrade Pending Accept/Reject) 																																
<p>14.</p> <input type="checkbox"/>	<p>Return to the referring Procedure.</p>	<ul style="list-style-type: none"> The user should now return to the Procedure/Step which referred to Appendix D. 																																
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>																																		

Appendix E Backout of a Single Server

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

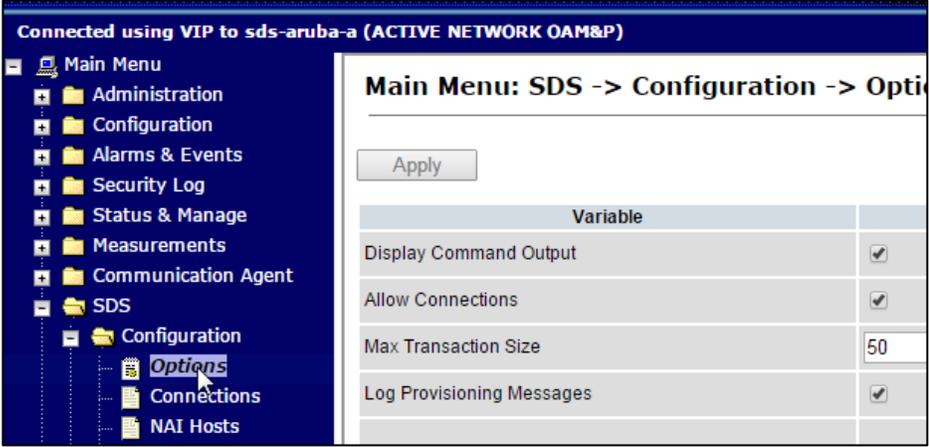
SHOULD ANY STEP IN THIS PROCEDURE FAIL, IT IS RECOMMENDED TO STOP AND CONTACT MOS FOR ASSISTANCE BEFORE CONTINUING!

Appendix E: Backout of a Single Server

Step	Procedure	Result
1. <input type="checkbox"/>	Primary SDS NOAM VIP: Ensure that the server to be downgraded is in the “Accept or Reject” state.	<ol style="list-style-type: none"> 1. Select the [Main Menu: Administration → Software Management → Upgrade] screen. 2. Select the tab containing the server(s) to be backed out. 3. Verify its Upgrade State is “Accept or Reject”.
2. <input type="checkbox"/>	Primary SDS NOAM VIP: Set the Max Allowed HA Role to “Standby” .	<ol style="list-style-type: none"> 1. Select the [Main Menu: Status & Manage → HA] screen; <i>the HA status screen displays.</i> 2. Press the “Edit” button. 3. Select the server(s) to be backed out and choose a Max Allowed HA Role value of “Standby” (<i>unless it is a Query server, in which case the value should remain set to Observer</i>). 4. Press the “Ok” button; <i>the HA status screen displays.</i> Verify that the Max Allowed HA Role is set to the values specified above.
 <ul style="list-style-type: none"> • If downgrading the “Active” Primary SDS NOAM server, then continue with Step 3 of this procedure. • Otherwise, SKIP to Step 13 of this procedure. 		
3. <input type="checkbox"/>	Primary SDS NOAM VIP: If downgrading the “Active” Primary SDS NOAM Server , an HA Switchover will occur at this time.	<ul style="list-style-type: none"> • The user’s GUI session will end as the “Active” Primary SDS Server goes through HA Switchover and becomes the “Standby” server.
4. <input type="checkbox"/>	Primary SDS NOAM VIP: Use the [Logout] link in the top right of the browser to logout of the SDS NOAM GUI .	

SDS Software Upgrade Guide

Appendix E: Backout of a Single Server

Step	Procedure	Result										
<p>5.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Clear the browser cache.</p> <p>!! IMPORTANT !!</p> <p>DO NOT proceed to the next step until the browser cache has been cleared.</p>	<p>JavaScript libraries, images and other objects are often modified in the upgrade. Browsers can sometimes cause GUI problems by holding on to the old objects in the built-in cache. To prevent these problems always clear the browser cache before logging into an OAM GUI which has just been upgraded:</p> <ol style="list-style-type: none"> 1) Simultaneously hold down the [Ctrl], [Shift] and [Delete] keys (<i>most Web browsers</i>). 2) Select the appropriate object types to delete from the cache via the pop-up dialog. (e.g. “Temporary Internet Files”, “Cache” or “Cached images and files”, etc.). Other browsers may label these objects differently. <p>Clear the cached data.</p>										
<p>6.</p> <input type="checkbox"/>	<p>Using VIP address, access the Primary SDS NOAM GUI.</p>	<ul style="list-style-type: none"> • Using VIP address, access the Primary SDS NOAM GUI again as described in Appendix A. 										
<p>7.</p>	<p>Primary SDS NOAM VIP:</p> <p>Select...</p> <p>Main Menu → SDS → Configuration → Options</p> <p>...as shown on the right.</p>	 <table border="1"> <thead> <tr> <th>Variable</th> <th></th> </tr> </thead> <tbody> <tr> <td>Display Command Output</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Allow Connections</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Max Transaction Size</td> <td>50</td> </tr> <tr> <td>Log Provisioning Messages</td> <td><input checked="" type="checkbox"/></td> </tr> </tbody> </table>	Variable		Display Command Output	<input checked="" type="checkbox"/>	Allow Connections	<input checked="" type="checkbox"/>	Max Transaction Size	50	Log Provisioning Messages	<input checked="" type="checkbox"/>
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<p>8.</p>	<p>Primary SDS NOAM VIP:</p> <p>Locate the “PDB Relay Enabled” checkbox and determine if it is CHECKED or NOT CHECKED. Record the value</p>	<table border="1"> <tr> <td>Remote Audit Number Range Limit</td> <td>1000 numbers</td> </tr> <tr> <td>PDB Relay Enabled</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>PDB Relay Primary Remote System VIP Address</td> <td>10.240.40.6</td> </tr> </table> <p style="text-align: center;">CHECKED (Yes/No)</p> <p>PDB Relay Enabled _____</p>	Remote Audit Number Range Limit	1000 numbers	PDB Relay Enabled	<input checked="" type="checkbox"/>	PDB Relay Primary Remote System VIP Address	10.240.40.6				
Remote Audit Number Range Limit	1000 numbers											
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Appendix E: Backout of a Single Server

Step	Procedure	Result
		<ul style="list-style-type: none"> • If the PDB Relay Enabled checkbox is NOT CHECKED, then SKIP to Step 13 of this procedure. • If the PDB Relay Enabled checkbox is CHECKED, CONTINUE with Step 9 of this procedure.
<p>9.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP (CLI):</p> <p>Using the VIP address, login to the “Active” Primary SDS NOAM with the admusr account.</p>	<pre>CentOS release 5.7 (Final) Kernel 2.6.18-274.7.1.el5prere15.0.0_72.32.0 on an x86_64 sds-rlghnc-b login: admusr Password: <admusr_password></pre>
<p>10.</p>	<p>Primary SDS NOAM VIP:</p> <p>The user will be presented with output similar to that shown to the right.</p>	<pre>*** TRUNCATED OUTPUT *** RELEASE=6.4 RUNID=00 VPATH=/var/TKLC/rundb:/usr/TKLC/appworks:/usr/TKLC/awpcommon:/usr/TKLC/comagent-gui:/usr/TKLC/comagent-gui:/usr/TKLC/comagent:/usr/TKLC/sds PRODPATH=/opt/comcol/prod RUNID=00 [admusr@sds-rlghnc-b ~]\$</pre>
<p>11.</p>	<p>Primary SDS NOAM VIP:</p> <p>Set the pdbRelayTimeStamp to “0”.</p>	<pre>[admusr@sds-rlghnc-b ~]\$ sudo iset -fvalue=0 ProvOptions where "var='pdbRelayMsgLogTimeStamp'" [admusr@sds-rlghnc-b ~]\$</pre>
<p>12.</p>	<p>Primary SDS NOAM VIP:</p> <p>Exit the CLI for the “Active” Primary SDS NOAM.</p>	<pre>[admusr@sds-rlghnc-b ~]\$ exit logout</pre>
<p>13.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Stop the software.</p>	<ol style="list-style-type: none"> 1. Select the [Main Menu: Status & Manage → Server] screen; <i>the Server status screen displays.</i> 2. Select the serve(s)r to be backed out and press the “Stop” button. 3. Click “OK” to confirm the operation. 4. Verify that the Appl State updates to “Disabled”
<p>14.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Verify that the server(s) are Backout Ready.</p>	<ol style="list-style-type: none"> 1. Reselect the [Main Menu: Administration → Software Management → Upgrade] screen. 2. Reselect the tab of the server group containing the server(s) to be backed out. NOTE: <i>It might take a couple minutes for the grid to update.</i> <p>If the Primary Active SDS is at release 7.1 or later, then verify its Upgrade State is displayed as “Backout Ready”</p> <p>If the Primary Active SDS is at release 5.0, then verify its Upgrade State is displayed as “Ready”</p> <p>NOTE: <i>If this is the Active server in an Active-Standby pair, these steps WILL cause an HA switchover. The HA switchover is an expected outcome. Continue the steps on the new Active NOAMP.</i></p>

SDS Software Upgrade Guide

Appendix E: Backout of a Single Server

Step	Procedure	Result
15. <input type="checkbox"/>	Server CLI: SSH to the server(s) to be backed out.	Use an SSH client to connect to the server (ex. ssh, PuTTY): Note: Consult the software client's documentation to learn how to launch a connection. For example: <code>ssh <server address></code> NOTE: If direct access to the XMI is not available, then access the target server via a connection through the active NO. SSH to the active NO XMI first. Once logged into the NO; from there, SSH to the target server's XMI address.
16. <input type="checkbox"/>	Server CLI: Login as user "admusr".	<code>login as: admusr</code> <code>password: <enter password></code>
17. <input type="checkbox"/>	Server CLI: Execute the backout	Execute the backout using the reject script: <code>\$ sudo /var/TKLC/backout/reject</code> Output similar to that shown below will appear on the screen. Answer "y" to continue the backout. *** TRUNCATED OUTPUT *** Executing.. /var/TKLC/backout/backout_server --check Verifying that backout is possible. Checking for stale RPM DB locks... Current platform version: 7.0.2.0.0-86.30.0 Continue backout? [y/N]: y
18. <input type="checkbox"/>	Server CLI: Backout proceeds followed by an automatic reboot .	Many informational messages will come across the terminal screen as the backout proceeds: Finally, after reject is complete, the server will automatically reboot and the user will be automatically logged out.
19. <input type="checkbox"/>	Server CLI: SSH to the server(s) to be backed out.	After the reboot has completed, use an SSH client to reconnect to the server (ex. ssh, PuTTY): Note: Consult the software client's documentation to learn how to launch a connection. For example: <code>ssh <server address></code> NOTE: If direct access to the XMI is not available, then access the target server via a connection through the active NO. SSH to the active NO XMI first. Once logged into the NO; from there, SSH to the target server's XMI address.
20. <input type="checkbox"/>	Server CLI: Login as user "admusr".	These commands are performed as admusr, and it is necessary to use sudo for some of the commands. <code>login as: admusr</code> <code>password: <enter password></code>

Appendix E: Backout of a Single Server

Step	Procedure	Result
<p>21.</p> <input type="checkbox"/>	<p>Server CLI: Verify the Backout</p>	<p>Examine the upgrade logs in the directory /var/TKLC/log/upgrade and verify that no errors were reported:</p> <pre>\$ grep ERROR /var/TKLC/log/upgrade/upgrade.log</pre> <ol style="list-style-type: none"> 1. Examine the output of the above commands to determine if any errors were reported. Note: The following errors can be ignored: DEBUG: 'iqt' command failed (is IDB running?) and/or ERROR: createVolumes needs logical volume objects passed in. ERROR: There was a problem creating Logical Volumes. ERROR: Check log for error relating to exitCode: 6. ERROR-{HA::Mgr}: No Clusternode found for resource entry, (tklc-ha-active)! ERROR-{HA::Mgr}: Failed to initialize ResourceConf! ERROR: generateTest did not return an object! ERROR: Should not happen! ERROR: failed to initialize HA syscheck modules ERROR: failed to restart syscheck 2. If the backout was not successful because other errors were recorded in the logs, then contact Oracle Customer Care Center for further instructions. 3. If the backout was successful (no errors or failures), then continue with the remaining steps.

Appendix E: Backout of a Single Server

Step	Procedure	Result
<p>22.</p> <input type="checkbox"/>	<p>Server CLI: Restore the COMCOL Full DB/Run environment.</p> <p>NOTE: <i>The COMCOL restore process may take several minutes to complete.</i></p>	<p>Execute the backout_restore utility to restore the full database run environment.</p> <pre>\$ sudo /var/tmp/backout_restore</pre> <p>Output similar to that shown below will appear on the screen. Answer “y” to continue the restore.</p> <p>*** TRUNCATED OUTPUT ***</p> <p>This process will totally destroy the existing DB on this server. This should only be done to recover a server when an upgrade has been backed-out/rolled-back.</p> <pre>Are you sure you want to proceed? (y n): y</pre> <p>If the restore was successful, the following will be displayed:</p> <pre>Success: Full restore of COMCOL run env has completed. Return to the backout procedure document for further instruction.</pre> <p>NOTE: In some upgrade scenarios, the backout_restore file will not be found in the /var/tmp directory, resulting in the following error message:</p> <pre>/var/tmp/backout_restore: No such file or directory</pre> <p>If this message occurs, copy the file from /usr/TKLC/appworks/sbin to /var/tmp and repeat this step.</p> <p>If an error is encountered and reported by the utility, then work with Oracle Customer Care Center for further instructions.</p>
<p>23.</p> <input type="checkbox"/>	<p>Server CLI: Reboot the server</p>	<p>Enter the following command to reboot the server.</p> <pre>\$ sudo init 6</pre> <p>This step can take several minutes and will terminate the SSH session.</p>
<p>24.</p> <input type="checkbox"/>	<p>Server CLI: SSH to the server(s) which were backed out.</p>	<p>After the reboot has completed, use an SSH client to reconnect to the server (ex. ssh, PuTTY):</p> <p>Note: Consult the software client’s documentation to learn how to launch a connection. For example:</p> <pre>ssh <server address></pre> <p>NOTE: <i>If direct access to the XMI is not available, then access the target server(s) via an SSH connection from the active NO. SSH to the active NO XMI first, then from there, SSH to the target server’s XMI address.</i></p>
<p>25.</p> <input type="checkbox"/>	<p>Server CLI: Login as user “admusr”.</p>	<p>These commands are performed as admusr, and it is necessary to use sudo for some of the commands.</p> <pre>login as: admusr password: <enter password></pre>

Appendix E: Backout of a Single Server

Step	Procedure	Result
<p>26.</p> <input type="checkbox"/>	<p>Server CLI:</p> <p>Verify that the “httpd” service has restarted.</p>	<p>Verify services are have restarted:</p> <ol style="list-style-type: none"> 1. If this is an NO or SO, verify httpd service is running. <pre>\$ sudo service httpd status</pre> <ol style="list-style-type: none"> 2. Verify expected output displays httpd is running (the process IDs are variable so the actual number value can be ignored): <pre>httpd (pid xxxx) is running...</pre> <ol style="list-style-type: none"> 3. If httpd is not running, wait for a few minutes and retry the above command. If httpd is still not running after 3 minutes, then services have failed to restart. Contact Oracle Customer Care Center for further instructions.
<p>27.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Verify the server(s) Application Version and Upgrade State.</p>	<ol style="list-style-type: none"> 1. Select the [Main Menu: Administration → Software Management → Upgrade] screen. 2. Select the tab containing the server(s) which were backed out. 3. Verify the Application Version value for this server has been backed out to the source release version. 4. Verify the Upgrade State. <p>Note: Full audit between active NO and backed out server is conducted and it may take up to 10 mins before Upgrade State is moved to 'ready'</p>
<p style="text-align: center;">For Primary Active SDS at release 7.1 or later:</p> <ul style="list-style-type: none"> ○ If the Upgrade State is “Ready”, SKIP to Step 34 of this procedure. ○ If the Upgrade State is “Not Ready”, then proceed to Step 28 of this procedure. <div style="display: flex; align-items: center;">  <p>For Primary Active SDS at release 5.0: (i.e due to backout of the entire topology)</p> </div> <ul style="list-style-type: none"> ○ If the Upgrade State is “Not Ready”, then SKIP to Step 34 of this procedure. ○ If the Upgrade State is “Ready”, then SKIP to Step 31 of this procedure. <p>NOTE: The Primary Active SDS release can be seen on the NOAM GUI banner (via the VIP).</p> <div style="text-align: center;">  </div>		
<p>28.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>(Primary Active SDS release 7.1 or later)</p> <p>Set the Max Allowed HA Role to “Active”.</p>	<p>Due to backout being initiated from the command line instead of through the GUI, modify the backed out server so its Upgrade State moves to Ready.</p> <ol style="list-style-type: none"> 1. Select the [Main Menu: Status & Manage → HA] screen; the HA status screen displays. 2. Press the “Edit” button. 3. Select the backed out server(s) and choose a Max Allowed HA Role value of Active (unless it is a Query server, in which case the value should remain set to Observer). 4. Press the “OK” button; the HA status screen displays. 5. Verify that the Max Allowed HA Role is set to the values specified above.

SDS Software Upgrade Guide

Appendix E: Backout of a Single Server

Step	Procedure	Result
29. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Restart the software.</p>	<ol style="list-style-type: none"> 1. Select [Main Menu: Status & Manage → Server] screen; <i>the Server status screen displays.</i> 2. If the server(s) which were backed out show an Appl State state of “Enabled”, SKIP to the next Step. 3. If the server(s) which were backed out show an Appl State state of “Disabled”, select the server(s) press “Restart” button. 4. Click “OK” to confirm the operation. 5. Verify that the Appl State updates to “Enabled”.
30. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Verify the Upgrade State</p>	<ol style="list-style-type: none"> 1. Select [Main Menu: Administration → Software Management → Upgrade] screen. 2. Select the tab of the server group containing the server(s) which were backed out. 3. Verify that the Upgrade State is now “Ready” (<i>it may take several seconds for the grid to update</i>). 4. SKIP to Step 34 of this procedure.
31. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>(Primary Active SDS release 5.0)</p> <p>Stop the software (<i>if necessary</i>).</p>	<p>Due to backout being initiated from the command line instead of through the GUI, modify the Upgrade State of the backed out server(s) to achieve a state of “Not Ready”.</p> <ol style="list-style-type: none"> 1. Select [Main Menu: Status & Manage → Server] screen; <i>the Server Status screen displays.</i> 2. If the server(s) which were backed out show an Appl State of “Enabled”, then select the server(s) and press the Stop button.
32. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Verify the server(s) Upgrade State.</p>	<ol style="list-style-type: none"> 1. Select [Main Menu: Administration → Software Management → Upgrade] screen; <i>the Upgrade Administration screen displays.</i> 2. If the server(s) which were backed out show an Upgrade State is “Not Ready”, SKIP to Step 34 of this procedure.
33. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>“Complete” the backout action (<i>if necessary</i>).</p>	<ol style="list-style-type: none"> 1. If the server(s) which were backed out show an Upgrade State of “Ready” or “Success”, then 2. Select the server(s) which were backed out and press the “Complete” button. 3. The Upgrade [Complete] screen will appear. Leave the Action set to its default value of “Complete”. 4. Click “OK” to confirm the action; <i>this will update the Max Allowed HA Role of the backed out server(s) to Active, which will cause the server Upgrade State to change to Not Ready.</i> <p>The user may see the following SOAP error appear in the GUI banner.</p> <pre>SOAP error while clearing upgrade status of hostname=[frame10311b6] ip=[172.16.1.28]</pre> <p>NOTE: <i>It is safe to ignore this error message.</i></p>
34.	<p>Backout has been completed.</p>	<ul style="list-style-type: none"> • Return to the referring procedure.
THIS PROCEDURE HAS BEEN COMPLETED		

Appendix F Verifying Shared Segments and Logical Volumes

This procedure verifies increases in database size needed by imports in SDS 5.0 and re-aligns existing partition sizes to meet the resource demands of SDS 5.0. This script can be run for all servers at once or for one server at a time.

!!! IMPORTANT !!! This procedure is a prerequisite for **Major Upgrade** from **SDS 5.0 to SDS 7.x only**. **DO NOT** execute for **7.x to 7.y** Major Upgrade or **7.x.y to 7.x.z** Incremental upgrades.

 STOP !	<p><i>Before executing this procedure...</i></p> <ol style="list-style-type: none"> 1. It is recommended to login to the “My Oracle Support” (MOS) website <i>See Appendix N - Accessing My Oracle Support (MOS) if assistance is needed.</i> 2. From the Dashboard, click on the “Patches & Updates” tab. 3. Search for “Patch 20513402” (SDS 5.0 Patch for Bug 20418367) 4. Download the patch and replace the “/usr/TKLC/sds/bin/lv50fix” script on the “Active” Primary SDS NOAM server.
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Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

SHOULD ANY STEP IN THIS PROCEDURE FAIL, IT IS RECOMMENDED TO STOP AND CONTACT MOS FOR ASSISTANCE BEFORE CONTINUING!

Appendix F: Verifying Shared Segments and Logical Volumes

Step	Procedure	Result
1. <input style="width: 20px; height: 20px;" type="checkbox"/>	Primary SDS VIP (SSH): To validate <i>all</i> servers, login to the Primary SDS Active server	<ul style="list-style-type: none"> • Run this command to validate <i>all</i> servers: <pre># /usr/TKLC/sds/bin/lv50fix validate all</pre> <p>NOTE: <i>This script produces much output and, first, verifies if all servers in the entire SDS topology are ready to have their shared segments and logical volumes resized. Then it performs those changes on all servers in the SDS topology.</i></p>

SDS Software Upgrade Guide

Step	Procedure	Result
<p>2.</p> <input type="checkbox"/>	<p>Primary SDS VIP (SSH):</p> <p>When validating all servers, the user will see output similar to that shown to the right</p>	<pre># /usr/TKLC/sds/bin/lv50fix validate all lv50fix script is running command "validate all" saving output in "/tmp/lv50fix.log.03_04_2015.02" Verify sdsSO-carync-b, SYSTEM_OAM, using VG Size: 112352.00m ... Verified final shared segment size: 8192 matches final: 8192 Verified final lv: apw_tmp size: 10.00g matches final: 10.00g Verified final lv: filegmt size: 28.69g matches final: 28.69g Verified final lv: logs_process size: 7.50g matches final: 7.50g Verified final lv: logs_security size: 7.50g matches final: 7.50g Verified ----- lv: netbackup_lv size: 2.00g matches initial/final: 2.00g Verified ----- lv: plat_root size: 1.00g matches initial/final: 1.00g Verified ----- lv: plat_tmp size: 1.00g matches initial/final: 1.00g Verified ----- lv: plat_usr size: 4.00g matches initial/final: 4.00g Verified ----- lv: plat_var size: 1.00g matches initial/final: 1.00g Verified ----- lv: plat_var_tklc size: 4.00g matches initial/final: 4.00g Verified final lv: run_db size: 21.50g matches final: 21.50g Verified final vg free size: 21.53g matches final: 21.53g Verified ----- /tmp/appworks_temp percent Used: 2 percent is no more than 99 percent Verified ----- /var/TKLC/db/filegmt percent Used: 1 percent is no more than 99 percent *** TRUNCATED OUTPUT ***</pre>
<p>3.</p> <input type="checkbox"/>	<p>Primary SDS VIP (SSH):</p> <p>The user should review the “Validation:” summary which appears at the end of the output. It is recommended to report any FAILED: or “partially done” results to MOS for resolution.</p>	<pre>*** TRUNCATED OUTPUT *** Verified ----- lv: logs_security size: 10.00g matches initial/final: 10.00g Verified ----- lv: netbackup_lv size: 2.00g matches initial/final: 2.00g Verified ----- lv: plat_root size: 1.00g matches initial/final: 1.00g Verified ----- lv: plat_tmp size: 1.00g matches initial/final: 1.00g Verified ----- lv: plat_usr size: 4.00g matches initial/final: 4.00g Verified initial vg free size: 25.25g matches initial: 25.25g Verified ----- /var/TKLC/rundb percent Used: 1 percent is no more than 48 percent Hostname: dp-carync-1, MP, has already made 1 changes and ready for 3, so is ready for these changes (since it is safe to re-do them). Validation: FAILED: 6 servers NOT ready for changes (and also have ready for update: 0 with initial values, 5 already updated, and 3 partially done (no harm to re-do))</pre>
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>		

Appendix G Manually Performing ISO Validation

NOTE: This a procedure assumes that the **ISO** file to be validated has already been uploaded to the server in question and is present in the `/var/TKLC/db/filegmt/`, `/var/TKLC/db/filegmt/isos/` or `/var/TKLC/upgrade/` directory.

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

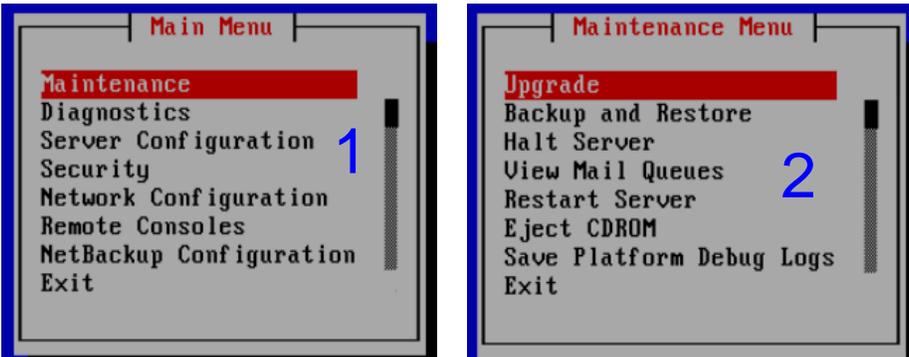
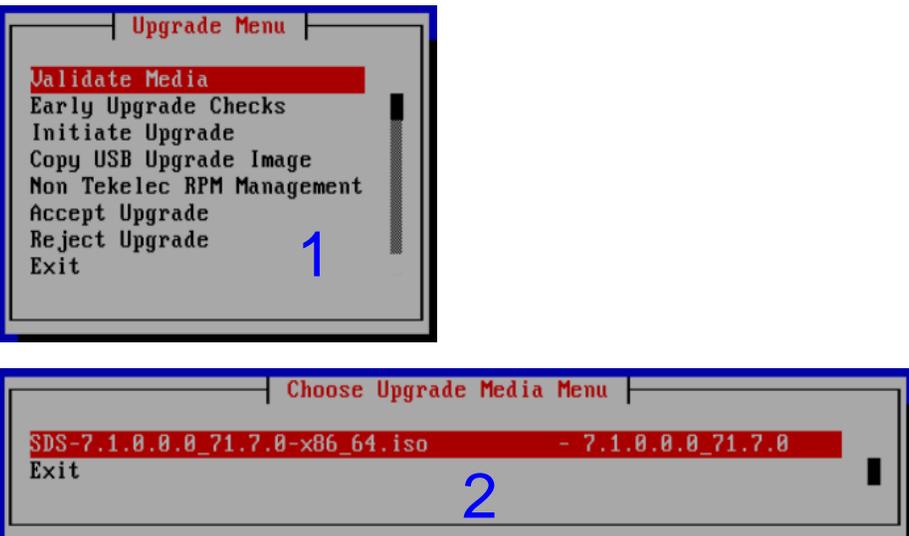
SHOULD ANY STEP IN THIS PROCEDURE FAIL, IT IS RECOMMENDED TO STOP AND CONTACT MOS FOR ASSISTANCE BEFORE CONTINUING!

Appendix G: Manually Performing ISO Validation

Step	Procedure	Result
1. <input type="checkbox"/>	Primary SDS NOAM VIP (CLI): Using the VIP address, login to the “ Active ” Primary SDS NOAM with the admusr account.	CentOS release 5.7 (Final) Kernel 2.6.18-274.7.1.el5prere15.0.0_72.32.0 on an x86_64 sds-rlghnc-a login: admusr Password: <admusr_password>
2. <input type="checkbox"/>	Primary SDS VIP: The user will be presented with output similar to that shown to the right.	RELEASE=6.4 RUNID=00 VPATH=/var/TKLC/rundb:/usr/TKLC/appworks:/usr/TKLC/awpcommon:/usr/TKLC/comagent-gui:/usr/TKLC/comagent-gui:/usr/TKLC/comagent:/usr/TKLC/sds PRODPATH=/opt/comcol/prod RUNID=00 [admusr@sds-rlghnc-a ~]\$
3. <input type="checkbox"/>	Primary SDS NOAM VIP: Verify that the ISO file is present in the <code>/var/TKLC/upgrade/</code> directory. If the ISO file to be validated is present in the output then SKIP to Step 5 of this procedure. Otherwise, continue to the next step.	[admusr@sds-rlghnc-a ~]\$ ls /var/TKLC/upgrade/ SDS-7.1.0.0.0_71.11.0-x86_64.iso [admusr@sds-rlghnc-a ~]\$
4. <input type="checkbox"/>	Primary SDS NOAM VIP: Copy the ISO file to the <code>/var/TKLC/upgrade/</code> directory.	[admusr@sds-rlghnc-a ~]\$ cp -p /var/TKLC/db/filegmt/SDS-7.1.0.0.0_71.11.0-x86_64.iso /var/TKLC/upgrade/ [admusr@sds-rlghnc-a ~]\$

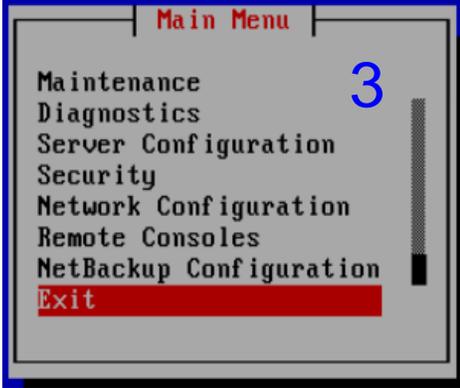
SDS Software Upgrade Guide

Appendix G: Manually Performing ISO Validation

Step	Procedure	Result
<p>5.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Become the “platcfg” user using the “su” command.</p> <p>For password information, refer to Table 4 (Logins, Passwords and Site Information) if necessary.</p>	<pre>[admusr@sds-rlghnc-a ~]\$ su - platcfg Password: <platcfg_password></pre>
<p>6.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>1) From the platcfg [Main Menu], select the “Maintenance” menu option and press the [ENTER] key.</p> <p>2) From the platcfg [Maintenance Menu], select the “Upgrade” menu option and press the [ENTER] key.</p>	
<p>7.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>1) From the platcfg [Upgrade Menu], select the “Validate Media” menu option and press the [ENTER] key.</p> <p>2) From the platcfg [Choose Upgrade Media Menu], select the target ISO file and press the [ENTER] key.</p>	

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Appendix G: Manually Performing ISO Validation

Step	Procedure	Result
	<p>3) From the platcfg [Main Menu], select the “Exit” menu option and press the [ENTER] key.</p>	
<p>11.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP: Exit the CLI to the Active Primary SDS NOAM.</p>	<pre>[admusr@sds-rlghnc-a ~]\$ exit</pre>
<p>12.</p> <input type="checkbox"/>	<p>Return to the referring Procedure.</p>	<ul style="list-style-type: none"> The user should now return to the Procedure/Step which referred them to Appendix G (Manually Performing ISO Validation).
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>		

Appendix H Undeploying an ISO file (Post Upgrade Acceptance)

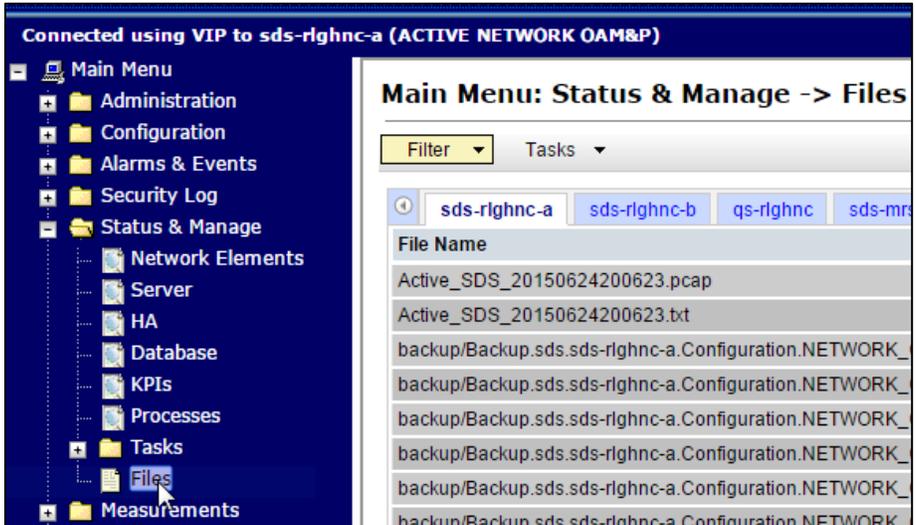
This procedure should only be executed post Upgrade Acceptance and removes a deployed **ISO** file from all servers in the SDS topology except the “Active” **Primary NOAM** server. At the end of the procedure the ISO will still be present in the `/var/TKLC/db/filemgmt/isos/` directory on the “Active” **Primary NOAM** server.

Once this procedure is completed, the file may then be manually deleted (*if desired*) from the SDS NOAM GUI (VIP) under the [Main Menu: Status & Manage → Files] screen.

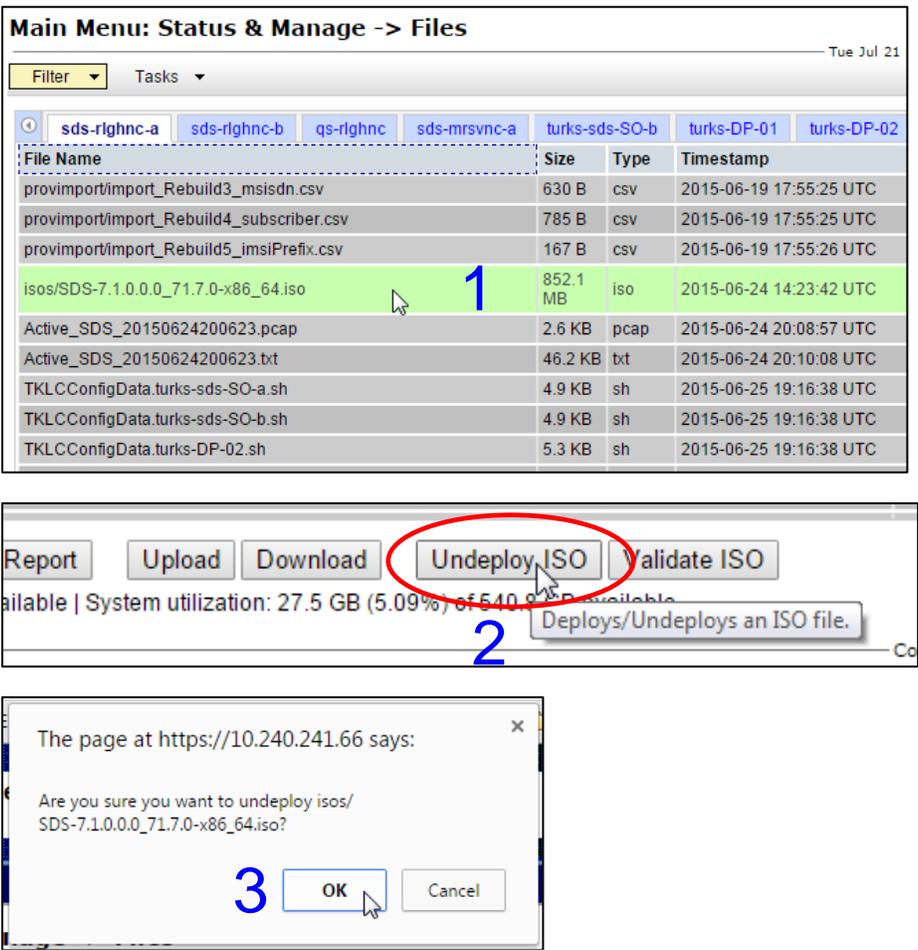
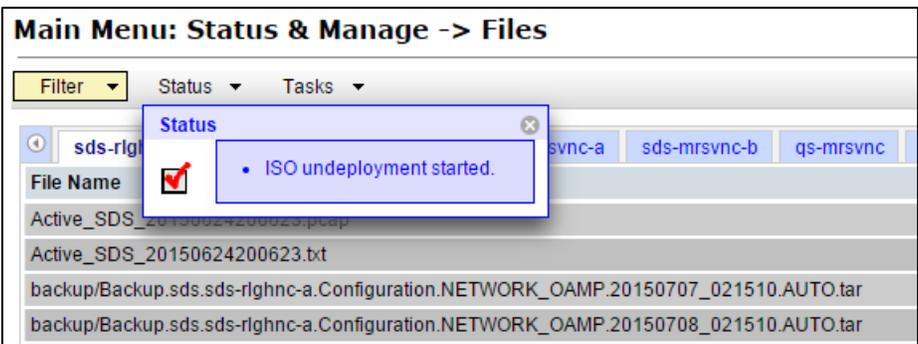
Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

SHOULD ANY STEP IN THIS PROCEDURE FAIL, IT IS RECOMMENDED TO STOP AND CONTACT MOS FOR ASSISTANCE BEFORE CONTINUING!

Appendix H: Undeploying an ISO file (Post Upgrade Acceptance)

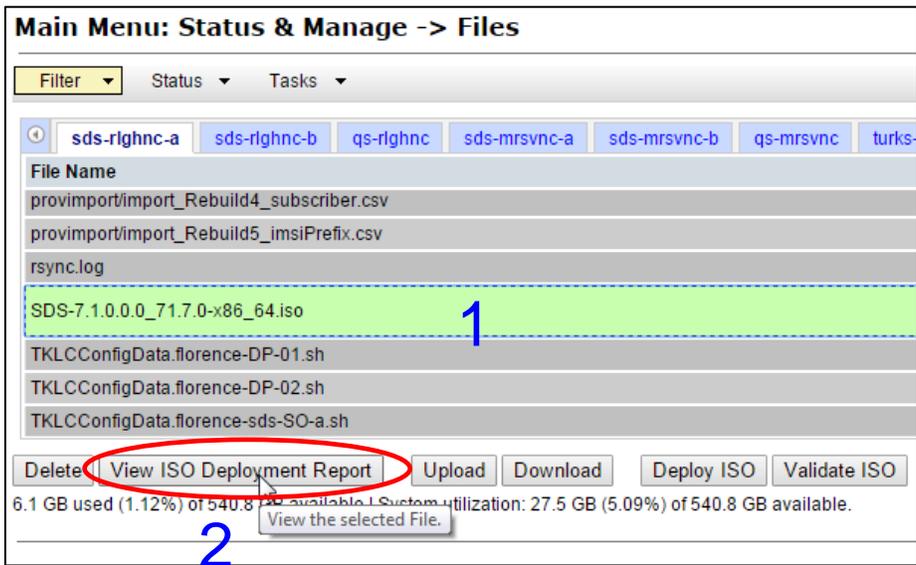
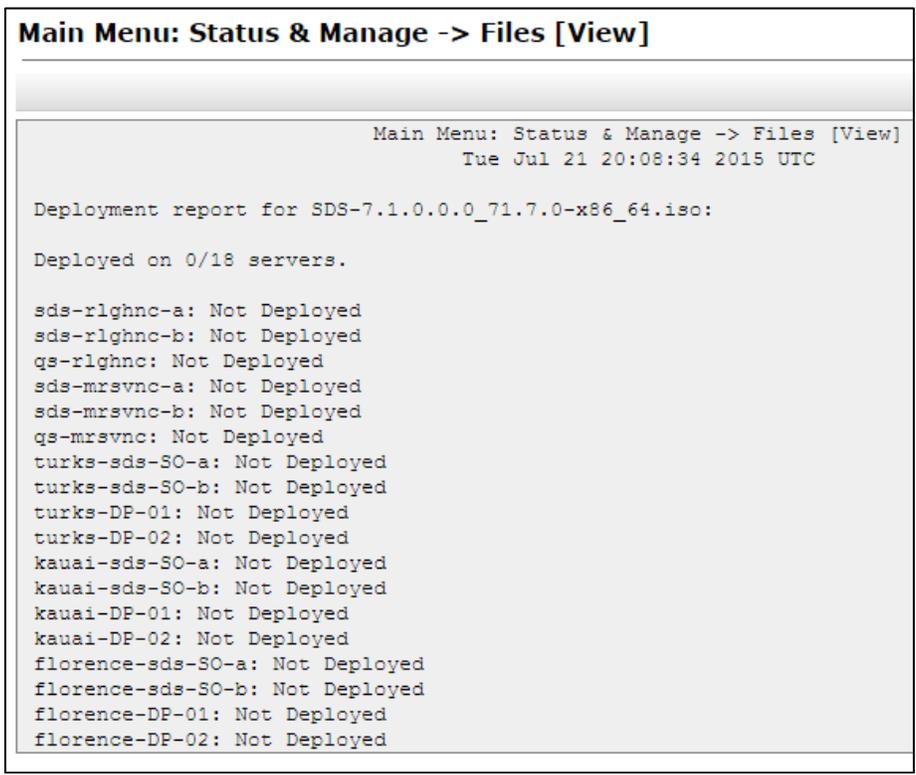
Step	Procedure	Result
1. <input type="checkbox"/>	Using VIP address, access the Primary SDS NOAM GUI .	<ul style="list-style-type: none"> Using VIP address, access the Primary SDS NOAM GUI as described in Appendix A.
2. <input type="checkbox"/>	Primary SDS NOAM VIP: Select... Main Menu → Status & Manage → Files ...as shown on the right.	 <p>The screenshot shows the SDS NOAM GUI interface. The title bar reads "Connected using VIP to sds-rlghnc-a (ACTIVE NETWORK OAM&P)". The left sidebar contains a "Main Menu" with categories like Administration, Configuration, Alarms & Events, Security Log, Status & Manage, Network Elements, Server, HA, Database, KPIs, Processes, Tasks, Files, and Measurements. The "Files" option is highlighted. The main content area is titled "Main Menu: Status & Manage -> Files" and displays a list of files with columns for "Filter" and "Tasks". The file list includes "Active_SDS_20150624200623.pcap", "Active_SDS_20150624200623.txt", and multiple backup files with names like "backup/Backup.sds.sds-rlghnc-a.Configuration.NETWORK_".</p>

Appendix H: Undeploying an ISO file (Post Upgrade Acceptance)

Step	Procedure	Result
<p>3.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>Primary SDS NOAM VIP:</p> <p>1) Select the ISO file for the target 7.x release.</p> <p>2) Click the “Undeploy ISO” dialogue button.</p> <p>3) Click “OK” on the confirmation pop-up window.</p>	
<p>4.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>Primary SDS VIP:</p> <p>The “Status” tab in the banner will display a confirmation message stating “ISO undeployment started”.</p>	

SDS Software Upgrade Guide

Appendix H: Undeploying an ISO file (Post Upgrade Acceptance)

Step	Procedure	Result
<p>5.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>Monitor the ISO undeployment status.</p> <p>1) Using the cursor, reselect the ISO file for the target 7.x release.</p> <p>2) Click the “View ISO Deployment Report” dialogue button.</p>	 <p>Main Menu: Status & Manage -> Files</p> <p>Filter Status Tasks</p> <p>sds-rlghnc-a sds-rlghnc-b qs-rlghnc sds-mrsvnc-a sds-mrsvnc-b qs-mrsvnc turks-</p> <p>File Name</p> <p>provimport/import_Rebuild4_subscriber.csv</p> <p>provimport/import_Rebuild5_imsiPrefix.csv</p> <p>rsync.log</p> <p>SDS-7.1.0.0.0_71.7.0-x86_64.iso 1</p> <p>TKLCConfigData.florence-DP-01.sh</p> <p>TKLCConfigData.florence-DP-02.sh</p> <p>TKLCConfigData.florence-sds-SO-a.sh</p> <p>Delete View ISO Deployment Report Upload Download Deploy ISO Validate ISO</p> <p>6.1 GB used (1.12% of 540.8 GB available). System utilization: 27.5 GB (5.09%) of 540.8 GB available.</p> <p>View the selected File.</p> <p>2</p>
<p>6.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>The user is presented with the Deployment Report indicating the current status of undeployment to all servers in the topology.</p> <p>Refresh the report by clicking the “Back” dialogue button and repeating Step 5 of this procedure until the ISO shows “Not Deployed” to all servers in the topology.</p>	 <p>Main Menu: Status & Manage -> Files [View]</p> <p>Main Menu: Status & Manage -> Files [View]</p> <p>Tue Jul 21 20:08:34 2015 UTC</p> <p>Deployment report for SDS-7.1.0.0.0_71.7.0-x86_64.iso:</p> <p>Deployed on 0/18 servers.</p> <p>sds-rlghnc-a: Not Deployed</p> <p>sds-rlghnc-b: Not Deployed</p> <p>qs-rlghnc: Not Deployed</p> <p>sds-mrsvnc-a: Not Deployed</p> <p>sds-mrsvnc-b: Not Deployed</p> <p>qs-mrsvnc: Not Deployed</p> <p>turks-sds-SO-a: Not Deployed</p> <p>turks-sds-SO-b: Not Deployed</p> <p>turks-DP-01: Not Deployed</p> <p>turks-DP-02: Not Deployed</p> <p>kauai-sds-SO-a: Not Deployed</p> <p>kauai-sds-SO-b: Not Deployed</p> <p>kauai-DP-01: Not Deployed</p> <p>kauai-DP-02: Not Deployed</p> <p>florence-sds-SO-a: Not Deployed</p> <p>florence-sds-SO-b: Not Deployed</p> <p>florence-DP-01: Not Deployed</p> <p>florence-DP-02: Not Deployed</p>
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>		

Appendix I Adding the SDS ISO to the PM&C Software Repository



This procedure is not applicable if SDS is deployed in a Cloud environment

STOP !

This procedure must be done once for each the PM&C at each DSR Signaling site that contains SDS SOAM/DP servers.

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

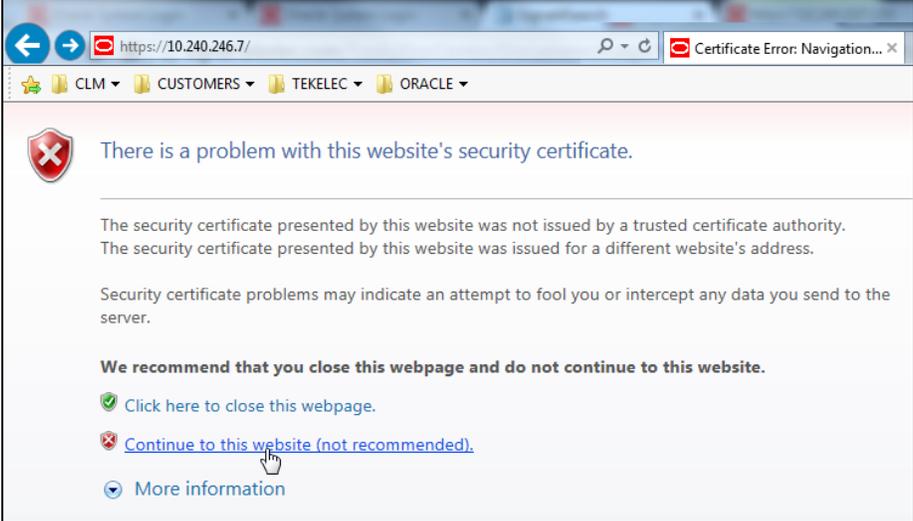
SHOULD ANY STEP IN THIS PROCEDURE FAIL, IT IS RECOMMENDED TO STOP AND CONTACT MOS FOR ASSISTANCE BEFORE CONTINUING!

Appendix I: Adding the SDS ISO to the PM&C Software Repository

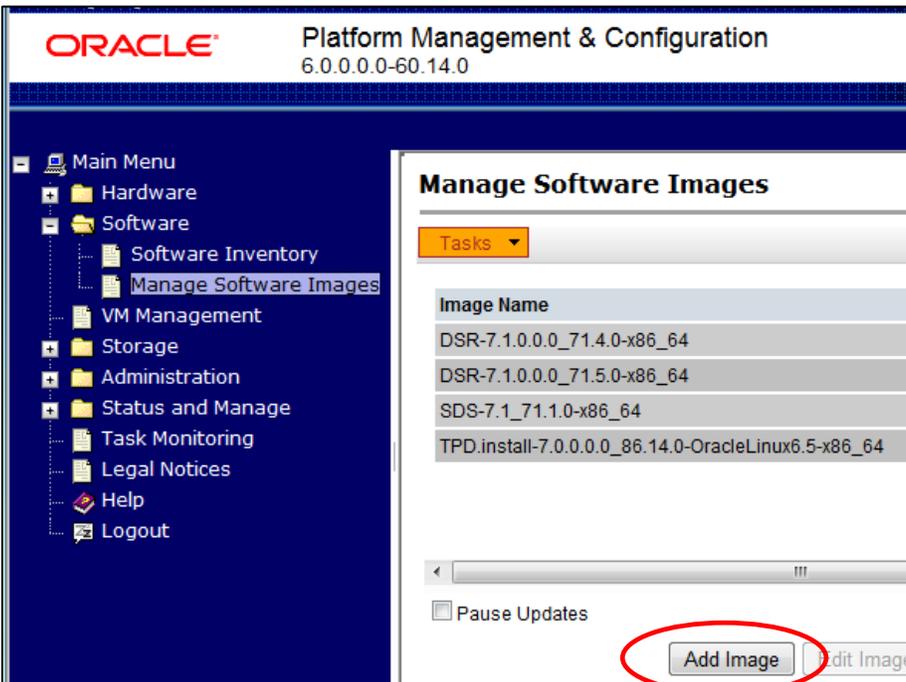
Step	Procedure	Result
1. <input type="checkbox"/>	Primary SDS NOAM VIP: Using the VIP address, login to the “Active” Primary SDS NOAM with the admusr account.	CentOS release 5.7 (Final) Kernel 2.6.18-274.7.1.el5prere15.0.0_72.32.0 on an x86_64 sds-rlghnc-a login: admusr Password: <admusr_password>
2. <input type="checkbox"/>	Primary SDS NOAM VIP: The user will be presented with output similar to that shown to the right.	*** TRUNCATED OUTPUT *** RELEASE=6.4 RUNID=00 VPATH=/var/TKLC/rundb:/usr/TKLC/appworks:/usr/TKLC/awpcommon:/usr/TKLC/comagent-gui:/usr/TKLC/comagent: gui:/usr/TKLC/comagent:/usr/TKLC/sds PRODPATH=/opt/comcol/prod RUNID=00 [admusr@sds-rlghnc-a ~]\$
3. <input type="checkbox"/>	Primary SDS NOAM VIP: Access the “filemgmt” directory where the target ISO file was uploaded to.	[admusr@sds-rlghnc-a ~]\$ cd /var/TKLC/db/filemgmt/ [admusr@sds-rlghnc-a filemgmt]\$
4. <input type="checkbox"/>	Primary SDS NOAM VIP: Identify the exact name of the target ISO file.	[admusr@sds-rlghnc-a filemgmt]\$ ls -l *.iso -rw-rw-r-- 1 awadmin awadm 893536256 Jun 24 14:23 SDS-7.1.0.0.0_71.7.0-x86_64.iso [admusr@sds-rlghnc-a filemgmt]\$

SDS Software Upgrade Guide

Appendix I: Adding the SDS ISO to the PM&C Software Repository

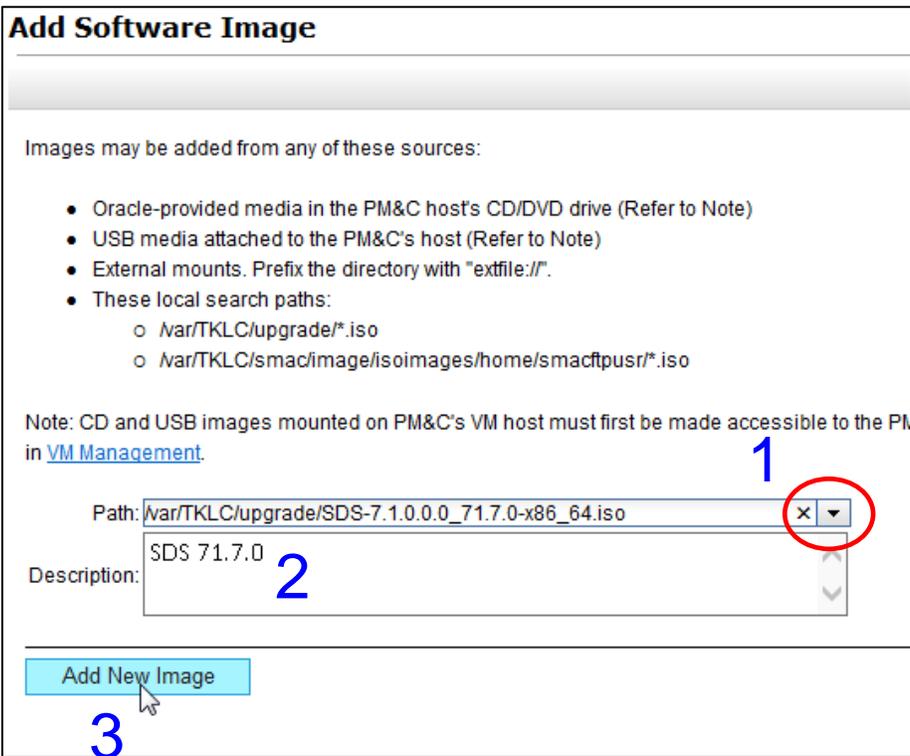
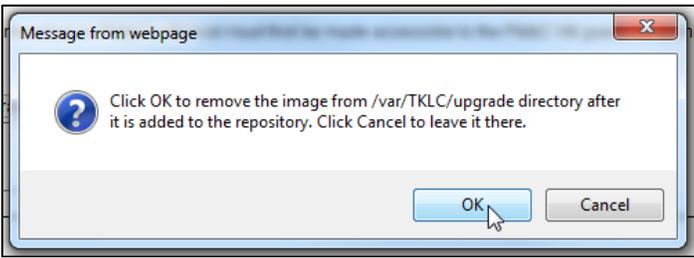
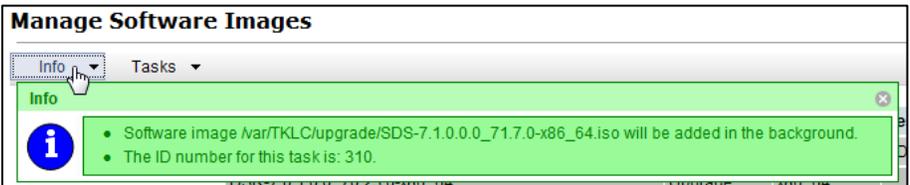
Step	Procedure	Result
<p>5.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP: Use Secure Copy (scp) to copy the target ISO file to the /var/TKLC/upgrade/ directory of the remote PM&C server as the “admusr” user.</p>	<pre>\$ scp -p SDS-7.1.0.0.0_71.7.0-x86_64.iso admusr@10.240.246.7:/var/TKLC/upgrade/ FIPS integrity verification test failed. The authenticity of host '10.240.246.7 (10.240.246.7)' can't be established. RSA key fingerprint is 23:aa:7e:12:40:d6:20:d6:19:62:c0:07:9d:20:30:35. Are you sure you want to continue connecting (yes/no)? yes Warning: Permanently added '10.240.246.7' (RSA) to the list of known hosts. Password: <admusr_password> SDS-7.1.0.0.0_71.7.0-x86_64.iso 100% 852MB 11.2MB/s 01:16 [admusr@sds-rlghnc-a filemgmt]\$</pre>
<p>6.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP: Exit the CLI for the “Active” Primary SDS NOAM.</p>	<pre>[admusr@sds-rlghnc-a filemgmt]\$ exit logout</pre>
<p>7.</p> <input type="checkbox"/>	<p>PM&C Server: (GUI): 1) Launch approved Web browser Internet Explorer 8.0, 9.0 or 10.0 and connect to the Management IP Address assigned to PM&C Server associated with the SDS SOAM NE. 2) If a certificate error is received, click on the link which states... <i>“Continue to this website (not recommended).”</i></p>	

Appendix I: Adding the SDS ISO to the PM&C Software Repository

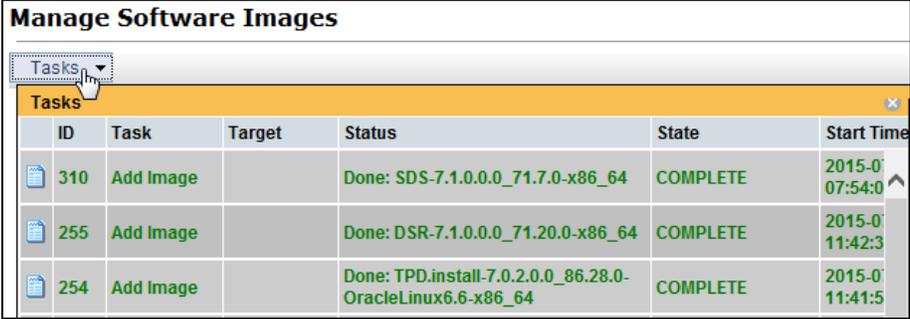
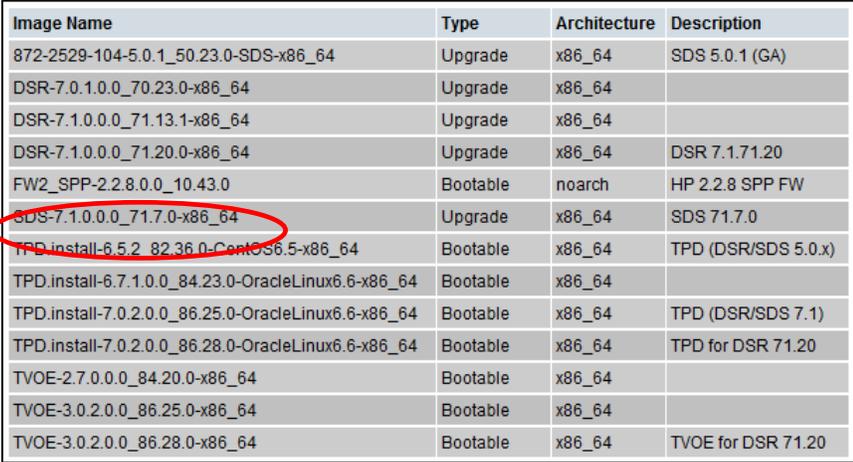
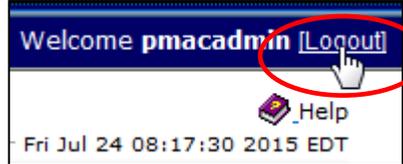
Step	Procedure	Result
<p>8.</p> <p><input type="checkbox"/></p>	<p>PM&C Server:</p> <p>The user should be presented a PM&C login screen similar to the one shown on the right.</p> <p>Login to the GUI using the default user and password.</p>	
<p>9.</p> <p><input type="checkbox"/></p>	<p>PM&C Server:</p> <p>1) Select...</p> <p>Main Menu → Software → Manage Software Images</p> <p>...as shown on the right.</p> <p>2) Select the “Add Image” button</p>	

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Appendix I: Adding the SDS ISO to the PM&C Software Repository

Step	Procedure	Result
<p>10.</p> <input type="checkbox"/>	<p>PM&C Server:</p> <p>1) Click the “Path:” pull-down and select the target ISO file from the list.</p> <p>2) Input the SDS release information in the “Description:” field.</p> <p>3) Select “Add New Image” button.</p>	 <p>Add Software Image</p> <p>Images may be added from any of these sources:</p> <ul style="list-style-type: none"> • Oracle-provided media in the PM&C host's CD/DVD drive (Refer to Note) • USB media attached to the PM&C's host (Refer to Note) • External mounts. Prefix the directory with "extfile://". • These local search paths: <ul style="list-style-type: none"> ○ /var/TKLC/upgrade/*.iso ○ /var/TKLC/smaclimage/isoimages/home/smacltpusr/*.iso <p>Note: CD and USB images mounted on PM&C's VM host must first be made accessible to the PM in VM Management.</p> <p>Path: /var/TKLC/upgrade/SDS-7.1.0.0.0_71.7.0-x86_64.iso</p> <p>Description: SDS 71.7.0</p> <p>Add New Image</p>
<p>11.</p> <input type="checkbox"/>	<p>PM&C Server:</p> <p>Click “OK” on the pop-up confirmation box to allow the target ISO file to be deleted after it has been successfully added to the PM&C Software Repository.</p>	 <p>Message from webpage</p> <p>Click OK to remove the image from /var/TKLC/upgrade directory after it is added to the repository. Click Cancel to leave it there.</p> <p>OK Cancel</p>
<p>12.</p> <input type="checkbox"/>	<p>PM&C Server:</p> <p>An info message will be raised to show a new background task.</p>	 <p>Manage Software Images</p> <p>Info</p> <p>Info</p> <ul style="list-style-type: none"> • Software image /var/TKLC/upgrade/SDS-7.1.0.0.0_71.7.0-x86_64.iso will be added in the background. • The ID number for this task is: 310.

Appendix I: Adding the SDS ISO to the PM&C Software Repository

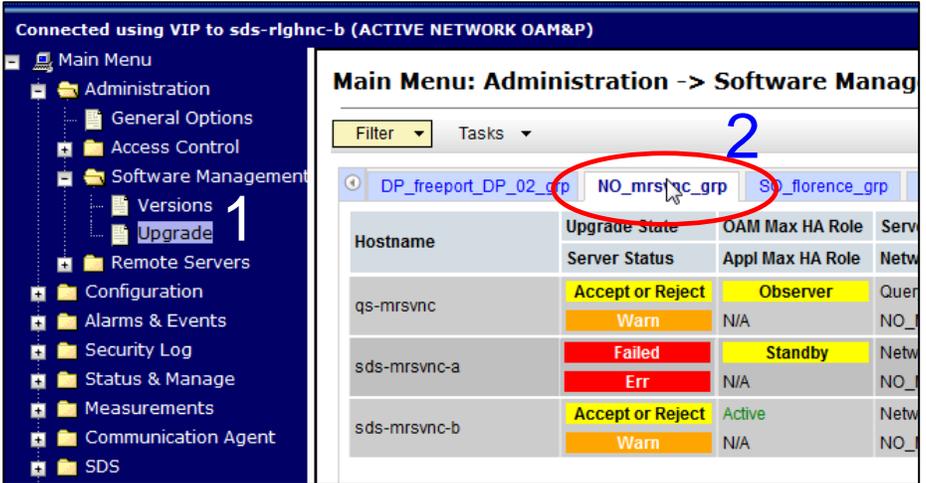
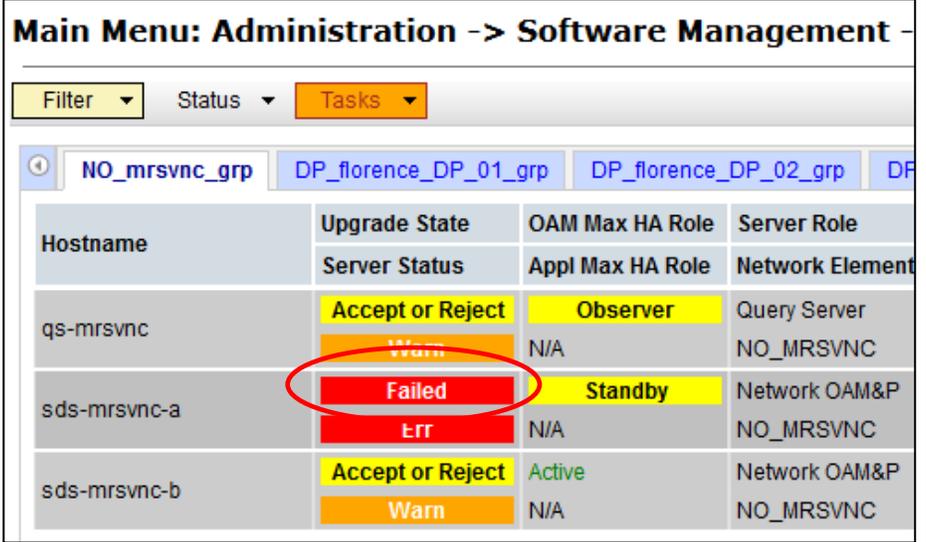
Step	Procedure	Result																																																								
<p>13.</p> <p><input type="checkbox"/></p>	<p>PM&C Server:</p> <p>The user may monitor the progress using the “Tasks” tab in the banner on the same screen.</p>	 <p>Manage Software Images</p> <table border="1"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> <th>Status</th> <th>State</th> <th>Start Time</th> </tr> </thead> <tbody> <tr> <td>310</td> <td>Add Image</td> <td></td> <td>Done: SDS-7.1.0.0.0_71.7.0-x86_64</td> <td>COMPLETE</td> <td>2015-07-24 07:54:0</td> </tr> <tr> <td>255</td> <td>Add Image</td> <td></td> <td>Done: DSR-7.1.0.0.0_71.20.0-x86_64</td> <td>COMPLETE</td> <td>2015-07-24 11:42:3</td> </tr> <tr> <td>254</td> <td>Add Image</td> <td></td> <td>Done: TPD.install-7.0.2.0.0_86.28.0-OracleLinux6.6-x86_64</td> <td>COMPLETE</td> <td>2015-07-24 11:41:5</td> </tr> </tbody> </table>	ID	Task	Target	Status	State	Start Time	310	Add Image		Done: SDS-7.1.0.0.0_71.7.0-x86_64	COMPLETE	2015-07-24 07:54:0	255	Add Image		Done: DSR-7.1.0.0.0_71.20.0-x86_64	COMPLETE	2015-07-24 11:42:3	254	Add Image		Done: TPD.install-7.0.2.0.0_86.28.0-OracleLinux6.6-x86_64	COMPLETE	2015-07-24 11:41:5																																
ID	Task	Target	Status	State	Start Time																																																					
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<p>14.</p> <p><input type="checkbox"/></p>	<p>PM&C Server:</p> <p>When the task is complete, the new software image will be displayed in the Image list.</p>	 <table border="1"> <thead> <tr> <th>Image Name</th> <th>Type</th> <th>Architecture</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>872-2529-104-5.0.1_50.23.0-SDS-x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td>SDS 5.0.1 (GA)</td> </tr> <tr> <td>DSR-7.0.1.0.0_70.23.0-x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td></td> </tr> <tr> <td>DSR-7.1.0.0.0_71.13.1-x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td></td> </tr> <tr> <td>DSR-7.1.0.0.0_71.20.0-x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td>DSR 7.1.71.20</td> </tr> <tr> <td>FW2_SPP-2.2.8.0.0_10.43.0</td> <td>Bootable</td> <td>noarch</td> <td>HP 2.2.8 SPP FW</td> </tr> <tr> <td>SDS-7.1.0.0.0_71.7.0-x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td>SDS 71.7.0</td> </tr> <tr> <td>TPD.install-6.5.2_82.36.0-CentOS6.5-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td>TPD (DSR/SDS 5.0.x)</td> </tr> <tr> <td>TPD.install-6.7.1.0.0_84.23.0-OracleLinux6.6-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td></td> </tr> <tr> <td>TPD.install-7.0.2.0.0_86.25.0-OracleLinux6.6-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td>TPD (DSR/SDS 7.1)</td> </tr> <tr> <td>TPD.install-7.0.2.0.0_86.28.0-OracleLinux6.6-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td>TPD for DSR 71.20</td> </tr> <tr> <td>TVOE-2.7.0.0.0_84.20.0-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td></td> </tr> <tr> <td>TVOE-3.0.2.0.0_86.25.0-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td></td> </tr> <tr> <td>TVOE-3.0.2.0.0_86.28.0-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td>TVOE for DSR 71.20</td> </tr> </tbody> </table>	Image Name	Type	Architecture	Description	872-2529-104-5.0.1_50.23.0-SDS-x86_64	Upgrade	x86_64	SDS 5.0.1 (GA)	DSR-7.0.1.0.0_70.23.0-x86_64	Upgrade	x86_64		DSR-7.1.0.0.0_71.13.1-x86_64	Upgrade	x86_64		DSR-7.1.0.0.0_71.20.0-x86_64	Upgrade	x86_64	DSR 7.1.71.20	FW2_SPP-2.2.8.0.0_10.43.0	Bootable	noarch	HP 2.2.8 SPP FW	SDS-7.1.0.0.0_71.7.0-x86_64	Upgrade	x86_64	SDS 71.7.0	TPD.install-6.5.2_82.36.0-CentOS6.5-x86_64	Bootable	x86_64	TPD (DSR/SDS 5.0.x)	TPD.install-6.7.1.0.0_84.23.0-OracleLinux6.6-x86_64	Bootable	x86_64		TPD.install-7.0.2.0.0_86.25.0-OracleLinux6.6-x86_64	Bootable	x86_64	TPD (DSR/SDS 7.1)	TPD.install-7.0.2.0.0_86.28.0-OracleLinux6.6-x86_64	Bootable	x86_64	TPD for DSR 71.20	TVOE-2.7.0.0.0_84.20.0-x86_64	Bootable	x86_64		TVOE-3.0.2.0.0_86.25.0-x86_64	Bootable	x86_64		TVOE-3.0.2.0.0_86.28.0-x86_64	Bootable	x86_64	TVOE for DSR 71.20
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<p>15.</p> <p><input type="checkbox"/></p>	<p>PM&C Server:</p> <p>Click the “Logout” link on the PM&C server GUI.</p>	 <p>Welcome pmacadmin Logout</p> <p>_Help</p> <p>Fri Jul 24 08:17:30 2015 EDT</p>																																																								
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>																																																										

Appendix J Recovering from a Failed Upgrade

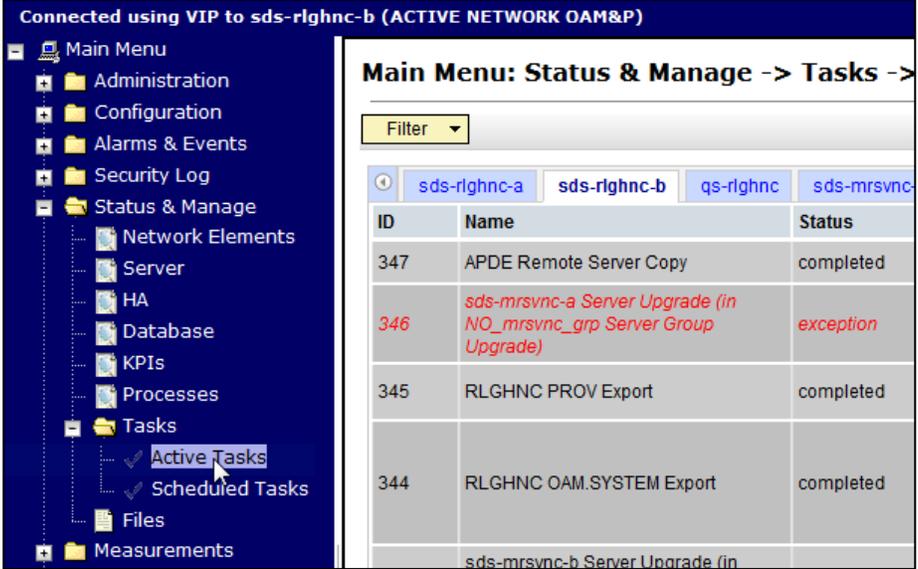
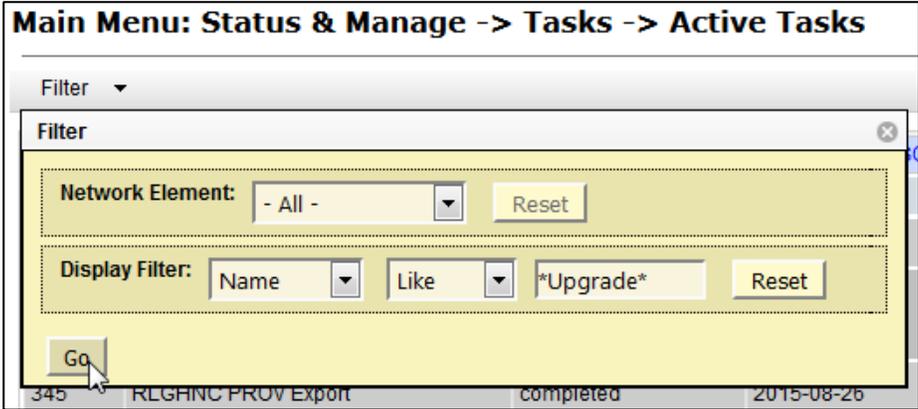
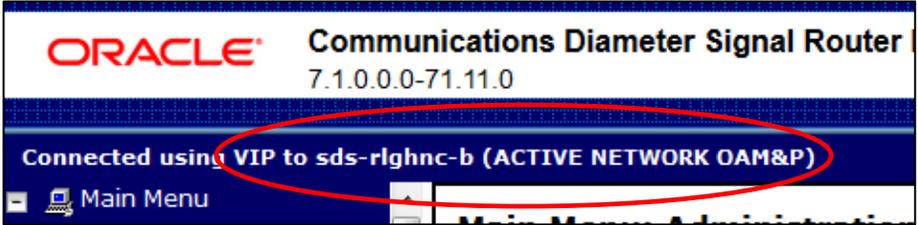
Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

SHOULD ANY STEP IN THIS PROCEDURE FAIL, IT IS RECOMMENDED TO STOP AND CONTACT MOS FOR ASSISTANCE BEFORE CONTINUING!

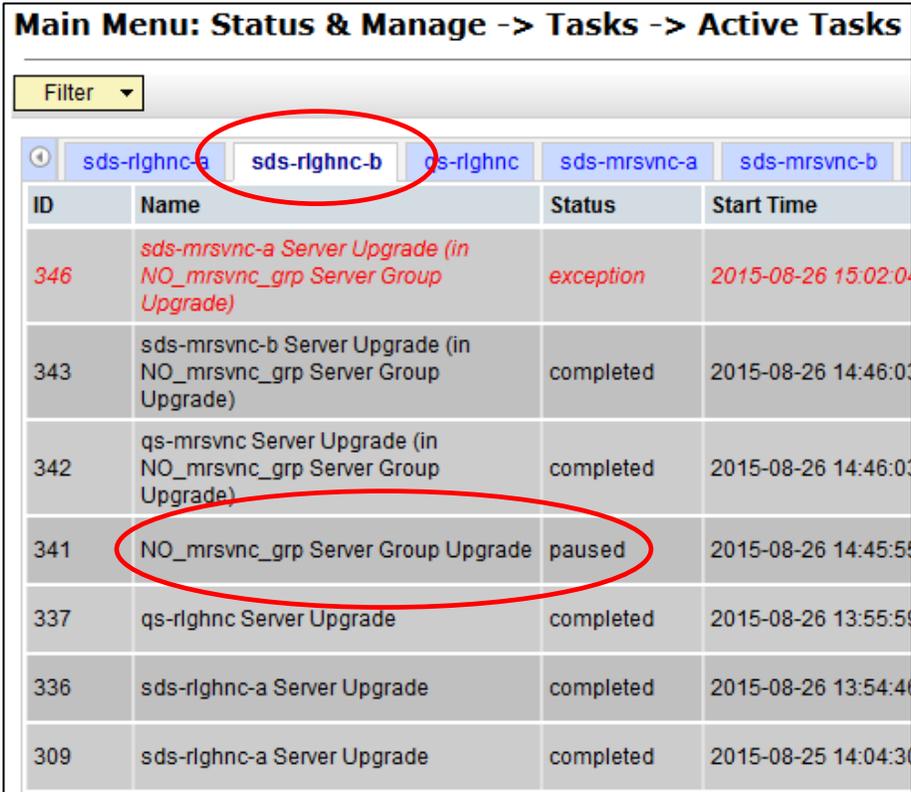
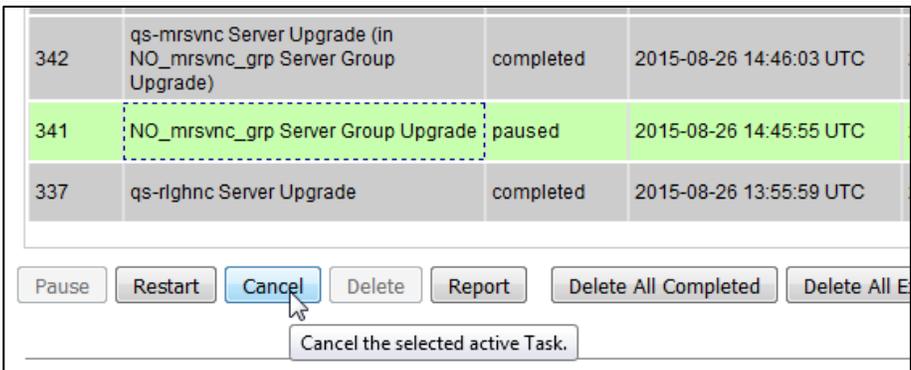
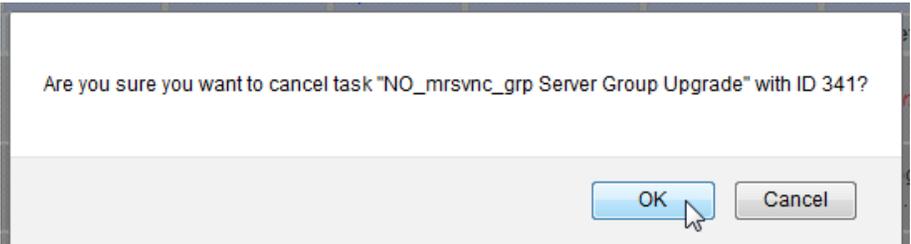
Appendix J: Recovering from a Failed Upgrade

Step	Procedure	Result																
1. <input type="checkbox"/>	Using VIP address, access the Primary SDS NOAM GUI .	Using VIP address, access the Primary SDS NOAM GUI as described in Appendix A .																
2. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>1) Select... Main Menu → Administration → Software Management → Upgrade 1</p> <p>2) Select Server Group tab for the server(s) being upgraded.</p>	 <p>Connected using VIP to sds-rlghnc-b (ACTIVE NETWORK OAM&P)</p> <p>Main Menu: Administration -> Software Manag</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Upgrade State</th> <th>OAM Max HA Role</th> <th>Server Role</th> </tr> </thead> <tbody> <tr> <td>qs-mrsvnc</td> <td>Accept or Reject Warn</td> <td>Observer</td> <td>Query Server</td> </tr> <tr> <td>sds-mrsvnc-a</td> <td>Failed Err</td> <td>Standby</td> <td>Network OAM&P</td> </tr> <tr> <td>sds-mrsvnc-b</td> <td>Accept or Reject Warn</td> <td>Active</td> <td>Network OAM&P</td> </tr> </tbody> </table>	Hostname	Upgrade State	OAM Max HA Role	Server Role	qs-mrsvnc	Accept or Reject Warn	Observer	Query Server	sds-mrsvnc-a	Failed Err	Standby	Network OAM&P	sds-mrsvnc-b	Accept or Reject Warn	Active	Network OAM&P
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3. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Verify the “Upgrade State” for each server undergoing SW upgrade.</p> <p>Identify any Server(s) with an “Upgrade State” of “Failed”.</p>	 <p>Main Menu: Administration -> Software Management -</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Upgrade State</th> <th>OAM Max HA Role</th> <th>Server Role</th> </tr> </thead> <tbody> <tr> <td>qs-mrsvnc</td> <td>Accept or Reject Warn</td> <td>Observer</td> <td>Query Server</td> </tr> <tr> <td>sds-mrsvnc-a</td> <td>Failed Err</td> <td>Standby</td> <td>Network OAM&P</td> </tr> <tr> <td>sds-mrsvnc-b</td> <td>Accept or Reject Warn</td> <td>Active</td> <td>Network OAM&P</td> </tr> </tbody> </table>	Hostname	Upgrade State	OAM Max HA Role	Server Role	qs-mrsvnc	Accept or Reject Warn	Observer	Query Server	sds-mrsvnc-a	Failed Err	Standby	Network OAM&P	sds-mrsvnc-b	Accept or Reject Warn	Active	Network OAM&P
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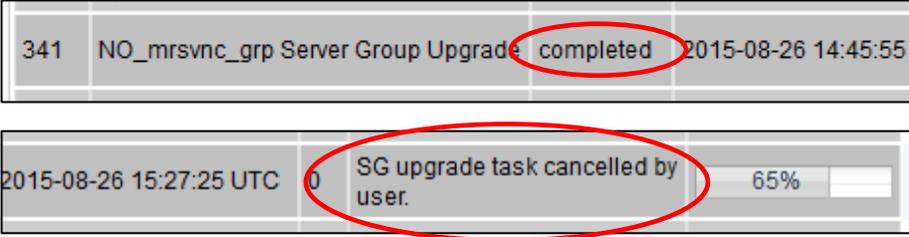
Appendix J: Recovering from a Failed Upgrade

Step	Procedure	Result															
		<ul style="list-style-type: none"> If the Failed Server was upgraded using the “Upgrade Server” option, then SKIP to Step 11 of this procedure. If the Failed Server was upgraded using the “Auto Upgrade” option (i.e. <i>Auto Server Group Upgrade</i>), then CONTINUE to Step 4 of this procedure. 															
<p>4.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP: Select...</p> <p>Main Menu → Status & Manage → Tasks → Active Tasks</p> <p>...as shown on the right.</p>	 <table border="1"> <thead> <tr> <th>ID</th> <th>Name</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>347</td> <td>APDE Remote Server Copy</td> <td>completed</td> </tr> <tr> <td>346</td> <td>sds-mrsvnc-a Server Upgrade (in NO_mrsvnc_grp Server Group Upgrade)</td> <td>exception</td> </tr> <tr> <td>345</td> <td>RLGHNC PROV Export</td> <td>completed</td> </tr> <tr> <td>344</td> <td>RLGHNC OAM.SYSTEM Export</td> <td>completed</td> </tr> </tbody> </table>	ID	Name	Status	347	APDE Remote Server Copy	completed	346	sds-mrsvnc-a Server Upgrade (in NO_mrsvnc_grp Server Group Upgrade)	exception	345	RLGHNC PROV Export	completed	344	RLGHNC OAM.SYSTEM Export	completed
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344	RLGHNC OAM.SYSTEM Export	completed															
<p>5.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP: Filter the “Active Tasks” screen setting the parameters as shown.</p> <p>Display Filter Values:</p> <ol style="list-style-type: none"> Name Like *Upgrade* 																
<p>6.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP: Verify the hostname of the Primary Active SDS NOAM server from the GUI banner.</p>																

Appendix J: Recovering from a Failed Upgrade

Step	Procedure	Result																																
<p>7.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>1) If not auto-selected, select the tab displaying the hostname of the Primary Active SDS NOAM server identified in the previous step.</p> <p>2) Locate the task for the “Server Group Upgrade”. It will show a Status of “paused”.</p>	 <p>Main Menu: Status & Manage -> Tasks -> Active Tasks</p> <p>Filter ▾</p> <p>sds-rlghnc-a sds-rlghnc-b qs-rlghnc sds-mrsvnc-a sds-mrsvnc-b</p> <table border="1"> <thead> <tr> <th>ID</th> <th>Name</th> <th>Status</th> <th>Start Time</th> </tr> </thead> <tbody> <tr> <td>346</td> <td>sds-mrsvnc-a Server Upgrade (in NO_mrsvnc_grp Server Group Upgrade)</td> <td>exception</td> <td>2015-08-26 15:02:00</td> </tr> <tr> <td>343</td> <td>sds-mrsvnc-b Server Upgrade (in NO_mrsvnc_grp Server Group Upgrade)</td> <td>completed</td> <td>2015-08-26 14:46:00</td> </tr> <tr> <td>342</td> <td>qs-mrsvnc Server Upgrade (in NO_mrsvnc_grp Server Group Upgrade)</td> <td>completed</td> <td>2015-08-26 14:46:00</td> </tr> <tr> <td>341</td> <td>NO_mrsvnc_grp Server Group Upgrade</td> <td>paused</td> <td>2015-08-26 14:45:55</td> </tr> <tr> <td>337</td> <td>qs-rlghnc Server Upgrade</td> <td>completed</td> <td>2015-08-26 13:55:59</td> </tr> <tr> <td>336</td> <td>sds-rlghnc-a Server Upgrade</td> <td>completed</td> <td>2015-08-26 13:54:44</td> </tr> <tr> <td>309</td> <td>sds-rlghnc-a Server Upgrade</td> <td>completed</td> <td>2015-08-25 14:04:30</td> </tr> </tbody> </table>	ID	Name	Status	Start Time	346	sds-mrsvnc-a Server Upgrade (in NO_mrsvnc_grp Server Group Upgrade)	exception	2015-08-26 15:02:00	343	sds-mrsvnc-b Server Upgrade (in NO_mrsvnc_grp Server Group Upgrade)	completed	2015-08-26 14:46:00	342	qs-mrsvnc Server Upgrade (in NO_mrsvnc_grp Server Group Upgrade)	completed	2015-08-26 14:46:00	341	NO_mrsvnc_grp Server Group Upgrade	paused	2015-08-26 14:45:55	337	qs-rlghnc Server Upgrade	completed	2015-08-26 13:55:59	336	sds-rlghnc-a Server Upgrade	completed	2015-08-26 13:54:44	309	sds-rlghnc-a Server Upgrade	completed	2015-08-25 14:04:30
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<p>8.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>1) Select the “Server Group Upgrade” task with the cursor. It will become highlighted on the screen.</p> <p>2) Click the “Cancel” dialogue button to cancel the task.</p>	 <table border="1"> <tbody> <tr> <td>342</td> <td>qs-mrsvnc Server Upgrade (in NO_mrsvnc_grp Server Group Upgrade)</td> <td>completed</td> <td>2015-08-26 14:46:03 UTC</td> </tr> <tr> <td>341</td> <td>NO_mrsvnc_grp Server Group Upgrade</td> <td>paused</td> <td>2015-08-26 14:45:55 UTC</td> </tr> <tr> <td>337</td> <td>qs-rlghnc Server Upgrade</td> <td>completed</td> <td>2015-08-26 13:55:59 UTC</td> </tr> </tbody> </table> <p>Pause Restart Cancel Delete Report Delete All Completed Delete All E</p> <p>Cancel the selected active Task.</p>	342	qs-mrsvnc Server Upgrade (in NO_mrsvnc_grp Server Group Upgrade)	completed	2015-08-26 14:46:03 UTC	341	NO_mrsvnc_grp Server Group Upgrade	paused	2015-08-26 14:45:55 UTC	337	qs-rlghnc Server Upgrade	completed	2015-08-26 13:55:59 UTC																				
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<p>9.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>Click the “OK” button on the confirmation box.</p>	 <p>Are you sure you want to cancel task "NO_mrsvnc_grp Server Group Upgrade" with ID 341?</p> <p>OK Cancel</p>																																

Appendix J: Recovering from a Failed Upgrade

Step	Procedure	Result
<p>10.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP: For the “Server Group Upgrade” task...</p> <p>1) Verify that the Status has changed from “paused” to “completed”.</p> <p>2) Verify that the Result Details column now states “SG upgrade task cancelled by user.”</p>	 <p>The screenshot shows two task entries. The first entry, ID 341, is for 'NO_mrsvnc_grp Server Group Upgrade' and is marked as 'completed' at 2015-08-26 14:45:55. The second entry, ID 0, is for 'SG upgrade task cancelled by user' and is at 65% completion at 2015-08-26 15:27:25 UTC. Red circles highlight the 'completed' status and the cancellation message.</p>
<p>11.</p> <input type="checkbox"/>	<p>Failed Server (CLI): Using the XMI address, login to the Failed Server with the admusr account.</p>	<pre>CentOS release 5.7 (Final) Kernel 2.6.18-274.7.1.el5prere15.0.0_72.32.0 on an x86_64 sds-mrsvnc-a login: admusr Password: <admusr_password></pre>
<p>12.</p> <input type="checkbox"/>	<p>Failed Server (CLI): The user will be presented with output similar to that shown to the right.</p>	<pre>*** TRUNCATED OUTPUT *** RELEASE=6.4 RUNID=00 VPATH=/var/TKLC/rundb:/usr/TKLC/appworks:/usr/TKLC/awpcommon:/u sr/TKLC/comagent-gui:/usr/TKLC/comagent- gui:/usr/TKLC/comagent:/usr/TKLC/sds PRODPATH=/opt/comcol/prod RUNID=00 [admusr@sds-mrsvnc-a ~]\$</pre>
<p>13.</p> <input type="checkbox"/>	<p>Failed Server (CLI): Inspect the “upgrade.log” file to identify the reason for the failure.</p>	<pre>[admusr@sds-mrsvnc-a ~]\$ tail /var/TKLC/log/upgrade/upgrade.log 1439256874:: INFO: Removing '/etc/my.cnf' from RCS repository 1439256874:: INFO: Removing '/etc/pam.d/password-auth' from RCS repository 1439256874:: INFO: Removing '/etc/pam.d/system-auth' from RCS repository 1439256874:: INFO: Removing '/etc/sysconfig/network- scripts/ifcfg-eth0' from RCS repository 1439256874:: INFO: Removing '/var/lib/prelink/force' from RCS repository 1439256874::Marking task 1439256861.0 as finished. 1439256874:: 1440613685::Early Checks failed for the next upgrade 1440613691::Look at earlyChecks.log for more info 1440613691:: [admusr@sds-mrsvnc-a ~]\$</pre>

Appendix J: Recovering from a Failed Upgrade

Step	Procedure	Result
<p>14.</p> <input type="checkbox"/>	<p>Failed Server (CLI):</p> <p>If the “earlyChecks.log” file is identified as the source, look for the Errors contained in that file.</p>	<pre>[admusr@sds-mrsvnc-a upgrade]\$ grep ERROR /var/TKLC/log/upgrade/earlyChecks.log ERROR: There are alarms on the system! ERROR: <<< OUTPUT >>> ERROR: SEQ: 15 UPTIME: 2070747 BIRTH: 1438969736 TYPE: SET ALARM: TKSPLATMI10 tpdNTPDaemonNotSynchronizedWarning 1.3.6.1.4.1.323. 5.3.18.3.1.3.10 32509 Communications Communications Subsystem Failure ERROR: <<< END OUTPUT >>> ERROR: earlyUpgradeChecks() code failed for Upgrade::EarlyPolicy::TPDEarlyChecks ERROR: Failed running earlyUpgradeChecks() code ERROR: Early Upgrade Checks Failed! [admusr@sds-mrsvnc-a upgrade]\$</pre>
<div style="display: flex; align-items: center;">  <ul style="list-style-type: none"> Although outside of the scope of this document, the user is expected to use standard troubleshooting techniques to clear the alarm condition from the Failed Server. If troubleshooting assistance is needed, it is recommended to contact MOS as described in Appendix N - Accessing My Oracle Support (MOS). <p style="background-color: yellow; padding: 5px; display: inline-block;">DO NOT PROCEED TO STEP 15 OF THIS PROCEDURE UNTIL THE ALARM CONDITION HAS BEEN CLEARED!</p> </div>		
<p>15.</p> <input type="checkbox"/>	<p>Failed Server (CLI):</p> <p>Use the alarmMgr utility to verify that all Platform alarms have been cleared from the system.</p>	<pre>[admusr@sds-mrsvnc-b ~]\$ alarmMgr -alarmStatus [admusr@sds-mrsvnc-b ~]\$</pre>
<p>16.</p> <input type="checkbox"/>	<p>Failed Server (CLI):</p> <p>Exit the CLI for the Failed Server.</p>	<pre>[admusr@sds-mrsvnc-a ~]\$ exit logout</pre>
<p>17.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP (GUI):</p> <p>Re-execute the Server Upgrade.</p> <p>NOTE: <i>Once failed, the Auto Server Group Upgrade (i.e. Auto Upgrade) option should not be repeated for that Server Group.</i></p>	<ul style="list-style-type: none"> Return to the referring Upgrade procedure and re-execute SW Upgrade for the Failed Server using the “Upgrade Server” option Only!
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>		

Appendix K Activating Subscriber Timestamp

If the customer intends to use the Subscriber Timestamp feature, it must be activated by this procedure once the upgrade is complete and accepted. This procedure is to be executed only after a major upgrade from SDS 5.0 or 7.1 to SDS 7.2. This procedure is not necessary for a 7.2 incremental upgrade.

This procedure should be executed only after the upgrade to SDS 7.2 is Accepted.

Do not execute this procedure if the Subscriber Timestamp feature will not be used.

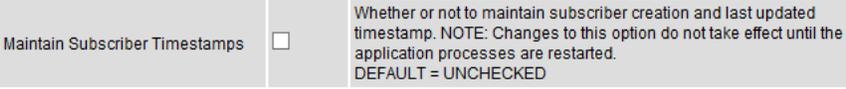
Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

SHOULD ANY STEP IN THIS PROCEDURE FAIL, IT IS RECOMMENDED TO STOP AND CONTACT MOS FOR ASSISTANCE BEFORE CONTINUING!

Appendix K: Activating Subscriber Timestamp

Step	Procedure	Result
1. <input type="checkbox"/>	Primary SDS NOAM VIP (CLI): Using the VIP address, login to the “ Active ” Primary SDS NOAM with the admusr account.	CentOS release 5.7 (Final) Kernel 2.6.18-274.7.1.el5prere15.0.0_72.32.0 on an x86_64 sds-rlghnc-a login: admusr Password: <admusr_password>
2.	Primary SDS NOAM VIP (CLI): The user will be presented with output similar to that shown to the right.	*** TRUNCATED OUTPUT *** RELEASE=6.4 RUNID=00 VPATH=/var/TKLC/rundb:/usr/TKLC/appworks:/usr/TKLC/awpcommon: /usr/TKLC/comagent-gui:/usr/TKLC/comagent- gui:/usr/TKLC/comagent:/usr/TKLC/sds PRODPATH=/opt/comcol/prod RUNID=00 [admusr@sds-rlghnc-a ~]\$
3.	Primary SDS NOAM VIP (CLI): Activate the Subscriber Timestamp feature Note: The Subscriber Timestamp feature can be deactivated with the “deactivate” parameter if desired.	[admusr@sds-rlghnc-a ~]\$ sdsSubscriberTimestamp activate
4.	Primary SDS NOAM VIP (CLI): The user will be presented with output similar to that shown to the right.	[admusr@ sds-rlghnc-a ~]\$ sdsSubscriberTimestamp activate [Fri Dec 4 00:07:25 EST 2015 :: sdsSubscriberTimestamp] Ha status is Active. Checking Cluster State. [Fri Dec 4 00:07:25 EST 2015 :: sdsSubscriberTimestamp] Ha Cluster status is Primary. [Fri Dec 4 00:07:25 EST 2015 :: sdsSubscriberTimestamp] Feature is activated successfully

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<p>5.</p>	<p>Primary SDS NOAM VIP (GUI):</p> <p>When it is desired to enable the timestamp feature,</p> <p>Select...</p> <p><u>Main Menu</u> → SDS → Configuration → Options</p> <p>Select the Maintain Subscriber Timestamps checkbox.</p>	
<p style="text-align: center;">THIS PROCEDURE HAS BEEN COMPLETED</p>		

Appendix L Adding NEW SOAM Profile on Existing VM



STOP !

The procedures in this appendix can be run **ONLY AFTER** the SDS has been upgraded to Release 7.2 or later, and the upgrade has been accepted



STOP !

Updating the SOAM VM Profile is an independent procedure from the SDS upgrade and should be scheduled in a separate Maintenance Window

The procedures in this appendix provide the instructions necessary to update the SOAM VM profile to support 1 billion subscribers. **This appendix applies only to systems that have been upgraded to Release 7.2 or later. The upgrade must be accepted prior to initiating these procedures.**

The SOAM VMs are updated with the new profile using the following sequence:

1. Add the SDS 7.2 ISO to the PMAC repository (Procedure 12)
2. Remove the SOAM from the SOAM server group (Procedure 13)
3. Delete the existing SOAM VM (Procedure 14)
4. Recreate the SOAM VM with the new profile (Procedure 14)
5. Add the new SOAM VM to the SOAM server group (Procedure 15)

In order to access the 1 billion subscriber VM profile, the SDS 7.2 ISO must be available in the PMAC software repository. Procedure 12 copies the SDS 7.2 ISO from the SDS to the PMAC, and adds the image to the repository.

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

SHOULD ANY STEP IN THIS PROCEDURE FAIL, IT IS RECOMMENDED TO STOP AND CONTACT MOS FOR ASSISTANCE BEFORE CONTINUING!

Procedure 12: Add SDS software images to PMAC server

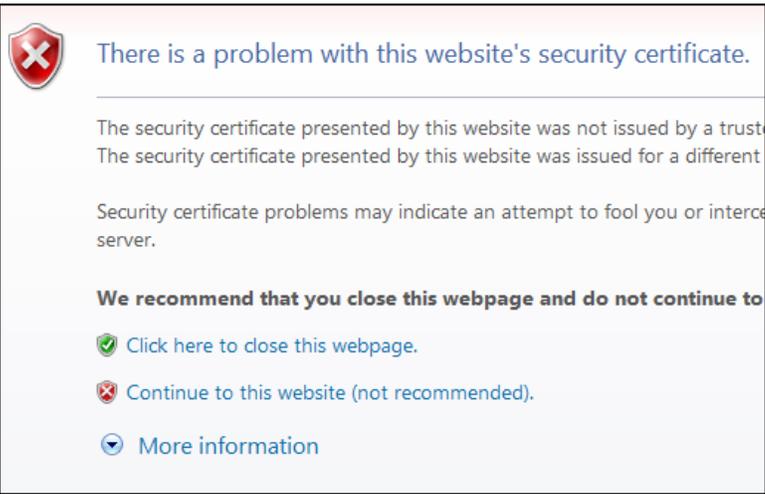
Step	Procedure	Result
1.	<p>Active SDS VIP (CLI):</p> <p>1) Access the command prompt.</p> <p>2) Log into the server as the "admusr" user.</p>	<pre>login: admusr Using keyboard-interactive authentication. Password: <admusr_password> \$</pre>

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Check off (√) each step as it is completed. Boxes have been provided for this purpose under each step number.

SHOULD ANY STEP IN THIS PROCEDURE FAIL, IT IS RECOMMENDED TO STOP AND CONTACT MOS FOR ASSISTANCE BEFORE CONTINUING!

Procedure 12: Add SDS software images to PMAC server

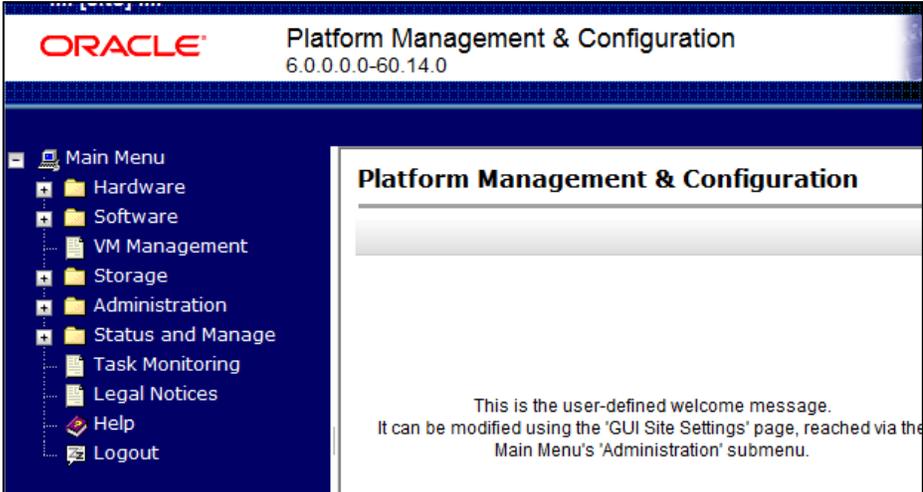
Step	Procedure	Result
2.	Active SDS VIP (CLI): “cd” into the /var/TKLC/upgrade/ directory.	\$ cd /var/TKLC/upgrade/ \$
3.	Active SDS VIP (CLI): Verify that the SDS ISO file is present.	\$ ls SDS-7.1.0.0.0_71.9.0-x86_64.iso \$
4.	Active SDS VIP (CLI): “scp” the SDS ISO file to the PMAC Server as shown to the right..	\$ scp -p SDS-7.1.0.0.0_71.9.0-x86_64.iso admusr@<PMAC_Mgmt_IP_address>:/var/TKLC/upgrade/ Password: <admusr_password> SDS-7.1.0.0.0_71.9.0-x86_64.iso 100% 853MB 53.3MB/s 00:16 \$
5. <input type="checkbox"/>	PMAC Server GUI: Launch an approved web browser and connect to the Mgmt IP Address of the PMAC Guest server at the SOAM site. NOTE: <i>If presented with the “security certificate” warning screen shown to the right, choose the following option: “Continue to this website (not recommended)”.</i>	

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Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

SHOULD ANY STEP IN THIS PROCEDURE FAIL, IT IS RECOMMENDED TO STOP AND CONTACT MOS FOR ASSISTANCE BEFORE CONTINUING!

Procedure 12: Add SDS software images to PMAC server

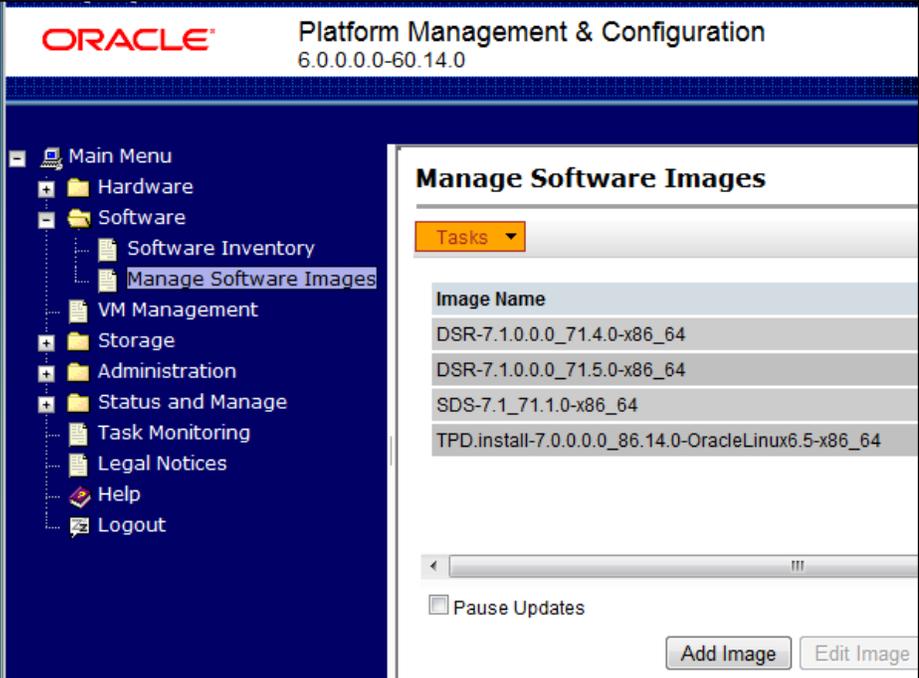
Step	Procedure	Result
<p>6.</p> <input type="checkbox"/>	<p>PMAC Server GUI: The user should be presented the login screen shown on the right.</p> <p>Login to the PMAC using the default user and password.</p>	
<p>7.</p> <input type="checkbox"/>	<p>PMAC Server GUI: The user should be presented the PMAC Main Menu as shown on the right.</p>	

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Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

SHOULD ANY STEP IN THIS PROCEDURE FAIL, IT IS RECOMMENDED TO STOP AND CONTACT MOS FOR ASSISTANCE BEFORE CONTINUING!

Procedure 12: Add SDS software images to PMAC server

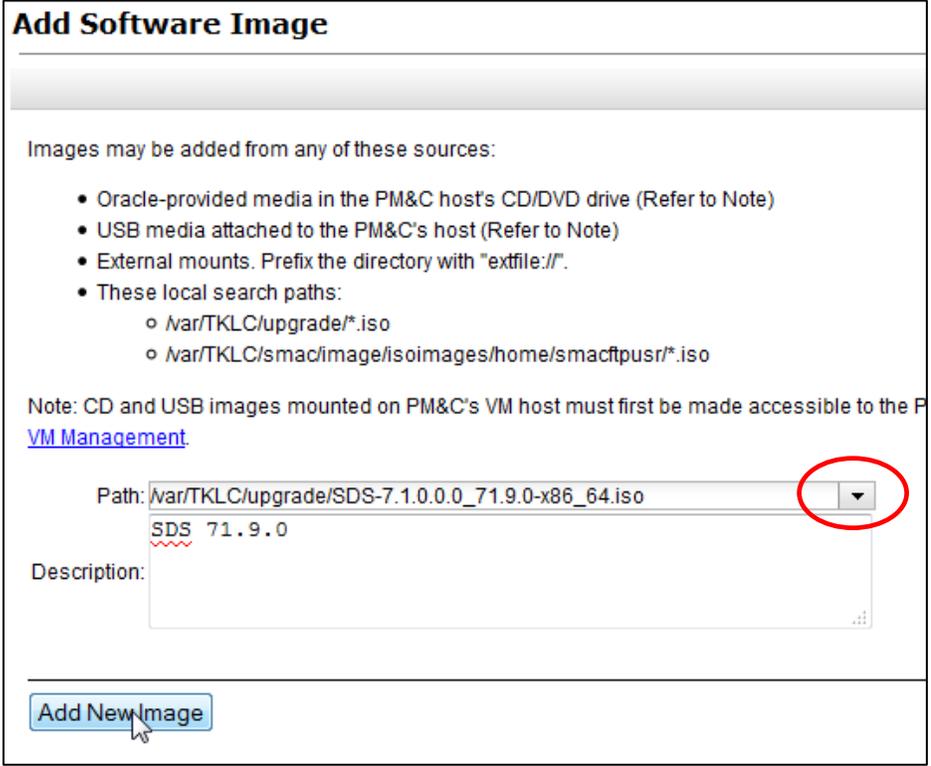
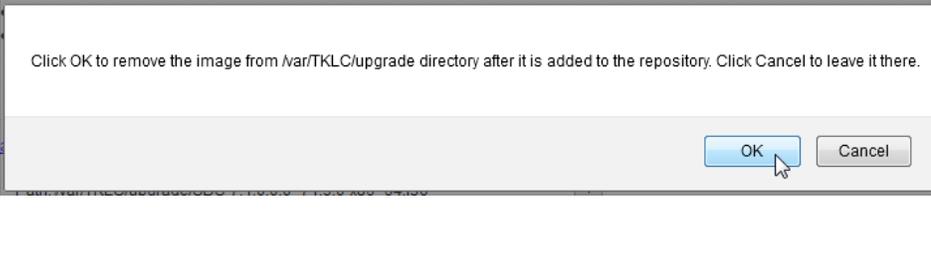
Step	Procedure	Result
<p>8.</p> <input type="checkbox"/>	<p>PMAC Server GUI: 1) Select...</p> <p>Main Menu → Software → Manage Software Images</p> <p>...as shown on the right.</p> <p>2) Select the “Add Image” button</p>	

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Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

SHOULD ANY STEP IN THIS PROCEDURE FAIL, IT IS RECOMMENDED TO STOP AND CONTACT MOS FOR ASSISTANCE BEFORE CONTINUING!

Procedure 12: Add SDS software images to PMAC server

Step	Procedure	Result
<p>9.</p> <input type="checkbox"/>	<p>PMAC Server GUI:</p> <p>1) Click the “Path:” pull-down menu and select the SDS ISO file from the /var/TKLC/upgrade directory.</p> <p>2) Use the last 3 places of the SDS release number to add a comment in the Description field.</p> <p>3) Click the “Add New Image” dialogue button.</p>	 <p>Add Software Image</p> <p>Images may be added from any of these sources:</p> <ul style="list-style-type: none"> • Oracle-provided media in the PM&C host's CD/DVD drive (Refer to Note) • USB media attached to the PM&C's host (Refer to Note) • External mounts. Prefix the directory with "extfile://". • These local search paths: <ul style="list-style-type: none"> ◦ /var/TKLC/upgrade/*.iso ◦ /var/TKLC/smac/image/isoimages/home/smacftpusr/*.iso <p>Note: CD and USB images mounted on PM&C's VM host must first be made accessible to the F VM Management.</p> <p>Path: /var/TKLC/upgrade/SDS-7.1.0.0_71.9.0-x86_64.iso</p> <p>SDS 71.9.0</p> <p>Description:</p> <p>Add New Image</p>
<p>10.</p>	<p>PMAC Server GUI:</p> <p>Click the “OK” button on the confirmation dialogue box to remove the source image after it has been successfully added to the SW Inventory.</p>	 <p>Click OK to remove the image from /var/TKLC/upgrade directory after it is added to the repository. Click Cancel to leave it there.</p> <p>OK Cancel</p>
<p>11.</p> <input type="checkbox"/>	<p>PMAC Server GUI:</p> <p>An info message will be raised to show a new background task.</p>	 <p>Manage Software Images</p> <p>Info Tasks</p> <p>Info</p> <ul style="list-style-type: none"> • Software image /var/TKLC/upgrade/SDS-7.1.0.0_71.9.0-x86_64.iso will be added in the background. • The ID number for this task is: 389.

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Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

SHOULD ANY STEP IN THIS PROCEDURE FAIL, IT IS RECOMMENDED TO STOP AND CONTACT MOS FOR ASSISTANCE BEFORE CONTINUING!

Procedure 12: Add SDS software images to PMAC server

Step	Procedure	Result																																																
12. <input type="checkbox"/>	PMAC Server GUI: Watch the extraction progress in the lower task list on the same page.	<table border="1"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> <th>Status</th> <th>Running Time</th> <th>Start Time</th> <th>Progress</th> </tr> </thead> <tbody> <tr> <td>773</td> <td>Add Image</td> <td></td> <td>Extracting/Verifying image source.</td> <td>0:00:00</td> <td>2011-12-05 16:32:50</td> <td>11%</td> </tr> <tr> <td>762</td> <td>Add Image</td> <td></td> <td>Done: 872-2329-103-3.0.0_30.14.0-DSR-x86_64</td> <td>0:00:05</td> <td>2011-12-05 09:38:36</td> <td>100%</td> </tr> <tr> <td>739</td> <td>Add Image</td> <td></td> <td>Done: 872-2329-101-3.0.0_30.12.1-DSR-x86_64</td> <td>0:00:06</td> <td>2011-11-30 16:51:57</td> <td>100%</td> </tr> <tr> <td>729</td> <td>Add Image</td> <td></td> <td>Done: 872-2329-102-3.0.0_30.13.0-DSR-x86_64</td> <td>0:00:06</td> <td>2011-11-25 07:51:06</td> <td>100%</td> </tr> </tbody> </table>	ID	Task	Target	Status	Running Time	Start Time	Progress	773	Add Image		Extracting/Verifying image source.	0:00:00	2011-12-05 16:32:50	11%	762	Add Image		Done: 872-2329-103-3.0.0_30.14.0-DSR-x86_64	0:00:05	2011-12-05 09:38:36	100%	739	Add Image		Done: 872-2329-101-3.0.0_30.12.1-DSR-x86_64	0:00:06	2011-11-30 16:51:57	100%	729	Add Image		Done: 872-2329-102-3.0.0_30.13.0-DSR-x86_64	0:00:06	2011-11-25 07:51:06	100%													
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13. <input type="checkbox"/>	PMAC Server GUI: When the extraction task is complete, a new software image will be displayed.	<table border="1"> <thead> <tr> <th>Image Name</th> <th>Type</th> <th>Architecture</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>SDS--3.0.0_10.4.0--872-2358-102--x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td></td> </tr> <tr> <td>DSR--3.0.0_30.13.1--872-2329-102--x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td>DSR 30.13 test ISO with PMAC VM Profiles</td> </tr> <tr> <td>AWPSS7--5.0.0_50.10.0--872-2332-101--x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td>SS7 test ISO</td> </tr> <tr> <td>TPD--5.0.0_72.28.0--x86_64</td> <td>Bootable</td> <td>x86_64</td> <td>official TPD 5.0.0-72.28.0 Release</td> </tr> <tr> <td>TPD--5.0.0_72.20.0--x86_64</td> <td>Bootable</td> <td>x86_64</td> <td>Official TPD 72.20 release</td> </tr> <tr> <td>TPD--5.0.0_72.8.0--x86_64</td> <td>Bootable</td> <td>x86_64</td> <td>ISO for CPA</td> </tr> <tr> <td>DSR--3.0.0_30.12.1--872-2329-101--x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td>Iso for CPA/ComAgent testing</td> </tr> <tr> <td>DSR--3.0.0_30.13.0--872-2329-102--x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td>official DSR 30.13.0 Release</td> </tr> <tr> <td>DSR--3.0.0_30.14.0--872-2329-103--x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td>Official DSR 30.14 release</td> </tr> <tr> <td>DSR--3.0.0_30.11.0--872-2329-101--x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td>Official DSR 30.11 build.</td> </tr> <tr> <td>TVOE--1.0.0_72.30.0--872-2290-101--x86_64</td> <td>Bootable</td> <td>x86_64</td> <td>latest TVOE ISO</td> </tr> </tbody> </table>	Image Name	Type	Architecture	Description	SDS--3.0.0_10.4.0--872-2358-102--x86_64	Upgrade	x86_64		DSR--3.0.0_30.13.1--872-2329-102--x86_64	Upgrade	x86_64	DSR 30.13 test ISO with PMAC VM Profiles	AWPSS7--5.0.0_50.10.0--872-2332-101--x86_64	Upgrade	x86_64	SS7 test ISO	TPD--5.0.0_72.28.0--x86_64	Bootable	x86_64	official TPD 5.0.0-72.28.0 Release	TPD--5.0.0_72.20.0--x86_64	Bootable	x86_64	Official TPD 72.20 release	TPD--5.0.0_72.8.0--x86_64	Bootable	x86_64	ISO for CPA	DSR--3.0.0_30.12.1--872-2329-101--x86_64	Upgrade	x86_64	Iso for CPA/ComAgent testing	DSR--3.0.0_30.13.0--872-2329-102--x86_64	Upgrade	x86_64	official DSR 30.13.0 Release	DSR--3.0.0_30.14.0--872-2329-103--x86_64	Upgrade	x86_64	Official DSR 30.14 release	DSR--3.0.0_30.11.0--872-2329-101--x86_64	Upgrade	x86_64	Official DSR 30.11 build.	TVOE--1.0.0_72.30.0--872-2290-101--x86_64	Bootable	x86_64	latest TVOE ISO
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SDS--3.0.0_10.4.0--872-2358-102--x86_64	Upgrade	x86_64																																																
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TPD--5.0.0_72.20.0--x86_64	Bootable	x86_64	Official TPD 72.20 release																																															
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DSR--3.0.0_30.14.0--872-2329-103--x86_64	Upgrade	x86_64	Official DSR 30.14 release																																															
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TVOE--1.0.0_72.30.0--872-2290-101--x86_64	Bootable	x86_64	latest TVOE ISO																																															
14. <input type="checkbox"/>	PMAC Server GUI: Click the "Logout" link on the PMAC server GUI.																																																	
15.	SDS Health Check	Execute SDS Health Check procedures as specified in Appendix B .																																																
THIS PROCEDURE HAS BEEN COMPLETED																																																		

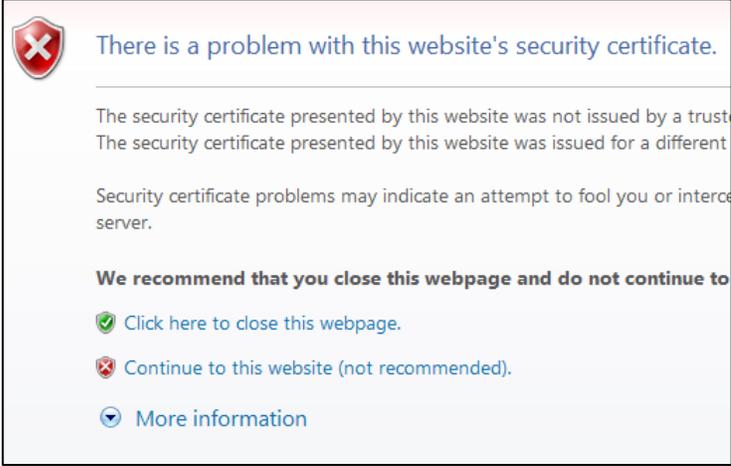
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Procedure 13 removes the existing SOAM from the SOAM server group.

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

Should ANY STEP IN THIS PROCEDURE FAIL, it is recommended to STOP AND Contact MOS FOR ASSISTANCE BEFORE CONTINUING!

Procedure 13: Removing the SDS SOAM VM from the SOAM Server Group

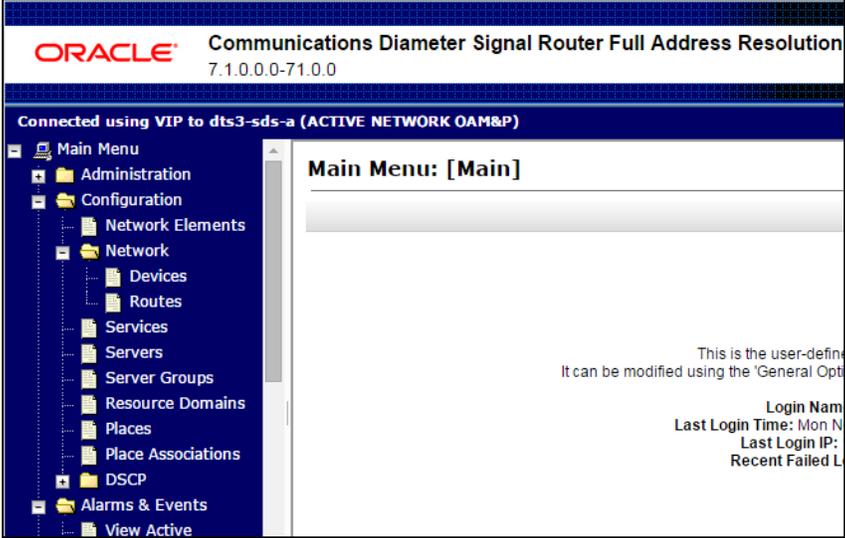
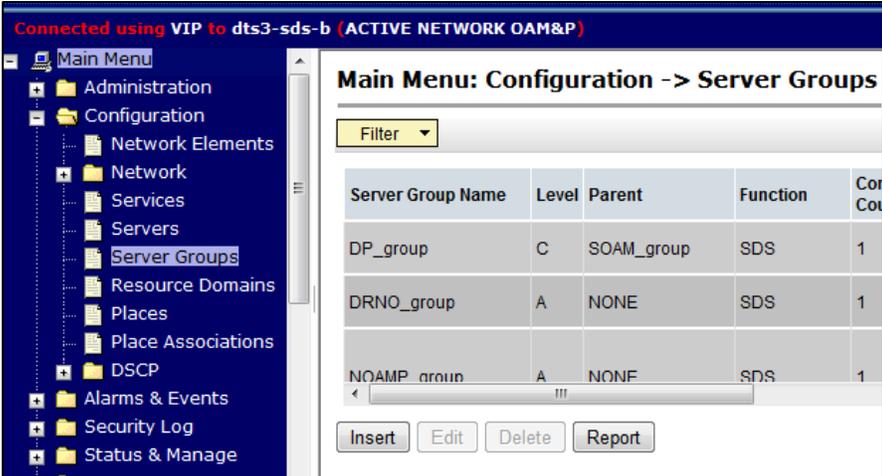
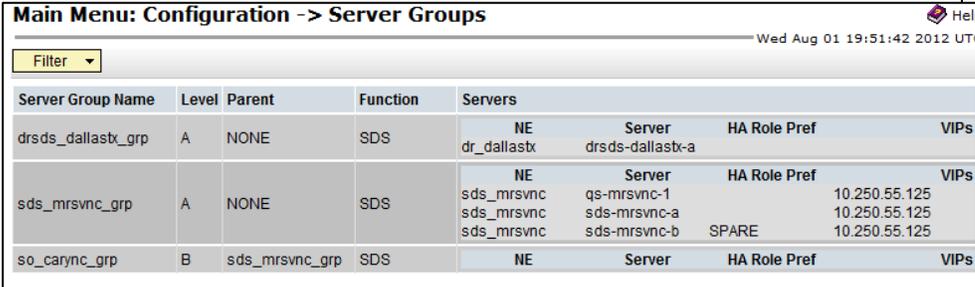
Step	Procedure	Result
<p>1.</p> <input type="checkbox"/>	<p>Primary NOAM VIP:</p> <p>Launch an approved web browser and connect to the NOAM VIP address</p> <p>NOTE: <i>If presented with the “security certificate” warning screen shown to the right, choose the following option: “Continue to this website (not recommended)”.</i></p>	
<p>2.</p> <input type="checkbox"/>	<p>Primary NOAM VIP:</p> <p>The user should be presented the login screen shown on the right.</p> <p>Login to the GUI using the default user and password.</p>	

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Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

Should ANY STEP IN THIS PROCEDURE FAIL, it is recommended to STOP AND Contact MOS FOR ASSISTANCE BEFORE CONTINUING!

Procedure 13: Removing the SDS SOAM VM from the SOAM Server Group

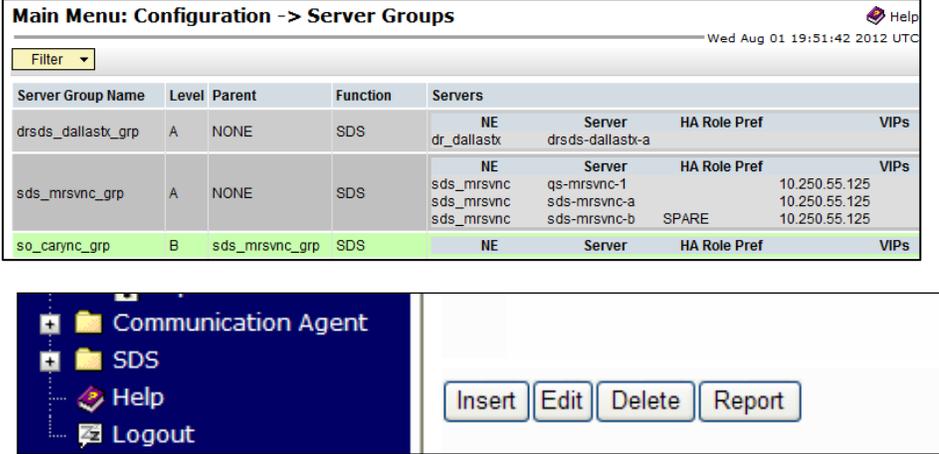
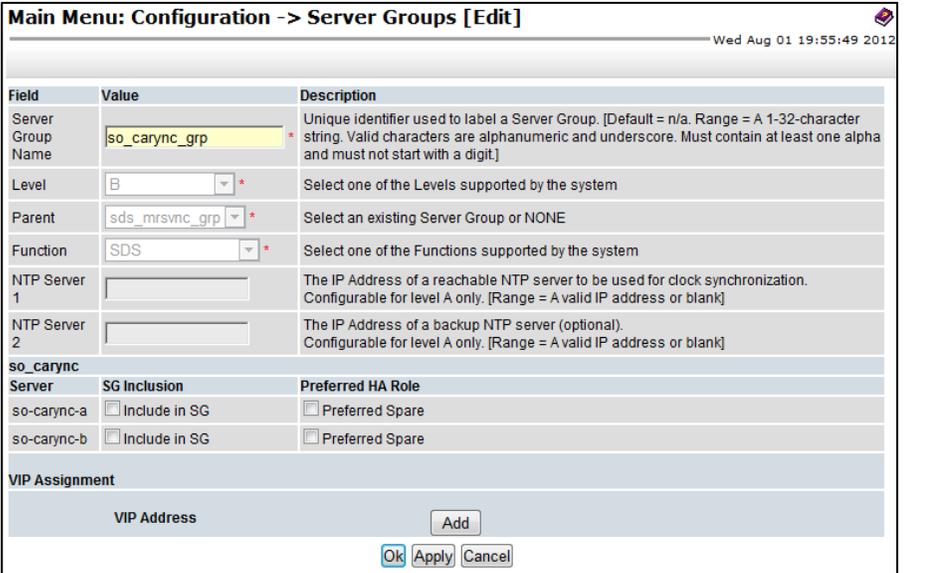
Step	Procedure	Result																												
<p>3.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>Primary NOAM VIP:</p> <p>The user should be presented the NOAM Main Menu as shown on the right.</p>																													
<p>14.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>Primary NOAM VIP:</p> <p>Select...</p> <p>Main Menu → Configuration → Server Groups</p> <p>...as shown on the right.</p>	 <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Con</th> <th>Cou</th> </tr> </thead> <tbody> <tr> <td>DP_group</td> <td>C</td> <td>SOAM_group</td> <td>SDS</td> <td>1</td> <td></td> </tr> <tr> <td>DRNO_group</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>1</td> <td></td> </tr> <tr> <td>NOAMP_group</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>1</td> <td></td> </tr> </tbody> </table>	Server Group Name	Level	Parent	Function	Con	Cou	DP_group	C	SOAM_group	SDS	1		DRNO_group	A	NONE	SDS	1		NOAMP_group	A	NONE	SDS	1					
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<p>15.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>Primary NOAM VIP:</p> <p>The Server Group entry should be shown on the “Server Groups” configuration screen as shown on the right.</p>	 <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Servers</th> <th>HA Role Pref</th> <th>VIPS</th> </tr> </thead> <tbody> <tr> <td>drdsds_dallastx_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>NE dr_dallastx</td> <td>Server drdsds-dallastx-a</td> <td></td> </tr> <tr> <td>sds_mrsvnc_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>NE sds_mrsvnc</td> <td>Server qs-mrsvnc-1 sds-mrsvnc-a sds-mrsvnc-b</td> <td>SPARE</td> </tr> <tr> <td>so_carync_grp</td> <td>B</td> <td>sds_mrsvnc_grp</td> <td>SDS</td> <td>NE</td> <td>Server</td> <td>HA Role Pref</td> </tr> </tbody> </table>	Server Group Name	Level	Parent	Function	Servers	HA Role Pref	VIPS	drdsds_dallastx_grp	A	NONE	SDS	NE dr_dallastx	Server drdsds-dallastx-a		sds_mrsvnc_grp	A	NONE	SDS	NE sds_mrsvnc	Server qs-mrsvnc-1 sds-mrsvnc-a sds-mrsvnc-b	SPARE	so_carync_grp	B	sds_mrsvnc_grp	SDS	NE	Server	HA Role Pref
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Procedure 13: Removing the SDS SOAM VM from the SOAM Server Group

Step	Procedure	Result																														
<p>16.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>Primary NOAM VIP:</p> <p>1) Select the row containing the Server Group with the SOAM server to be converted to the 1B Subscriber profile. The line entry should now be highlighted in GREEN.</p> <p>2) Select the “Edit” dialogue button from the bottom left corner of the screen.</p> <p>NOTE: The user may need to use the vertical scroll-bar in order to make the “Edit” dialogue button visible.</p>	 <p>Main Menu: Configuration -> Server Groups</p> <p>Filter</p> <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Servers</th> <th>HA Role Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>drdsds_dallastx_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>dr_dallastx</td> <td>Server</td> <td>10.250.55.125</td> </tr> <tr> <td>sds_mrsvnc_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>sds_mrsvnc</td> <td>Server</td> <td>10.250.55.125</td> </tr> <tr style="background-color: #90EE90;"> <td>so_carync_grp</td> <td>B</td> <td>sds_mrsvnc_grp</td> <td>SDS</td> <td>NE</td> <td>Server</td> <td>10.250.55.125</td> </tr> </tbody> </table> <p>Communication Agent SDS Help Logout</p> <p>Insert Edit Delete Report</p>	Server Group Name	Level	Parent	Function	Servers	HA Role Pref	VIPs	drdsds_dallastx_grp	A	NONE	SDS	dr_dallastx	Server	10.250.55.125	sds_mrsvnc_grp	A	NONE	SDS	sds_mrsvnc	Server	10.250.55.125	so_carync_grp	B	sds_mrsvnc_grp	SDS	NE	Server	10.250.55.125		
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<p>17.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>Primary NOAM VIP:</p> <p>The user will be presented with the “Server Groups [Edit]” screen as shown on the right.</p>	 <p>Main Menu: Configuration -> Server Groups [Edit]</p> <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name</td> <td>so_carync_grp *</td> <td>Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.]</td> </tr> <tr> <td>Level</td> <td>B *</td> <td>Select one of the Levels supported by the system</td> </tr> <tr> <td>Parent</td> <td>sds_mrsvnc_grp *</td> <td>Select an existing Server Group or NONE</td> </tr> <tr> <td>Function</td> <td>SDS *</td> <td>Select one of the Functions supported by the system</td> </tr> <tr> <td>NTP Server 1</td> <td></td> <td>The IP Address of a reachable NTP server to be used for clock synchronization. Configurable for level A only. [Range = A valid IP address or blank]</td> </tr> <tr> <td>NTP Server 2</td> <td></td> <td>The IP Address of a backup NTP server (optional). Configurable for level A only. [Range = A valid IP address or blank]</td> </tr> </tbody> </table> <p>so_carync</p> <table border="1"> <thead> <tr> <th>Server</th> <th>SG Inclusion</th> <th>Preferred HA Role</th> </tr> </thead> <tbody> <tr> <td>so-carync-a</td> <td><input type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Preferred Spare</td> </tr> <tr> <td>so-carync-b</td> <td><input type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Preferred Spare</td> </tr> </tbody> </table> <p>VIP Assignment</p> <p>VIP Address <input type="text"/> Add</p> <p>Ok Apply Cancel</p>	Field	Value	Description	Server Group Name	so_carync_grp *	Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.]	Level	B *	Select one of the Levels supported by the system	Parent	sds_mrsvnc_grp *	Select an existing Server Group or NONE	Function	SDS *	Select one of the Functions supported by the system	NTP Server 1		The IP Address of a reachable NTP server to be used for clock synchronization. Configurable for level A only. [Range = A valid IP address or blank]	NTP Server 2		The IP Address of a backup NTP server (optional). Configurable for level A only. [Range = A valid IP address or blank]	Server	SG Inclusion	Preferred HA Role	so-carync-a	<input type="checkbox"/> Include in SG	<input type="checkbox"/> Preferred Spare	so-carync-b	<input type="checkbox"/> Include in SG	<input type="checkbox"/> Preferred Spare
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Procedure 13: Removing the SDS SOAM VM from the SOAM Server Group

Step	Procedure	Result												
18. <input type="checkbox"/>	<p>Primary NOAM VIP:</p> <p>Remove the Checkmark from the Check Box to the left of the SOAM server name that you wish to remove from the Server Group.</p>	<table border="1"> <thead> <tr> <th>so_carync</th> <th>Server</th> <th>SG Inclusion</th> <th>Preferred HA Role</th> </tr> </thead> <tbody> <tr> <td></td> <td>so-carync-a</td> <td><input checked="" type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Preferred Spare</td> </tr> <tr> <td></td> <td>so-carync-b</td> <td><input type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Preferred Spare</td> </tr> </tbody> </table>	so_carync	Server	SG Inclusion	Preferred HA Role		so-carync-a	<input checked="" type="checkbox"/> Include in SG	<input type="checkbox"/> Preferred Spare		so-carync-b	<input type="checkbox"/> Include in SG	<input type="checkbox"/> Preferred Spare
so_carync	Server	SG Inclusion	Preferred HA Role											
	so-carync-a	<input checked="" type="checkbox"/> Include in SG	<input type="checkbox"/> Preferred Spare											
	so-carync-b	<input type="checkbox"/> Include in SG	<input type="checkbox"/> Preferred Spare											
19. <input type="checkbox"/>	<p>Primary NOAM VIP:</p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Select the “Apply” dialogue button.</p>	<p>Main Menu: Configuration -> Server Groups [Edit]</p> <p>Info</p> <p>Info</p> <ul style="list-style-type: none"> Pre-Validation passed - Data NOT committed ... <p>Network Element: so_carync</p> <p>Buttons: Ok, Apply, Cancel</p>												
20. <input type="checkbox"/>	<p>Primary NOAM VIP:</p> <p>The user should be presented with a banner information message stating “Data committed”.</p>	<p>Main Menu: Configuration -> Server Groups [Edit]</p> <p>Info</p> <p>Info</p> <ul style="list-style-type: none"> Data committed! <p>Network Element: so_carync</p> <p>Description: Unique identifier used to label... Valid characters are alphanumeric... not start with a digit.]</p>												
21. <input type="checkbox"/>	<p>Primary NOAM VIP:</p> <p>Click the “Logout” link on the SDS server GUI.</p>	<p>Welcome guiadmin [Logout]</p> <p>Fri Nov 18 14:43:32 2011 UTC</p> <p>Help</p> <p>age = A 1-32-character string. at least one alpha and must</p>												
THIS PROCEDURE HAS BEEN COMPLETED														

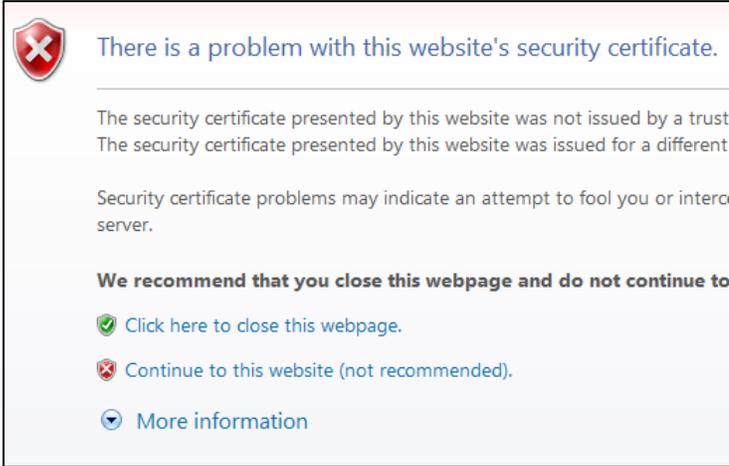
SDS Software Upgrade Guide

Procedure 14 deletes the existing SOAM VM and creates a new VM with the 1 billion subscriber profile.

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Procedure 14: Recreate the SDS SOAM VM with the 1B Subscriber profile

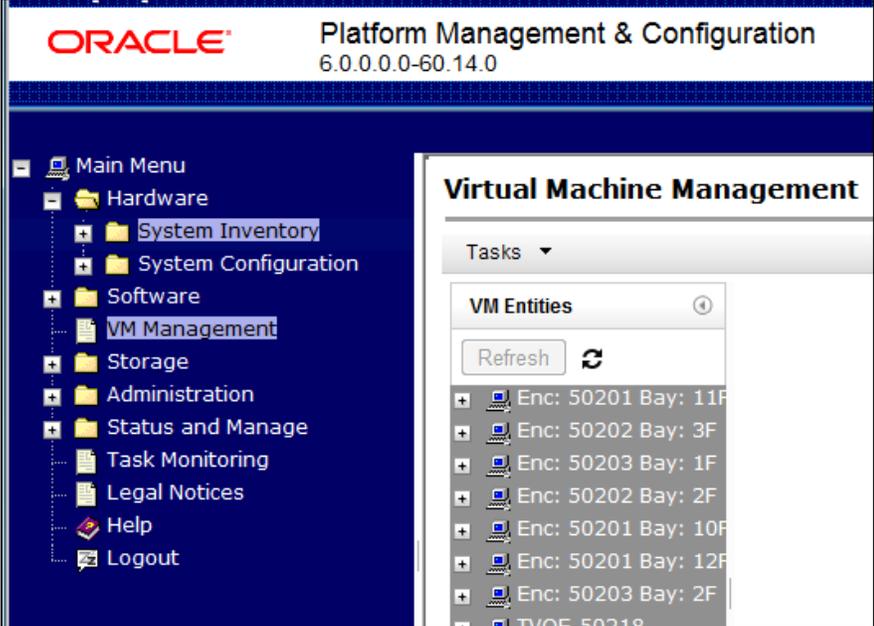
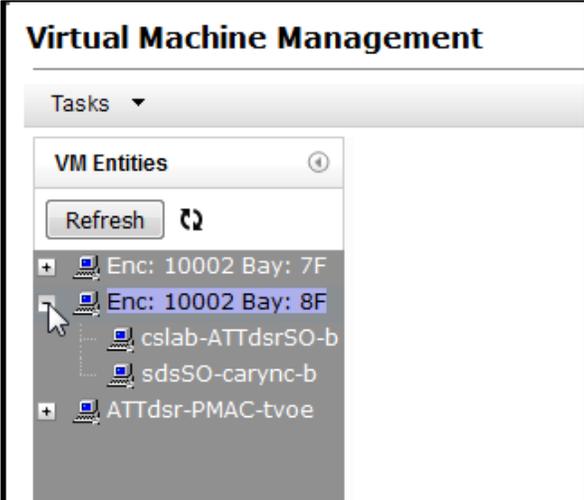
Step	Procedure	Result
<p>1.</p> <input type="checkbox"/>	<p>PMAC Server GUI: Launch an approved web browser and connect to the PMAC GUI address</p> <p>NOTE: <i>If presented with the "security certificate" warning screen shown to the right, choose the following option: "Continue to this website (not recommended)".</i></p>	
<p>2.</p> <input type="checkbox"/>	<p>PMAC Server GUI: The user should be presented the login screen shown on the right.</p> <p>Login to the GUI using the default user and password.</p>	

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Procedure 14: Recreate the SDS SOAM VM with the 1B Subscriber profile

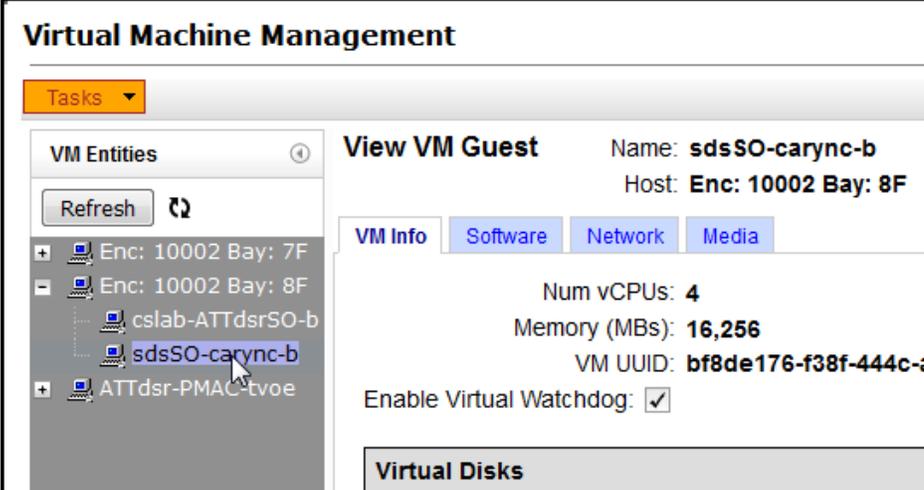
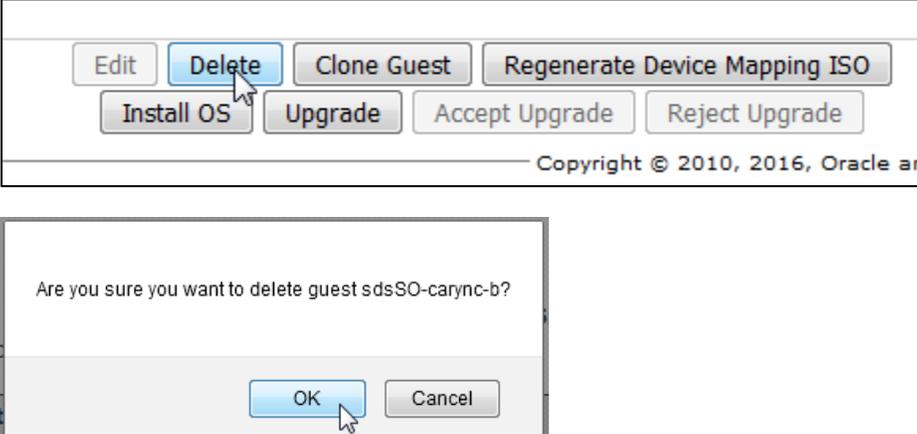
Step	Procedure	Result
<p>3.</p> <input type="checkbox"/>	<p>PMAC Server GUI: Select ...</p> <p>Main Menu → VM Management</p> <p>...as shown on the right.</p>	
<p>4.</p> <input type="checkbox"/>	<p>PMAC Server GUI:</p> <p>1) In the VM Entities box, click the plus sign (+) to expand the folder for the OAM blade containing the SOAM VM to be converted to the 1B Subscriber profile.</p> <p>...as shown on the right.</p>	

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Procedure 14: Recreate the SDS SOAM VM with the 1B Subscriber profile

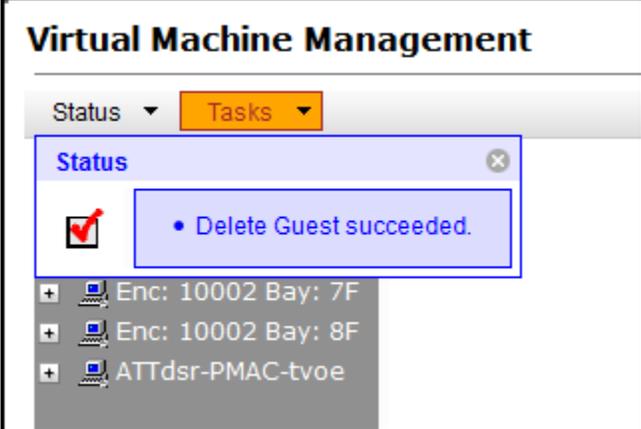
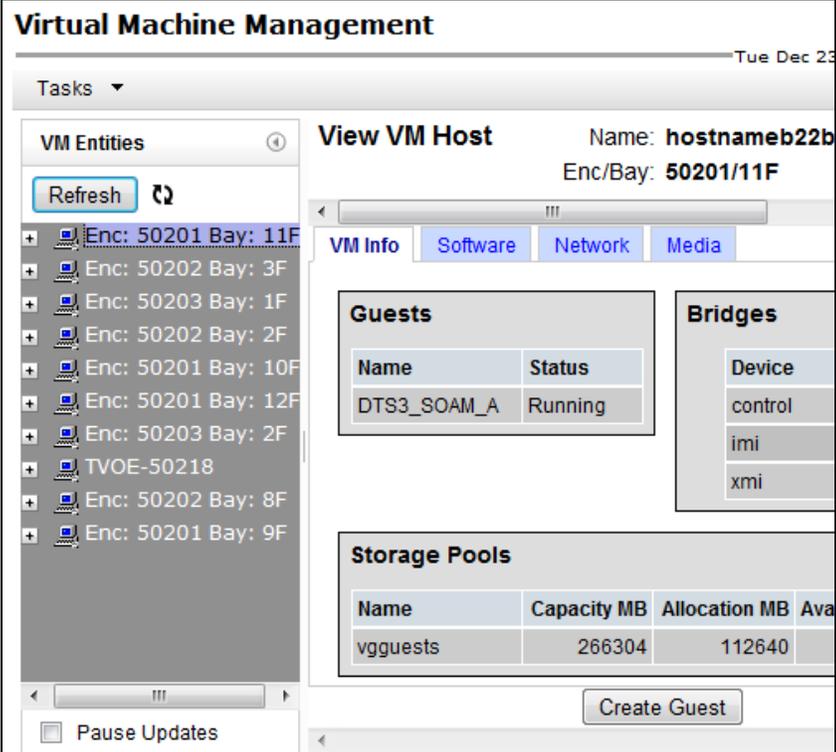
Step	Procedure	Result
<p>5.</p> <input type="checkbox"/>	<p>PMAC Server GUI: Click on the SOAM VM to be converted to the 1B Subscriber profile.</p>	 <p>Virtual Machine Management</p> <p>Tasks ▾</p> <p>VM Entities ⌵</p> <p>Refresh ↻</p> <ul style="list-style-type: none"> Enc: 10002 Bay: 7F Enc: 10002 Bay: 8F cslab-ATTdsrSO-b sdsSO-carync-b ATTdsr-PMAC-Evoe <p>View VM Guest Name: sdsSO-carync-b Host: Enc: 10002 Bay: 8F</p> <p>VM Info Software Network Media</p> <p>Num vCPUs: 4 Memory (MBs): 16,256 VM UUID: bf8de176-f38f-444c-3</p> <p>Enable Virtual Watchdog: <input checked="" type="checkbox"/></p> <p>Virtual Disks</p>
<div style="display: flex; align-items: center;">  <p style="color: red; font-weight: bold;"> THE USER SHOULD MAKE ALL POSSIBLE ATTEMPTS TO VERIFY THAT THE CORRECT SDS SOAM VM IS SELECTED AS THE NEXT STEP WILL DELETE THE VM FROM THE OAM BLADE. IT IS IMPERATIVE THAT ONLY THE SDS SOAM VM REMOVED FROM THE SERVER GROUP IN Procedure 13 BE SELECTED FOR DELETION AT THIS TIME. </p> </div>		
<p>6.</p> <input type="checkbox"/>	<p>PMAC Server GUI:</p> <p>1) Click the “Delete” dialogue button in the bottom of the right panel.</p> <p>2) Click “OK” on the pop-up confirmation box.</p>	 <p>Edit Delete Clone Guest Regenerate Device Mapping ISO</p> <p>Install OS Upgrade Accept Upgrade Reject Upgrade</p> <p>Copyright © 2010, 2016, Oracle and/or its affiliates. All rights reserved.</p> <p>Are you sure you want to delete guest sdsSO-carync-b?</p> <p>OK Cancel</p>

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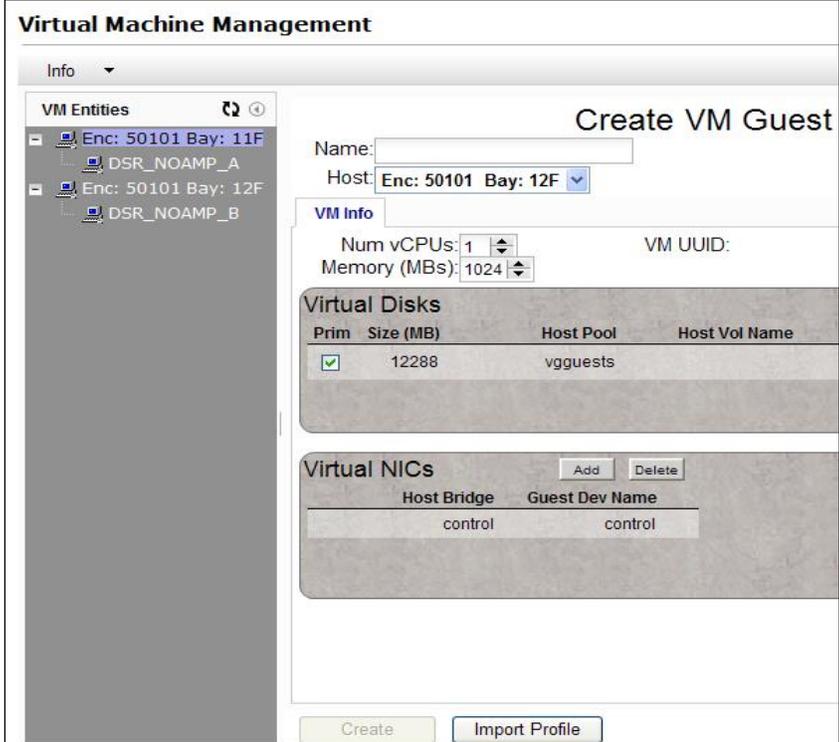
Step	Procedure	Result
<p>7.</p> <input type="checkbox"/>	<p>PMAC Server GUI:</p> <p>Wait several seconds (up to 1 minute) for the deletion of the VM to complete and the screen should refresh with a “Delete Guest succeeded.” Confirmation banner.</p>	 <p>The screenshot shows the 'Virtual Machine Management' interface. A 'Status' dialog box is open, displaying a red checkmark and the message 'Delete Guest succeeded.' Below the dialog, a list of VMs is visible, including 'Enc: 10002 Bay: 7F', 'Enc: 10002 Bay: 8F', and 'ATTdsr-PMAC-tvoe'.</p>
<p>8.</p> <input type="checkbox"/>	<p>PMAC Server GUI:</p> <p>1) In the VM Entities box, select the OAM blade containing the SOAM VM to be converted to the 1B Subscriber profile.</p> <p>...as shown on the right.</p> <p>2) Click the “Create Guest” dialogue button</p>	 <p>The screenshot shows the 'Virtual Machine Management' interface. The 'VM Entities' list on the left includes 'Enc: 50201 Bay: 11F', 'Enc: 50202 Bay: 3F', 'Enc: 50203 Bay: 1F', 'Enc: 50202 Bay: 2F', 'Enc: 50201 Bay: 10F', 'Enc: 50201 Bay: 12F', 'Enc: 50203 Bay: 2F', 'TVOE-50218', 'Enc: 50202 Bay: 8F', and 'Enc: 50201 Bay: 9F'. The 'View VM Host' section on the right shows 'Name: hostnameb22b' and 'Enc/Bay: 50201/11F'. Below this, there are sections for 'Guests' (listing 'DTS3_SOAM_A' with status 'Running'), 'Bridges' (listing 'control', 'imi', 'xmi'), and 'Storage Pools' (listing 'vggusers' with capacity 266304 MB and allocation 112640 MB). A 'Create Guest' button is visible at the bottom right.</p>

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Procedure 14: Recreate the SDS SOAM VM with the 1B Subscriber profile

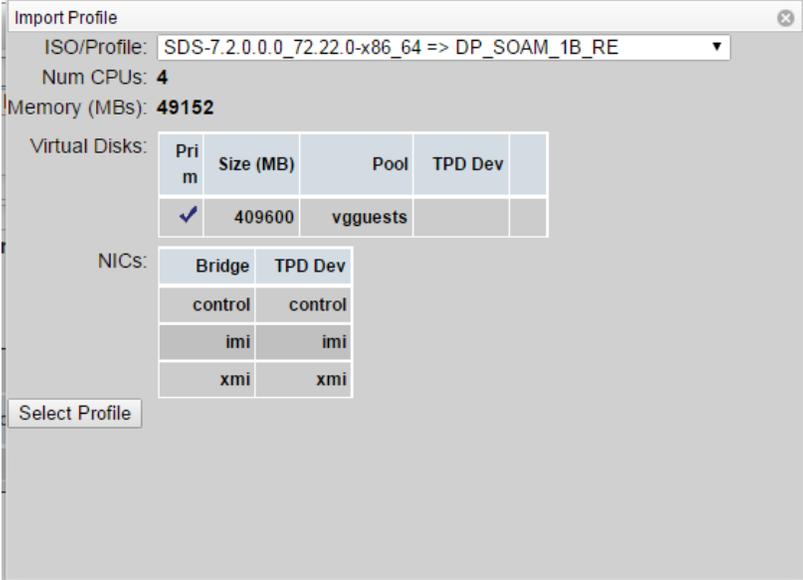
Step	Procedure	Result
<p>9.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>PMAC Server GUI: Click the “Import Profile” dialogue button ...as shown on the right.</p>	

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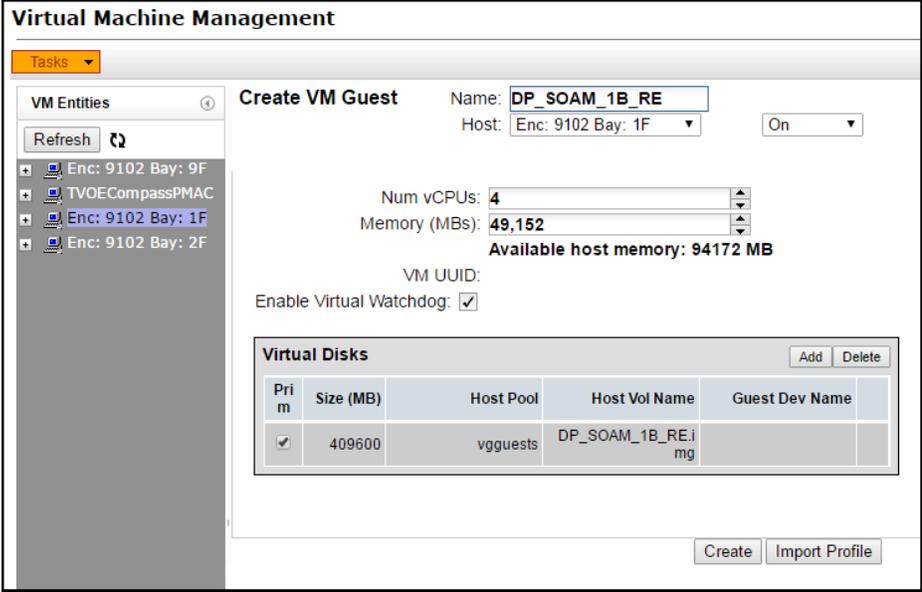
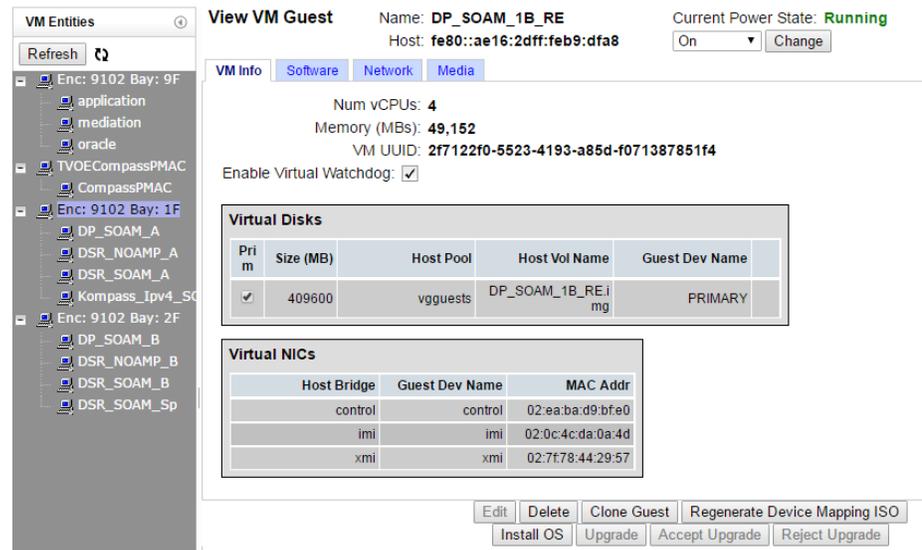
Step	Procedure	Result																				
<p>10.</p> <input type="checkbox"/>	<p>PMAC Server GUI:</p> <p>1) Select the desired ISO/Profile value ...as shown on the right.</p> <p>2) Click the “Select Profile” dialogue button</p>	<p>From the “ISO/Profile” drop-down box, select the entry that matches depending on the hardware that your SOAM VM TVOE server is running:</p> <table border="1"> <thead> <tr> <th>Release</th> <th>OAM Blade HW Type</th> <th>ISO File</th> <th>Profile</th> </tr> </thead> <tbody> <tr> <td>SDS 7.1</td> <td>HP BL460 G6</td> <td>7.1.1.0.0_XX.XX.XX-x86_64</td> <td>DP_SOAM_A DP_SOAM_B</td> </tr> <tr> <td>SDS 7.1</td> <td>HP BL460 Gen8/Gen9</td> <td>7.1.1.0.0_XX.XX.XX-x86_64</td> <td>DP_SOAM_A DP_SOAM_B</td> </tr> <tr> <td>SDS 7.2</td> <td>HP BL460 G6</td> <td>7.2.0.0.0_XX.XX.XX-x86_64</td> <td>Not Supported</td> </tr> <tr> <td>SDS 7.2</td> <td>HP BL460 Gen8/Gen9</td> <td>7.2.0.0.0_XX.XX.XX-x86_64</td> <td>DP_SOAM_1B_RE</td> </tr> </tbody> </table> 	Release	OAM Blade HW Type	ISO File	Profile	SDS 7.1	HP BL460 G6	7.1.1.0.0_XX.XX.XX-x86_64	DP_SOAM_A DP_SOAM_B	SDS 7.1	HP BL460 Gen8/Gen9	7.1.1.0.0_XX.XX.XX-x86_64	DP_SOAM_A DP_SOAM_B	SDS 7.2	HP BL460 G6	7.2.0.0.0_XX.XX.XX-x86_64	Not Supported	SDS 7.2	HP BL460 Gen8/Gen9	7.2.0.0.0_XX.XX.XX-x86_64	DP_SOAM_1B_RE
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SDS 7.1	HP BL460 Gen8/Gen9	7.1.1.0.0_XX.XX.XX-x86_64	DP_SOAM_A DP_SOAM_B																			
SDS 7.2	HP BL460 G6	7.2.0.0.0_XX.XX.XX-x86_64	Not Supported																			
SDS 7.2	HP BL460 Gen8/Gen9	7.2.0.0.0_XX.XX.XX-x86_64	DP_SOAM_1B_RE																			

SDS Software Upgrade Guide

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Procedure 14: Recreate the SDS SOAM VM with the 1B Subscriber profile

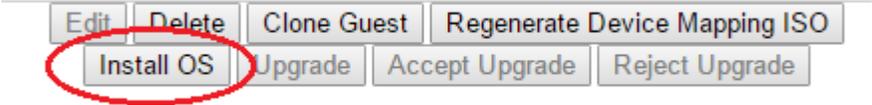
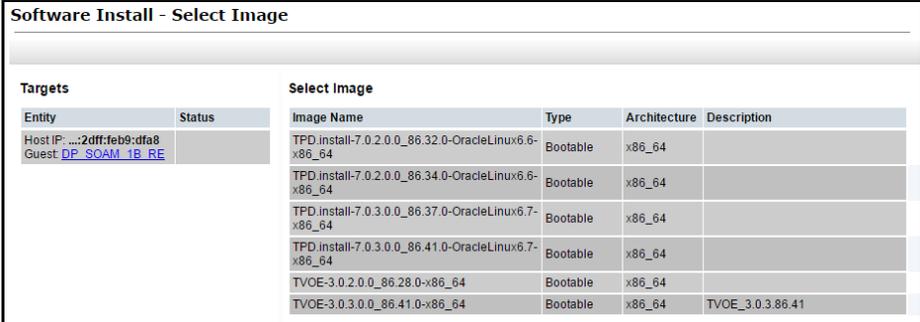
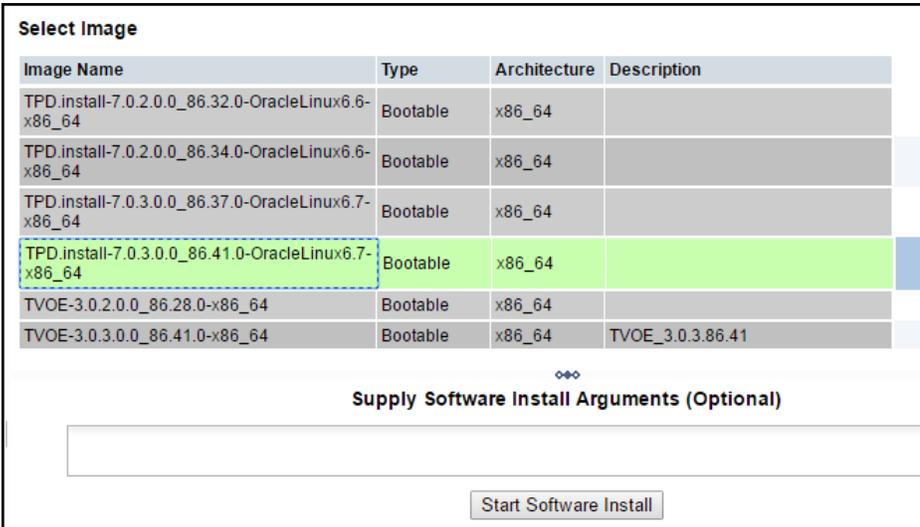
Step	Procedure	Result
<p>11.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>PMAC Server GUI:</p> <p>1) Overwrite the Name field with the Server host name (e.g. "so-mrsvnc-a")</p> <p>2) Click the "Create" dialogue button</p> <p>NOTE: If the VM Guest creation fails due to error "Host resources are oversubscribed," then contact My Oracle Support (MOS) for assistance</p>	
<p>12.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>PMAC Server GUI:</p> <p>Verify that task successfully completes.</p> <p>The user should see a screen similar to the one on the right with Progress value of 100%.</p>	

SDS Software Upgrade Guide

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Procedure 14: Recreate the SDS SOAM VM with the 1B Subscriber profile

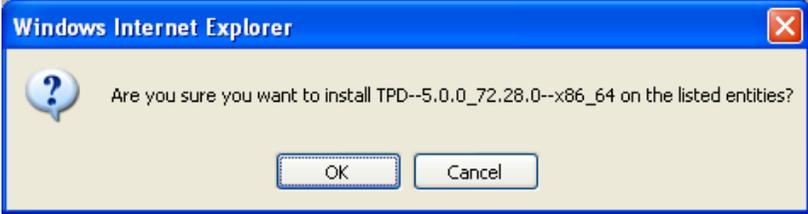
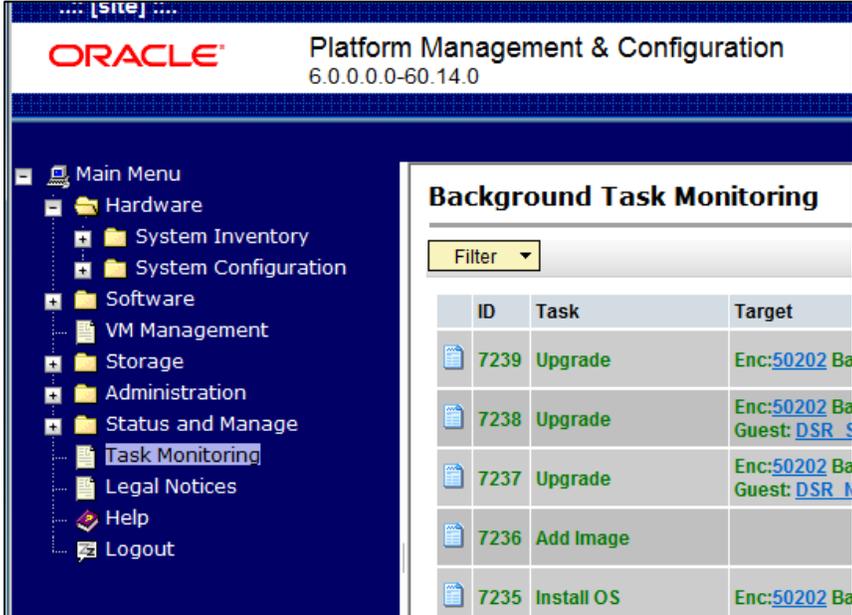
Step	Procedure	Result																																																
<p>13.</p> <input type="checkbox"/>	<p>PMAC Server GUI: Install the operating system by clicking the “Install OS” dialogue button</p>																																																	
<p>14.</p> <input type="checkbox"/>	<p>PMAC Server GUI: The user should see a screen similar to the one on the right.</p>	 <table border="1"> <thead> <tr> <th colspan="2">Targets</th> <th colspan="4">Select Image</th> </tr> <tr> <th>Entity</th> <th>Status</th> <th>Image Name</th> <th>Type</th> <th>Architecture</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Host IP: ...2dff:feb9:dfa8</td> <td></td> <td>TPD.install-7.0.2.0.0_86.32.0-OracleLinux6.6-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td></td> </tr> <tr> <td>Guest: DP_SOAM_1B_RE</td> <td></td> <td>TPD.install-7.0.2.0.0_86.34.0-OracleLinux6.6-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td></td> </tr> <tr> <td></td> <td></td> <td>TPD.install-7.0.3.0.0_86.37.0-OracleLinux6.7-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td></td> </tr> <tr> <td></td> <td></td> <td>TPD.install-7.0.3.0.0_86.41.0-OracleLinux6.7-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td></td> </tr> <tr> <td></td> <td></td> <td>TVOE-3.0.2.0.0_86.28.0-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td></td> </tr> <tr> <td></td> <td></td> <td>TVOE-3.0.3.0.0_86.41.0-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td>TVOE_3.0.3.86.41</td> </tr> </tbody> </table>	Targets		Select Image				Entity	Status	Image Name	Type	Architecture	Description	Host IP: ...2dff:feb9:dfa8		TPD.install-7.0.2.0.0_86.32.0-OracleLinux6.6-x86_64	Bootable	x86_64		Guest: DP_SOAM_1B_RE		TPD.install-7.0.2.0.0_86.34.0-OracleLinux6.6-x86_64	Bootable	x86_64				TPD.install-7.0.3.0.0_86.37.0-OracleLinux6.7-x86_64	Bootable	x86_64				TPD.install-7.0.3.0.0_86.41.0-OracleLinux6.7-x86_64	Bootable	x86_64				TVOE-3.0.2.0.0_86.28.0-x86_64	Bootable	x86_64				TVOE-3.0.3.0.0_86.41.0-x86_64	Bootable	x86_64	TVOE_3.0.3.86.41
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<p>15.</p> <input type="checkbox"/>	<p>PMAC Server GUI: 1) Select the desired TPD Image 2) Click the “Start Software Install” dialogue button.</p>	 <table border="1"> <thead> <tr> <th>Image Name</th> <th>Type</th> <th>Architecture</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>TPD.install-7.0.2.0.0_86.32.0-OracleLinux6.6-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td></td> </tr> <tr> <td>TPD.install-7.0.2.0.0_86.34.0-OracleLinux6.6-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td></td> </tr> <tr> <td>TPD.install-7.0.3.0.0_86.37.0-OracleLinux6.7-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td></td> </tr> <tr style="background-color: #90EE90;"> <td>TPD.install-7.0.3.0.0_86.41.0-OracleLinux6.7-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td></td> </tr> <tr> <td>TVOE-3.0.2.0.0_86.28.0-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td></td> </tr> <tr> <td>TVOE-3.0.3.0.0_86.41.0-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td>TVOE_3.0.3.86.41</td> </tr> </tbody> </table> <p style="text-align: center;">Supply Software Install Arguments (Optional)</p> <p style="text-align: center;"><input type="button" value="Start Software Install"/></p>	Image Name	Type	Architecture	Description	TPD.install-7.0.2.0.0_86.32.0-OracleLinux6.6-x86_64	Bootable	x86_64		TPD.install-7.0.2.0.0_86.34.0-OracleLinux6.6-x86_64	Bootable	x86_64		TPD.install-7.0.3.0.0_86.37.0-OracleLinux6.7-x86_64	Bootable	x86_64		TPD.install-7.0.3.0.0_86.41.0-OracleLinux6.7-x86_64	Bootable	x86_64		TVOE-3.0.2.0.0_86.28.0-x86_64	Bootable	x86_64		TVOE-3.0.3.0.0_86.41.0-x86_64	Bootable	x86_64	TVOE_3.0.3.86.41																				
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SDS Software Upgrade Guide

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Procedure 14: Recreate the SDS SOAM VM with the 1B Subscriber profile

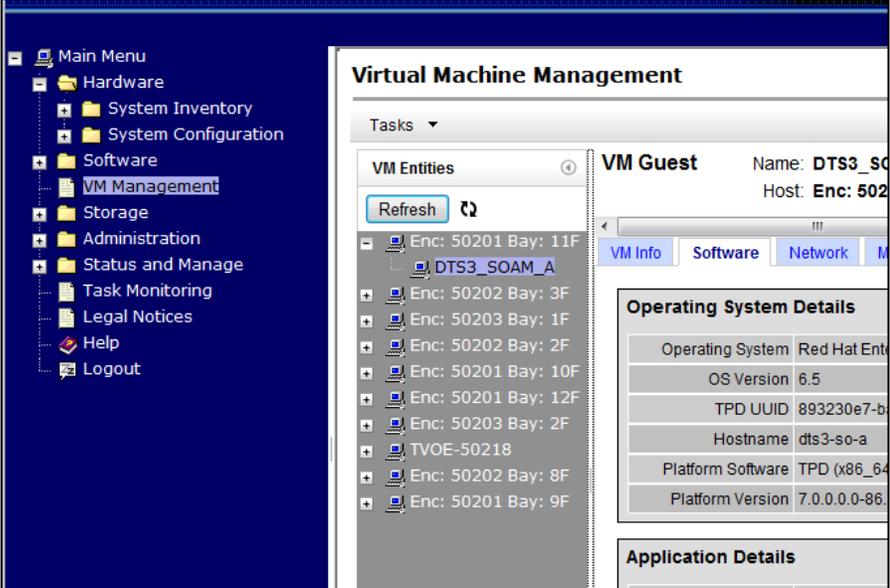
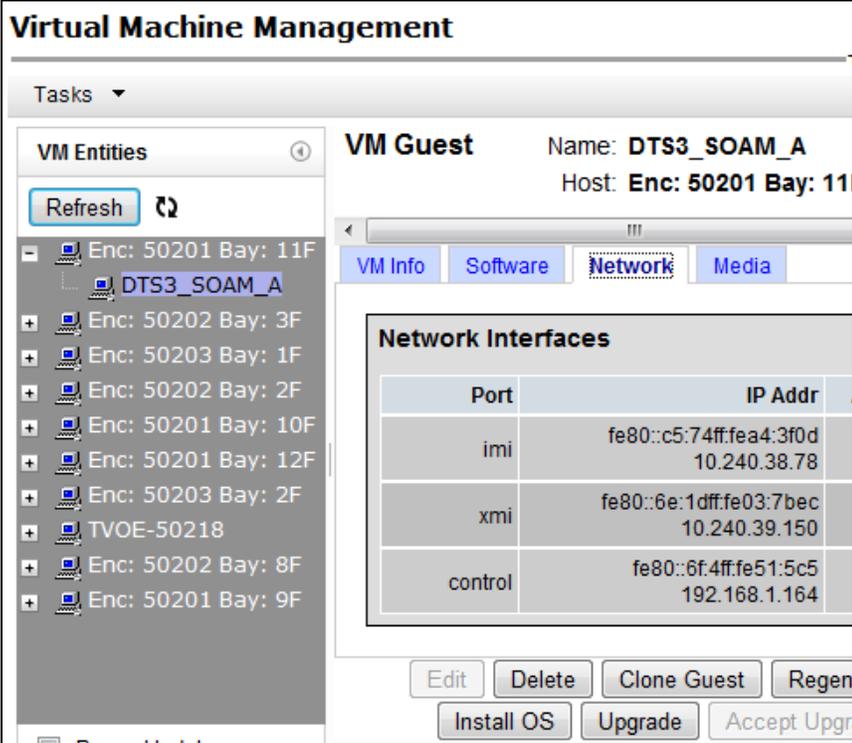
Step	Procedure	Result																		
<p>16.</p> <input type="checkbox"/>	<p>PMAC Server GUI:</p> <p>The user should be presented with an “Are you sure you want to install” message box as shown on the right. Click the “OK” dialogue button.</p>																			
<p>17.</p> <input type="checkbox"/>	<p>PMAC Server GUI:</p> <p>An installation task will be started. This task takes ~11 minutes. The user can monitor this task by doing the following:</p> <p>Select...</p> <p>Main Menu → Task Monitoring</p> <p>Wait until you see the Progress value equal 100%.</p>	 <table border="1"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> </tr> </thead> <tbody> <tr> <td>7239</td> <td>Upgrade</td> <td>Enc:50202 Ba</td> </tr> <tr> <td>7238</td> <td>Upgrade</td> <td>Enc:50202 Ba Guest: DSR S</td> </tr> <tr> <td>7237</td> <td>Upgrade</td> <td>Enc:50202 Ba Guest: DSR I</td> </tr> <tr> <td>7236</td> <td>Add Image</td> <td></td> </tr> <tr> <td>7235</td> <td>Install OS</td> <td>Enc:50202 Ba</td> </tr> </tbody> </table>	ID	Task	Target	7239	Upgrade	Enc:50202 Ba	7238	Upgrade	Enc:50202 Ba Guest: DSR S	7237	Upgrade	Enc:50202 Ba Guest: DSR I	7236	Add Image		7235	Install OS	Enc:50202 Ba
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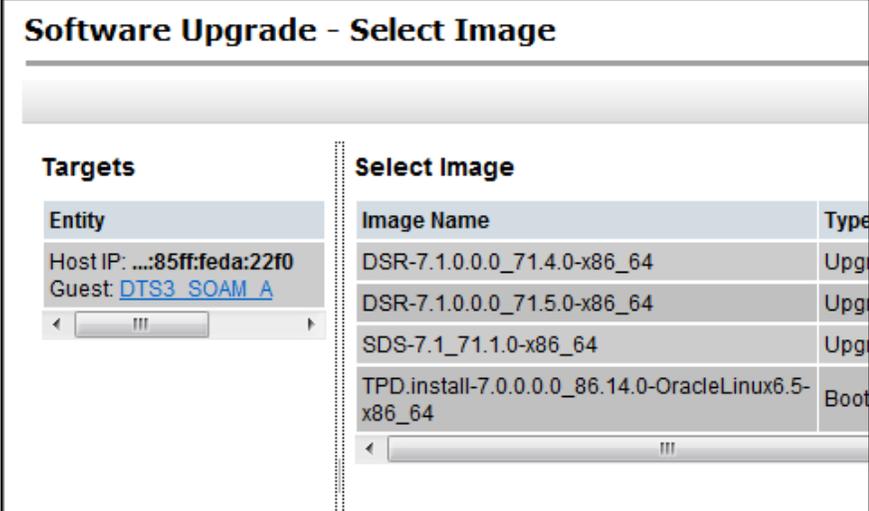
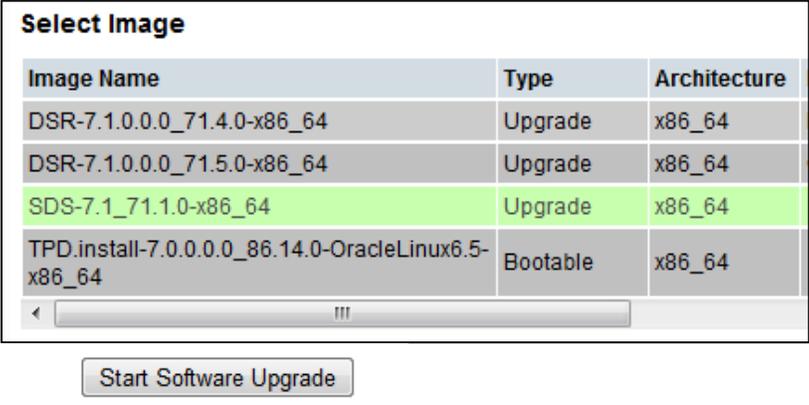
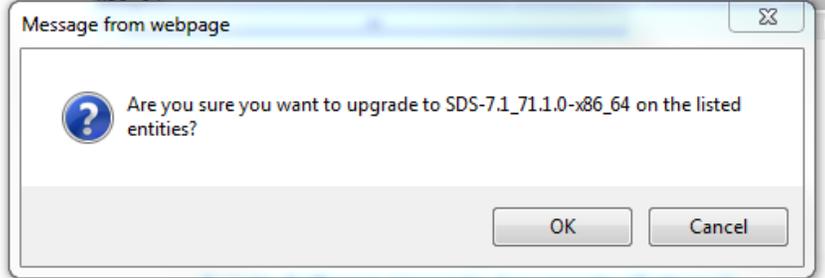
Step	Procedure	Result								
<p>18.</p> <input type="checkbox"/>	<p>PMAC Server GUI:</p> <p>1) Select...</p> <p>Main Menu → VM Management</p> <p>2) Select the “Software” tab</p> <p>3) Verify the operating system has been installed.</p> <p>4) Verify the “Application Details” section is blank.</p>	 <p>The screenshot shows the PMAC Server GUI. On the left is a 'Main Menu' tree with categories like Hardware, System Inventory, System Configuration, Software, VM Management, Storage, Administration, Status and Manage, Task Monitoring, Legal Notices, Help, and Logout. The 'VM Management' category is selected. On the right, the 'Virtual Machine Management' window is open, showing a list of VM entities. The selected VM is 'DTS3_SOAM_A' on Enc: 50201 Bay: 11F. The 'VM Guest' details are visible, including Name: DTS3_SOAM_A and Host: Enc: 50201 Bay: 11F. The 'Operating System Details' section shows Red Hat Enterprise Linux 6.5. The 'Application Details' section is currently blank.</p>								
<p>19.</p> <input type="checkbox"/>	<p>PMAC Server GUI:</p> <p>1) Select the “Network” tab</p> <p>2) Record the control IP address for this SOAM VM; it will be referenced later.</p> <p>3) Select the “Upgrade” dialogue button</p>	 <p>The screenshot shows the 'Virtual Machine Management' window with the 'Network' tab selected. The 'VM Guest' details are Name: DTS3_SOAM_A and Host: Enc: 50201 Bay: 11F. The 'Network Interfaces' table is displayed:</p> <table border="1"> <thead> <tr> <th>Port</th> <th>IP Addr</th> </tr> </thead> <tbody> <tr> <td>imi</td> <td>fe80::c5:74ff:fea4:3f0d 10.240.38.78</td> </tr> <tr> <td>xmi</td> <td>fe80::6e:1dff:fe03:7bec 10.240.39.150</td> </tr> <tr> <td>control</td> <td>fe80::6f:4ff:fe51:5c5 192.168.1.164</td> </tr> </tbody> </table> <p>At the bottom of the window, there are buttons for 'Edit', 'Delete', 'Clone Guest', 'Regen', 'Install OS', 'Upgrade', and 'Accept Upgr'.</p>	Port	IP Addr	imi	fe80::c5:74ff:fea4:3f0d 10.240.38.78	xmi	fe80::6e:1dff:fe03:7bec 10.240.39.150	control	fe80::6f:4ff:fe51:5c5 192.168.1.164
Port	IP Addr									
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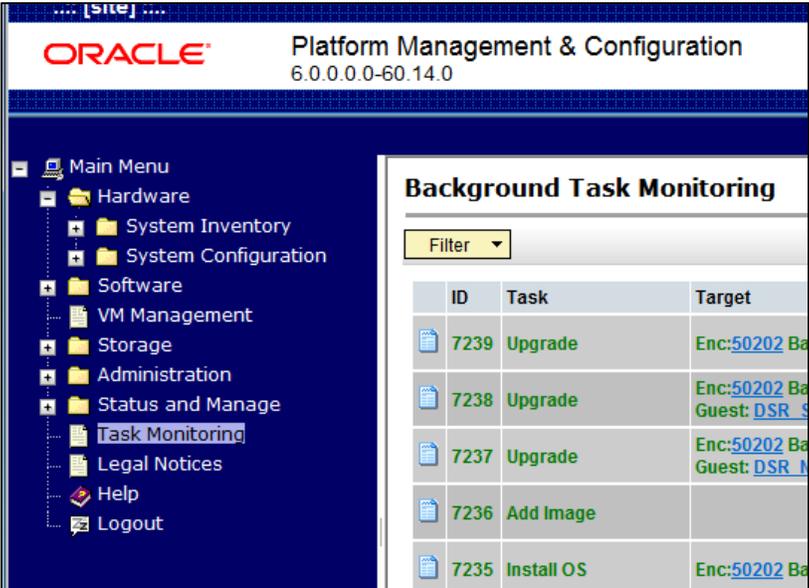
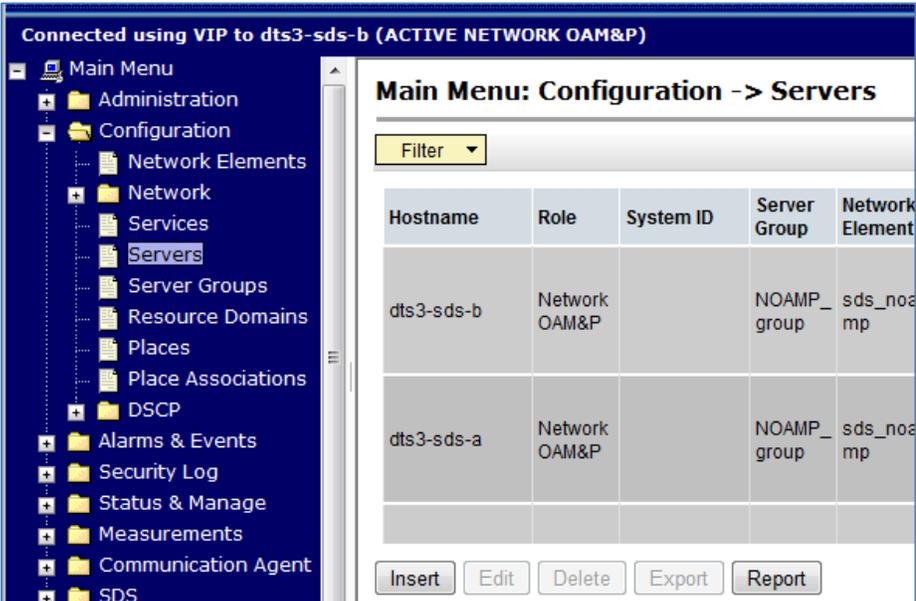
Step	Procedure	Result
<p>20.</p> <input type="checkbox"/>	<p>PMAC Server GUI:</p> <p>The user should be presented the Select Image screen as shown on the right</p>	
<p>21.</p> <input type="checkbox"/>	<p>PMAC Server GUI:</p> <p>1) Select the correct SDS version from the "Image Name" list. The line entry should now be highlighted in GREEN.</p> <p>2) Select the "Start Upgrade" dialogue button</p>	
<p>22.</p> <input type="checkbox"/>	<p>PMAC Server GUI:</p> <p>The user should be presented with an "Are you sure you want to upgrade" message box</p> <p>....as shown on the right.</p> <p>Click the "OK" dialogue button.</p>	

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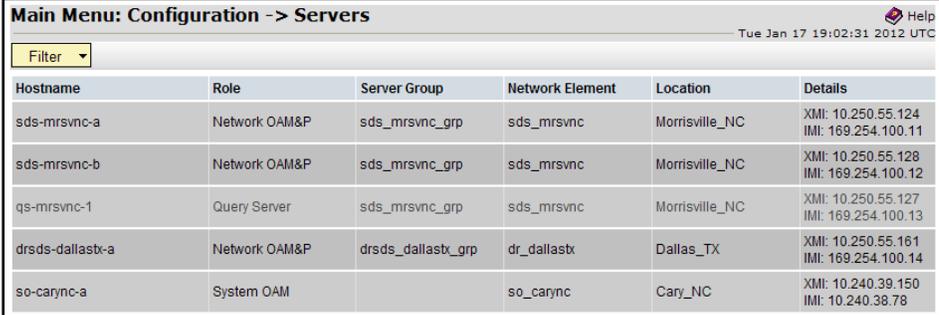
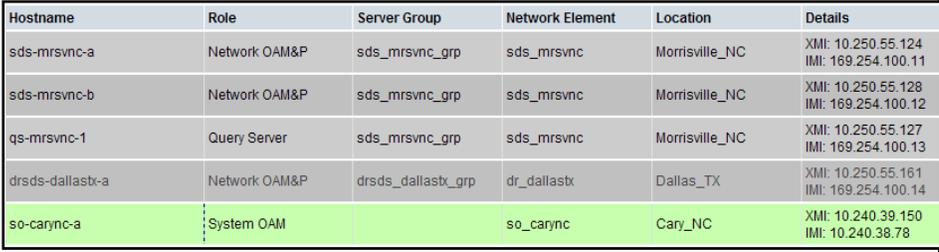
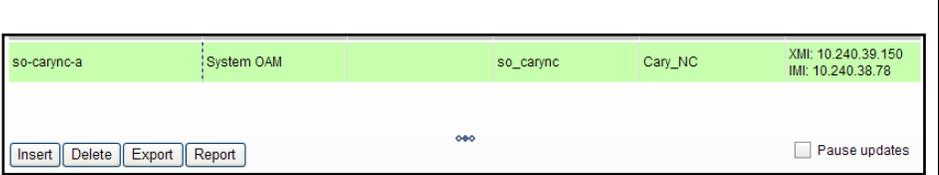
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<p>24.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu → Configuration → Servers</p> <p>...as shown on the right.</p>	 <table border="1"> <caption>Main Menu: Configuration -> Servers</caption> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>System ID</th> <th>Server Group</th> <th>Network Element</th> </tr> </thead> <tbody> <tr> <td>dts3-sds-b</td> <td>Network OAM&P</td> <td></td> <td>NOAMP_group</td> <td>sds_noamp</td> </tr> <tr> <td>dts3-sds-a</td> <td>Network OAM&P</td> <td></td> <td>NOAMP_group</td> <td>sds_noamp</td> </tr> </tbody> </table>	Hostname	Role	System ID	Server Group	Network Element	dts3-sds-b	Network OAM&P		NOAMP_group	sds_noamp	dts3-sds-a	Network OAM&P		NOAMP_group	sds_noamp			
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Procedure 14: Recreate the SDS SOAM VM with the 1B Subscriber profile

Step	Procedure	Result																																				
25. <input type="checkbox"/>	Primary SDS VIP: On the “ Configuration → Servers ” screen, find the recreated SOAM server in the list.	 <p>Main Menu: Configuration -> Servers Help Tue Jan 17 19:02:31 2012 UTC</p> <p>Filter ▾</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>Server Group</th> <th>Network Element</th> <th>Location</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>sds-mrsvnc-a</td> <td>Network OAM&P</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.124 IMI: 169.254.100.11</td> </tr> <tr> <td>sds-mrsvnc-b</td> <td>Network OAM&P</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.128 IMI: 169.254.100.12</td> </tr> <tr> <td>qs-mrsvnc-1</td> <td>Query Server</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.127 IMI: 169.254.100.13</td> </tr> <tr> <td>drdsds-dallastx-a</td> <td>Network OAM&P</td> <td>drdsds_dallastx_grp</td> <td>dr_dallastx</td> <td>Dallas_TX</td> <td>XMI: 10.250.55.161 IMI: 169.254.100.14</td> </tr> <tr style="background-color: #e0ffe0;"> <td>so-carync-a</td> <td>System OAM</td> <td></td> <td>so_carync</td> <td>Cary_NC</td> <td>XMI: 10.240.39.150 IMI: 10.240.38.78</td> </tr> </tbody> </table>	Hostname	Role	Server Group	Network Element	Location	Details	sds-mrsvnc-a	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.124 IMI: 169.254.100.11	sds-mrsvnc-b	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.128 IMI: 169.254.100.12	qs-mrsvnc-1	Query Server	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.127 IMI: 169.254.100.13	drdsds-dallastx-a	Network OAM&P	drdsds_dallastx_grp	dr_dallastx	Dallas_TX	XMI: 10.250.55.161 IMI: 169.254.100.14	so-carync-a	System OAM		so_carync	Cary_NC	XMI: 10.240.39.150 IMI: 10.240.38.78
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26. <input type="checkbox"/>	Primary SDS VIP: Use the cursor to select the recreated SOAM server . The row containing the server should now be highlighted in GREEN .	 <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>Server Group</th> <th>Network Element</th> <th>Location</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>sds-mrsvnc-a</td> <td>Network OAM&P</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.124 IMI: 169.254.100.11</td> </tr> <tr> <td>sds-mrsvnc-b</td> <td>Network OAM&P</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.128 IMI: 169.254.100.12</td> </tr> <tr> <td>qs-mrsvnc-1</td> <td>Query Server</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.127 IMI: 169.254.100.13</td> </tr> <tr> <td>drdsds-dallastx-a</td> <td>Network OAM&P</td> <td>drdsds_dallastx_grp</td> <td>dr_dallastx</td> <td>Dallas_TX</td> <td>XMI: 10.250.55.161 IMI: 169.254.100.14</td> </tr> <tr style="background-color: #e0ffe0;"> <td>so-carync-a</td> <td>System OAM</td> <td></td> <td>so_carync</td> <td>Cary_NC</td> <td>XMI: 10.240.39.150 IMI: 10.240.38.78</td> </tr> </tbody> </table>	Hostname	Role	Server Group	Network Element	Location	Details	sds-mrsvnc-a	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.124 IMI: 169.254.100.11	sds-mrsvnc-b	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.128 IMI: 169.254.100.12	qs-mrsvnc-1	Query Server	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.127 IMI: 169.254.100.13	drdsds-dallastx-a	Network OAM&P	drdsds_dallastx_grp	dr_dallastx	Dallas_TX	XMI: 10.250.55.161 IMI: 169.254.100.14	so-carync-a	System OAM		so_carync	Cary_NC	XMI: 10.240.39.150 IMI: 10.240.38.78
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27. <input type="checkbox"/>	Primary SDS VIP: Select the “ Export ” dialogue button from the bottom left corner of right panel.	 <p>so-carync-a System OAM so_carync Cary_NC XMI: 10.240.39.150 IMI: 10.240.38.78</p> <p>Insert Delete Export Report ☰ Pause updates</p>																																				
28. <input type="checkbox"/>	SDS VIP CLI: Access the Active NOAM server CLI .	<ul style="list-style-type: none"> Connect to the Active SDS NOAM CLI via SSH terminal session to the NOAM VIP address. 																																				
29. <input type="checkbox"/>	SDS VIP CLI: Log into the server as the “ admusr ” user.	<pre>login: admusr Password: <admusr_password></pre>																																				
30. <input type="checkbox"/>	SDS VIP CLI: Change directory into the file management location.	<pre>\$ cd /var/TKLC/db/filemgmt \$</pre>																																				

SDS Software Upgrade Guide

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Procedure 14: Recreate the SDS SOAM VM with the 1B Subscriber profile

Step	Procedure	Result
31. <input type="checkbox"/>	SDS VIP CLI: Get a directory listing and find the configuration file containing the SOAM server name as shown to the right.	<pre>\$ ls -ltr TKLCConfigData*.sh *** TRUNCATED OUTPUT *** -rw-rw-rw- 1 root root 2208 Dec 19 16:50 TKLCConfigData.so- carync-b.sh \$</pre>
32. <input type="checkbox"/>	SDS VIP CLI: Copy the configuration files found in the previous step to the PMAC .	<pre>\$ scp -p <configuration_file> admusr@<PMAC_Mgmt_IP>:/tmp/ admusr@xxx.xxx.xxx.xxx's password: <admusr_password> TKLCConfigData.so-carync-b.sh 100% 1741 1.7KB/s 00:00 \$</pre>
33. <input type="checkbox"/>	SDS VIP CLI: Logout of the Active NOAM CLI .	<pre>\$ exit</pre>
34. <input type="checkbox"/>	PMAC Server CLI: Use SSH to login to the PMAC Guest VM server as the “ admusr ” user.	<pre>login: admusr Password: <admusr_password></pre>
35. <input type="checkbox"/>	PMAC Guest VM: Copy the server configuration file to the Control IP for the SDS SOAM VM . NOTE: <i>The Control IP for each the SOAM VM was recorded in Step 19 of this procedure.</i>	<pre>\$ scp -p /tmp/<configuration_file> admusr@<SDS_SOAM_VM_Control_IP>:/tmp/ admusr@xxx.xxx.xxx.xxx's password: TKLCConfigData.so-carync-a.sh 100% 1741 1.7KB/s 00:00</pre>
36. <input type="checkbox"/>	PMAC Guest VM: Using SSH , Connect to the SOAM server CLI from the PMAC Server Console .	<pre>\$ ssh <SDS_SOAM_VM_Control_IP> admusr@xxx.xxx.xxx.xxx's password: <admusr_password></pre>

SDS Software Upgrade Guide

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Procedure 14: Recreate the SDS SOAM VM with the 1B Subscriber profile

Step	Procedure	Result
37. <input type="checkbox"/>	<p>SOAM Guest VM: Copy the server configuration file to the “/var/tmp” directory on the server, making sure to rename the file by omitting the server hostname from the file name.</p>	<p>Example: TKLCConfigData.<server_hostname>.sh → will translate to →TKLCConfigData.sh</p> <pre>\$ cp -p /tmp/TKLCConfigData.so-carync-b.sh /var/tmp/TKLCConfigData.sh</pre> <p>NOTE: The server will poll the /var/tmp directory for the presence of the configuration file and automatically execute it when found.</p>
38. <input type="checkbox"/>	<p>SOAM Guest VM: After the script completes, a broadcast message will be sent to the terminal.</p> <p>NOTE: The user should be aware that the time to complete this step varies by server and may take from 3-5 minutes to complete.</p>	<p>*** NO OUTPUT FOR ≈ 3-5 MINUTES ***</p> <pre>Broadcast message from root (Mon Dec 14 15:47:33 2009): Server configuration completed successfully! See /var/TKLC/appw/logs/Process/install.log for details. Please remove the USB flash drive if connected and reboot the server. <ENTER></pre>
39. <input type="checkbox"/>	<p>SOAM Guest VM: Accept upgrade to the Application Software.</p>	<pre>\$ sudo /var/TKLC/backout/accept Called with options: --accept Loading Upgrade::Backout::RPM Accepting Upgrade Setting POST_UPGRADE_ACTION to ACCEPT in upgrade info. Cleaning backout directory. Clearing Upgrade Accept/Reject alarm. Cleaning message from MOTD. Cleaning up RPM config backup files... Checking / Checking /boot Checking /tmp Checking /usr Checking /var Checking /var/TKLC Checking /tmp/appworks_temp Checking /var/TKLC/appw/logs/Process Checking /var/TKLC/appw/logs/Security Checking /var/TKLC/db/filemgmt Checking /var/TKLC/rundb Starting cleanup of RCS repository. INFO: Removing '/var/lib/prelink/force' from RCS repository INFO: Removing '/etc/my.cnf' from RCS repository</pre>

SDS Software Upgrade Guide

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Procedure 14: Recreate the SDS SOAM VM with the 1B Subscriber profile

Step	Procedure	Result
40. <input type="checkbox"/>	SOAM Guest VM: Verify that the desired Time Zone is currently in use.	<code>\$ date</code> Mon Aug 10 19:34:51 UTC 2015
41. <input type="checkbox"/>	SOAM Guest VM: If the desired Time Zone was NOT presented in the previous step... Configure the Time Zone . Otherwise, SKIP to the next step.	Example: <code>\$ sudo set_ini_tz.pl <time_zone></code> NOTE: The following command example sets the time to the "UTC" (aka GMT) time zone which is recommended for all sites. The user may replace, as appropriate, with the customer requested time zone for this site installation. See Appendix H from Reference [1] for a list of valid time zones. <code>\$ sudo set_ini_tz.pl "Etc/UTC"</code>
42. <input type="checkbox"/>	SOAM Guest VM: Initiate a reboot of the SOAM server .	<code>\$ sudo init 6</code>
43. <input type="checkbox"/>	SOAM Guest VM: Output similar to that shown on the right may be observed as the server initiates a reboot.	Connection to xxx.xxx.xxx.xxx closed by remote host. Connection to xxx.xxx.xxx.xxx closed.
44. <input type="checkbox"/>	PMAC Guest VM: After the SOAM server has completed reboot, re-connect to the SOAM server console from the PMAC Server Console	<code>\$ ssh <SDS_SOAM_VM_Control_IP></code> admusr@xxx.xxx.xxx.xxx's password: <code><admusr_password></code>

SDS Software Upgrade Guide

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Procedure 14: Recreate the SDS SOAM VM with the 1B Subscriber profile

Step	Procedure	Result
45. <input type="checkbox"/>	SOAM Guest VM: 1) Verify that the IMI IP address has been applied as specified. 2) Verify that the XMI IP address has been applied as specified.	<pre>\$ ifconfig grep in control Link encap:Ethernet HWaddr 52:54:00:23:DC:32 inet addr:192.168.1.199 Bcast:192.168.1.255 Mask:255.255.255.0 imi Link encap:Ethernet HWaddr 52:54:00:33:DC:DC inet addr:10.240.38.78 Bcast:10.240.38.127 Mask:255.255.255.128 lo Link encap:Local Loopback inet addr:127.0.0.1 Mask:255.0.0.0 xmi Link encap:Ethernet HWaddr 52:54:00:63:63:BD inet addr:10.240.39.150 Bcast:10.240.39.255 Mask:255.255.255.128</pre>
46. <input type="checkbox"/>	SOAM Guest VM: Execute a “syscheck” to verify the current health of the server.	<pre>\$ sudo syscheck Running modules in class hardware... OK Running modules in class disk... OK Running modules in class net... OK Running modules in class system... OK Running modules in class proc... OK LOG LOCATION: /var/TKLC/log/syscheck/fail log</pre>
47. <input type="checkbox"/>	SOAM Guest VM: “ping” the IMI IP address of the mate SOAM VM Guest .	<pre>\$ ping -c 5 10.240.38.78 PING 10.240.38.78 (10.240.38.78) 56(84) bytes of data. 64 bytes from 10.240.38.78: icmp_seq=1 ttl=64 time=0.031 ms 64 bytes from 10.240.38.78: icmp_seq=2 ttl=64 time=0.017 ms 64 bytes from 10.240.38.78: icmp_seq=3 ttl=64 time=0.031 ms 64 bytes from 10.240.38.78: icmp_seq=4 ttl=64 time=0.028 ms 64 bytes from 10.240.38.78: icmp_seq=5 ttl=64 time=0.030 ms 64 bytes from 10.240.38.78: icmp_seq=6 ttl=64 time=0.028 ms --- 10.240.38.78 ping statistics --- 6 packets transmitted, 6 received, 0% packet loss, time 5000ms rtt min/avg/max/mdev = 0.017/0.027/0.031/0.007 ms</pre>
48. <input type="checkbox"/>	SOAM Guest VM: “ping” the XMI IP address of the mate SOAM VM Guest .	<pre>\$ ping -c 5 10.240.39.150 PING 10.240.39.150 (10.240.39.150) 56(84) bytes of data. 64 bytes from 10.240.39.150: icmp_seq=1 ttl=64 time=0.024 ms 64 bytes from 10.240.39.150: icmp_seq=2 ttl=64 time=0.033 ms 64 bytes from 10.240.39.150: icmp_seq=3 ttl=64 time=0.032 ms 64 bytes from 10.240.39.150: icmp_seq=4 ttl=64 time=0.026 ms 64 bytes from 10.240.39.150: icmp_seq=5 ttl=64 time=0.027 ms 64 bytes from 10.240.39.150: icmp_seq=6 ttl=64 time=0.026 ms --- 10.240.39.150 ping statistics --- 6 packets transmitted, 6 received, 0% packet loss, time 5004ms rtt min/avg/max/mdev = 0.024/0.028/0.033/0.003 ms</pre>

SDS Software Upgrade Guide

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Procedure 14: Recreate the SDS SOAM VM with the 1B Subscriber profile

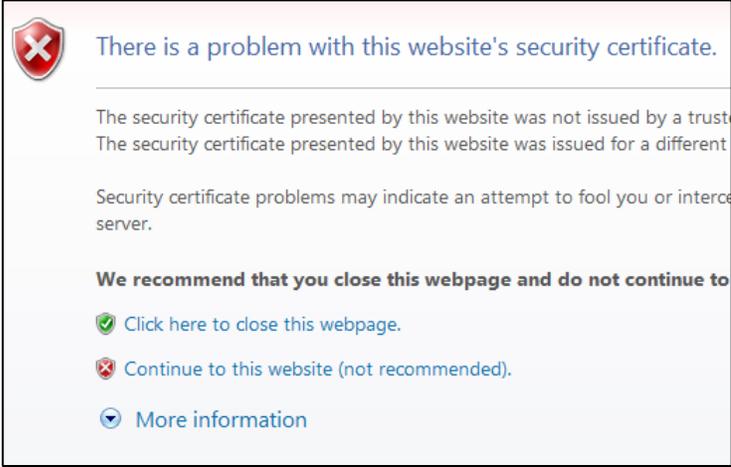
Step	Procedure	Result
49. <input type="checkbox"/>	SOAM Guest VM: From the SOAM Guest, “ping” the local XMI Gateway address associated with the SOAM NE.	<pre>\$ ping -c 5 10.240.39.1 PING 10.240.39.1 (10.240.39.1) 56(84) bytes of data. 64 bytes from 10.240.39.1: icmp_seq=1 ttl=64 time=0.024 ms 64 bytes from 10.240.39.1: icmp_seq=2 ttl=64 time=0.033 ms 64 bytes from 10.240.39.1: icmp_seq=3 ttl=64 time=0.032 ms 64 bytes from 10.240.39.1: icmp_seq=4 ttl=64 time=0.026 ms 64 bytes from 10.240.39.1: icmp_seq=5 ttl=64 time=0.027 ms 64 bytes from 10.240.39.1: icmp_seq=6 ttl=64 time=0.026 ms --- 10.240.39.1 ping statistics --- 6 packets transmitted, 6 received, 0% packet loss, time 5004ms rtt min/avg/max/mdev = 0.024/0.028/0.033/0.003 ms</pre>
50. <input type="checkbox"/>	SOAM Guest VM: Use the “ntpq” command to verify that the server has connectivity to at least one of the assigned NTP server(s). NOTE: NTP connectivity is denoted by the presence of an asterisk (*) to the left of one of the “remote” IP addresses.	<pre>\$ ntpq -np remote refid st t when poll reach delay offset jitter ===== +10.250.32.10 192.5.41.209 2 u 139 1024 377 2.008 1.006 1.049 *10.250.32.51 192.5.41.209 2 u 979 1024 377 0.507 1.664 0.702</pre>
 <p>IF CONNECTIVITY TO THE NTP SERVER(S) CANNOT BE ESTABLISHED, STOP AND PERIODICALLY REPEAT THE PREVIOUS STEP UNTIL NTP CONNECTIVITY IS ESTABLISHED BEFORE CONTINUING TO THE NEXT STEP.</p>		
51. <input type="checkbox"/>	SOAM Guest VM: Exit from the SOAM command line to return the PMAC server console prompt.	<pre>\$ exit</pre>
52. <input type="checkbox"/>	PMAC Guest VM: Exit from the PMAC server	<pre>\$ exit</pre>
THIS PROCEDURE HAS BEEN COMPLETED		

SDS Software Upgrade Guide

Procedure 15 adds the newly created SOAM VM to the SOAM server group.

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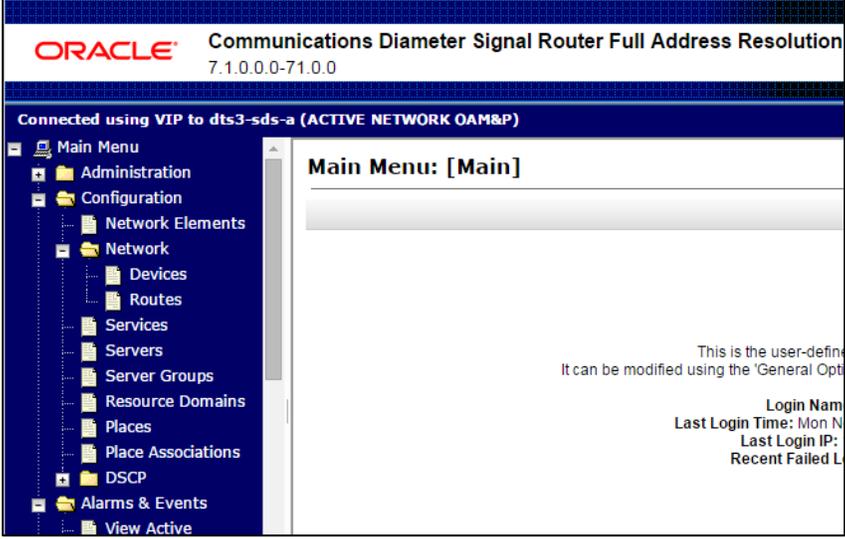
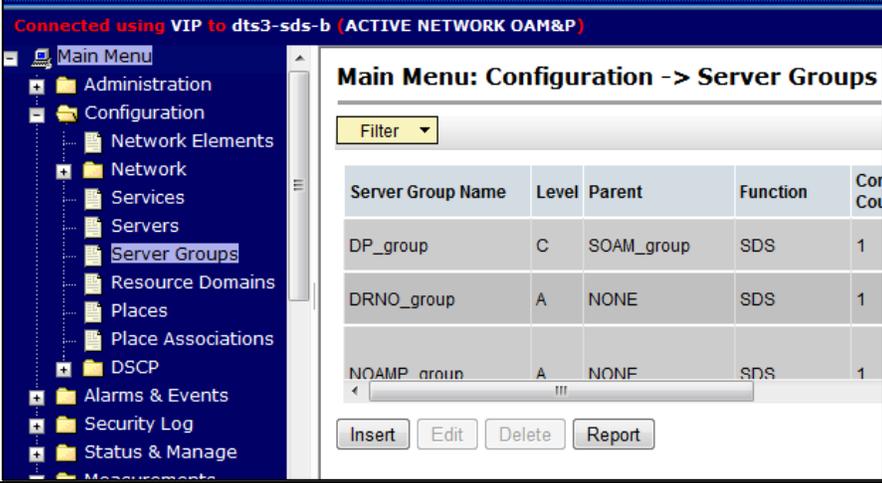
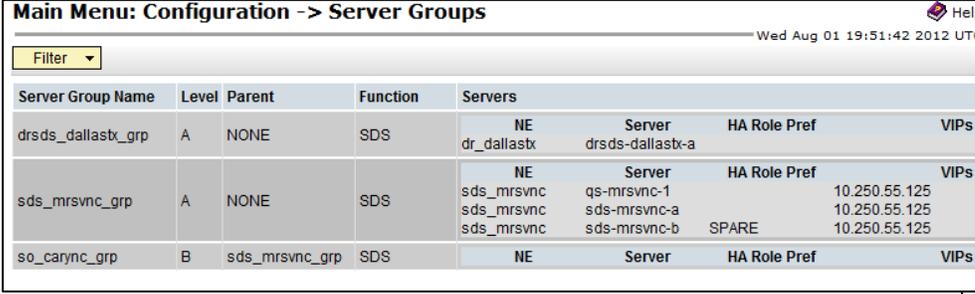
Procedure 15: Placing the SDS SOAM VM into the SOAM Server Group

Step	Procedure	Result
<p>1.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>SDS NOAM VIP:</p> <p>Launch an approved web browser and connect to the SDS VIP address</p> <p>NOTE: <i>If presented with the “security certificate” warning screen shown to the right, choose the following option: “Continue to this website (not recommended)”.</i></p>	
<p>2.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>SDS NOAM VIP:</p> <p>The user should be presented the login screen shown on the right.</p> <p>Login to the GUI using the default user and password.</p>	

SDS Software Upgrade Guide

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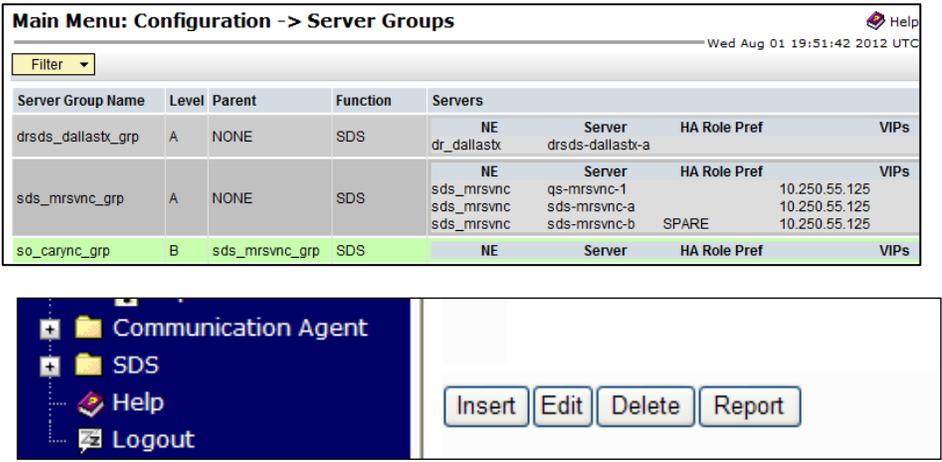
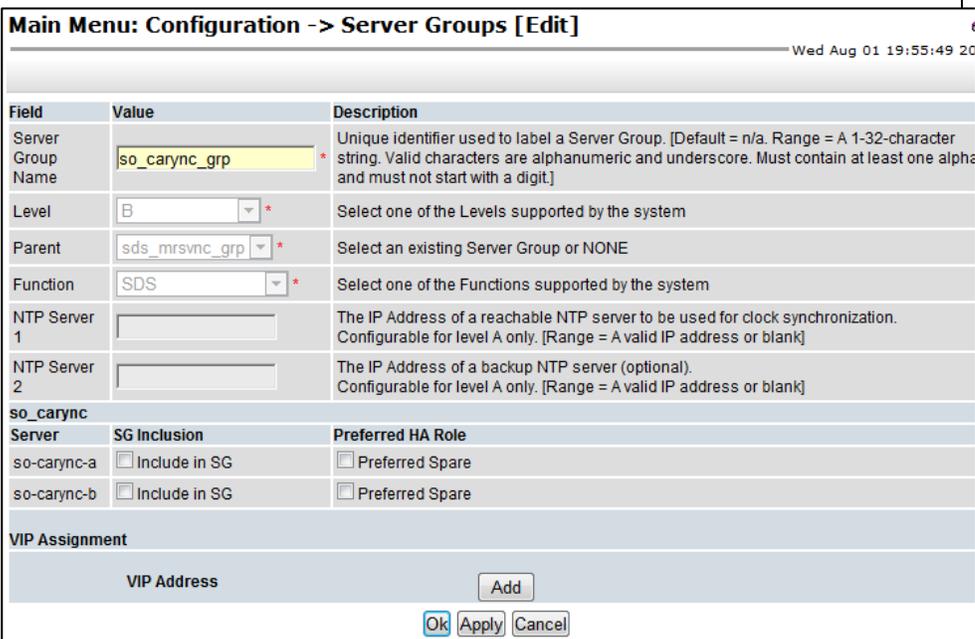
Procedure 15: Placing the SDS SOAM VM into the SOAM Server Group

Step	Procedure	Result																												
<p>3.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>SDS NOAM VIP: The user should be presented the SDS Main Menu as shown on the right.</p>																													
<p>4.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>SDS NOAM VIP: Select... Main Menu → Configuration → Server Groups ...as shown on the right.</p>																													
<p>5.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>SDS NOAM VIP: The Server Group entry should be shown on the “Server Groups” configuration screen as shown on the right.</p>	 <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Servers</th> <th>HA Role Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>drsds_dallastx_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>NE dr_dallastx</td> <td>Server drsds-dallastx-a</td> <td></td> </tr> <tr> <td>sds_mrsvnc_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>NE sds_mrsvnc sds_mrsvnc sds_mrsvnc</td> <td>Server qs-mrsvnc-1 sds-mrsvnc-a sds-mrsvnc-b SPARE</td> <td>10.250.55.125 10.250.55.125 10.250.55.125</td> </tr> <tr> <td>so_carync_grp</td> <td>B</td> <td>sds_mrsvnc_grp</td> <td>SDS</td> <td>NE</td> <td>Server</td> <td></td> </tr> </tbody> </table>	Server Group Name	Level	Parent	Function	Servers	HA Role Pref	VIPs	drsds_dallastx_grp	A	NONE	SDS	NE dr_dallastx	Server drsds-dallastx-a		sds_mrsvnc_grp	A	NONE	SDS	NE sds_mrsvnc sds_mrsvnc sds_mrsvnc	Server qs-mrsvnc-1 sds-mrsvnc-a sds-mrsvnc-b SPARE	10.250.55.125 10.250.55.125 10.250.55.125	so_carync_grp	B	sds_mrsvnc_grp	SDS	NE	Server	
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SDS Software Upgrade Guide

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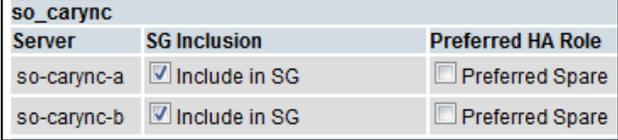
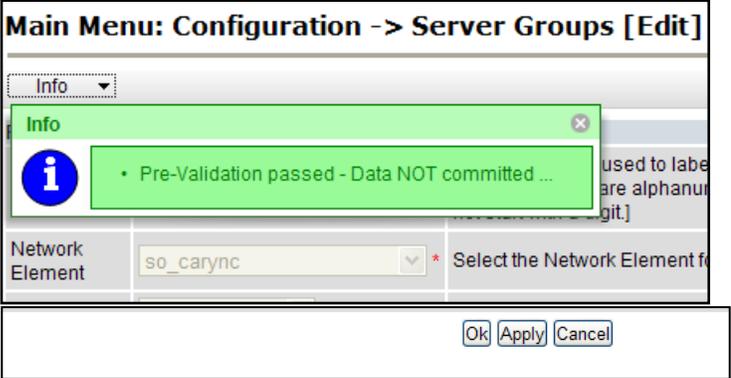
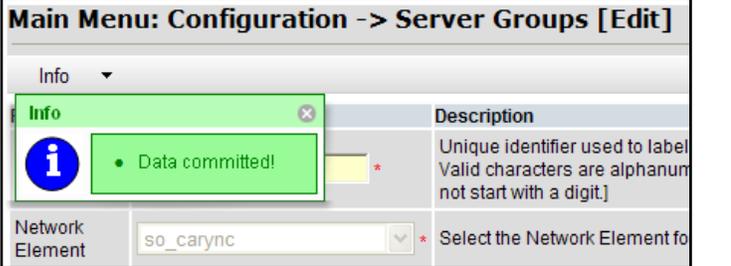
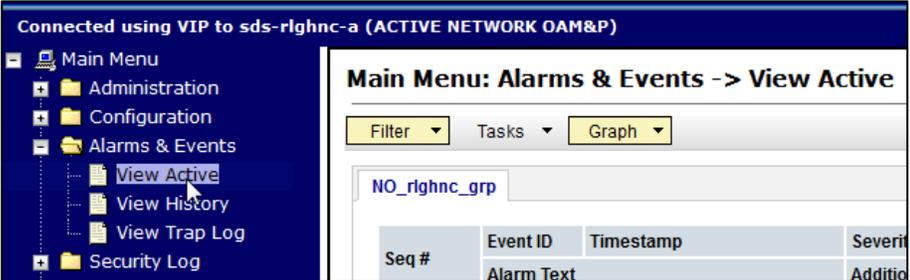
Procedure 15: Placing the SDS SOAM VM into the SOAM Server Group

Step	Procedure	Result																																										
<p>6.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>SDS NOAM VIP:</p> <p>1) Select the row containing the Server Group with the SOAM server which was converted to the 1B Subscriber profile. The line entry should now be highlighted in GREEN.</p> <p>2) Select the “Edit” dialogue button from the bottom left corner of the screen.</p> <p>NOTE: <i>The user may need to use the vertical scrollbar in order to make the “Edit” dialogue button visible.</i></p>	 <p>Main Menu: Configuration -> Server Groups</p> <p>Filter</p> <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Servers</th> <th>HA Role Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>drdsds_dallastx_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>NE dr_dallastx</td> <td>Server drdsds-dallastx-a</td> <td></td> </tr> <tr> <td>sds_mrsvnc_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>NE sds_mrsvnc sds_mrsvnc sds_mrsvnc</td> <td>Server qs-mrsvnc-1 sds-mrsvnc-a sds-mrsvnc-b</td> <td>10.250.55.125 10.250.55.125 10.250.55.125</td> </tr> <tr style="background-color: #e0ffe0;"> <td>so_carync_grp</td> <td>B</td> <td>sds_mrsvnc_grp</td> <td>SDS</td> <td>NE</td> <td>Server</td> <td>HA Role Pref VIPs</td> </tr> </tbody> </table> <p>Communication Agent SDS Help Logout</p> <p>Insert Edit Delete Report</p>	Server Group Name	Level	Parent	Function	Servers	HA Role Pref	VIPs	drdsds_dallastx_grp	A	NONE	SDS	NE dr_dallastx	Server drdsds-dallastx-a		sds_mrsvnc_grp	A	NONE	SDS	NE sds_mrsvnc sds_mrsvnc sds_mrsvnc	Server qs-mrsvnc-1 sds-mrsvnc-a sds-mrsvnc-b	10.250.55.125 10.250.55.125 10.250.55.125	so_carync_grp	B	sds_mrsvnc_grp	SDS	NE	Server	HA Role Pref VIPs														
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<p>7.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>SDS NOAM VIP:</p> <p>The user will be presented with the “Server Groups [Edit]” screen as shown on the right.</p>	 <p>Main Menu: Configuration -> Server Groups [Edit]</p> <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name</td> <td>so_carync_grp *</td> <td>Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.]</td> </tr> <tr> <td>Level</td> <td>B *</td> <td>Select one of the Levels supported by the system</td> </tr> <tr> <td>Parent</td> <td>sds_mrsvnc_grp *</td> <td>Select an existing Server Group or NONE</td> </tr> <tr> <td>Function</td> <td>SDS *</td> <td>Select one of the Functions supported by the system</td> </tr> <tr> <td>NTP Server 1</td> <td></td> <td>The IP Address of a reachable NTP server to be used for clock synchronization. Configurable for level A only. [Range = A valid IP address or blank]</td> </tr> <tr> <td>NTP Server 2</td> <td></td> <td>The IP Address of a backup NTP server (optional). Configurable for level A only. [Range = A valid IP address or blank]</td> </tr> <tr> <td colspan="3">so_carync</td> </tr> <tr> <td>Server</td> <td>SG Inclusion</td> <td>Preferred HA Role</td> </tr> <tr> <td>so-carync-a</td> <td><input type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Preferred Spare</td> </tr> <tr> <td>so-carync-b</td> <td><input type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Preferred Spare</td> </tr> <tr> <td colspan="3">VIP Assignment</td> </tr> <tr> <td colspan="2">VIP Address</td> <td>Add</td> </tr> <tr> <td colspan="3" style="text-align: center;">Ok Apply Cancel</td> </tr> </tbody> </table>	Field	Value	Description	Server Group Name	so_carync_grp *	Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.]	Level	B *	Select one of the Levels supported by the system	Parent	sds_mrsvnc_grp *	Select an existing Server Group or NONE	Function	SDS *	Select one of the Functions supported by the system	NTP Server 1		The IP Address of a reachable NTP server to be used for clock synchronization. Configurable for level A only. [Range = A valid IP address or blank]	NTP Server 2		The IP Address of a backup NTP server (optional). Configurable for level A only. [Range = A valid IP address or blank]	so_carync			Server	SG Inclusion	Preferred HA Role	so-carync-a	<input type="checkbox"/> Include in SG	<input type="checkbox"/> Preferred Spare	so-carync-b	<input type="checkbox"/> Include in SG	<input type="checkbox"/> Preferred Spare	VIP Assignment			VIP Address		Add	Ok Apply Cancel		
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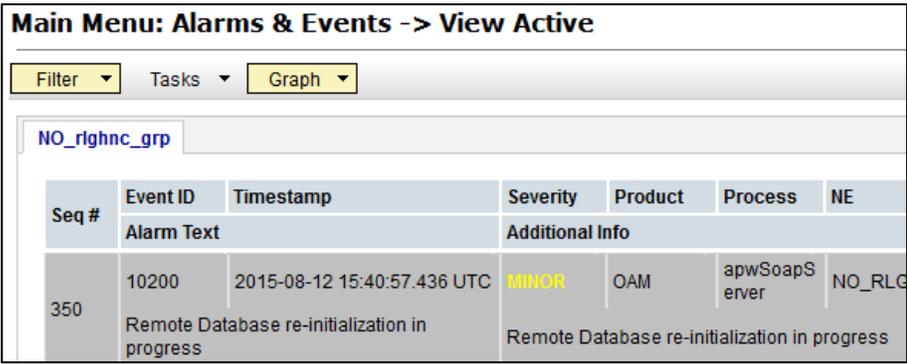
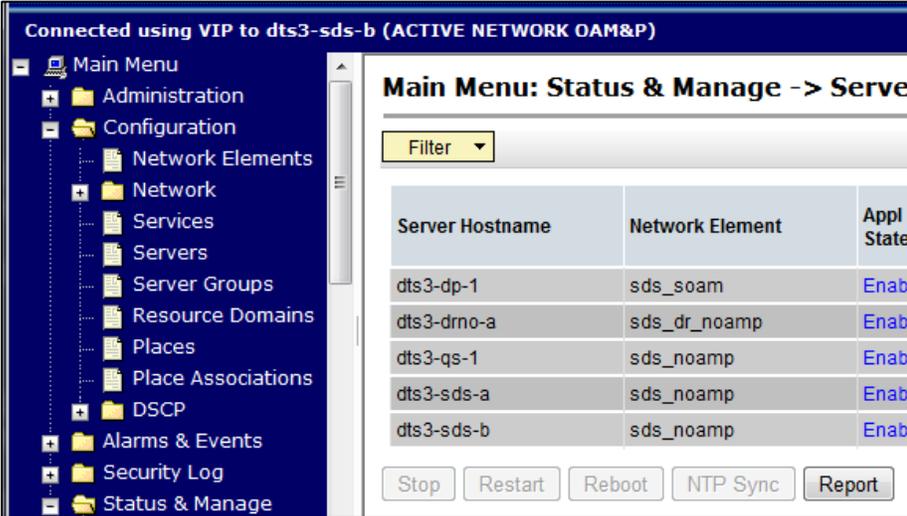
Procedure 15: Placing the SDS SOAM VM into the SOAM Server Group

Step	Procedure	Result									
8. <input type="checkbox"/>	SDS NOAM VIP: Place a Checkmark in the Check Box to the left of the SOAM server name that you wish to add to the SOAM Server Group .	 <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">so_carync</th> <th style="text-align: left;">SG Inclusion</th> <th style="text-align: left;">Preferred HA Role</th> </tr> </thead> <tbody> <tr> <td>so-carync-a</td> <td><input checked="" type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Preferred Spare</td> </tr> <tr> <td>so-carync-b</td> <td><input checked="" type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Preferred Spare</td> </tr> </tbody> </table>	so_carync	SG Inclusion	Preferred HA Role	so-carync-a	<input checked="" type="checkbox"/> Include in SG	<input type="checkbox"/> Preferred Spare	so-carync-b	<input checked="" type="checkbox"/> Include in SG	<input type="checkbox"/> Preferred Spare
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9. <input type="checkbox"/>	SDS NOAM VIP: 1) The user should be presented with a banner information message stating “Pre-Validation passed” . 2) Select the “Apply” dialogue button.	 <p>Main Menu: Configuration -> Server Groups [Edit]</p> <p>Info</p> <p>Info</p> <ul style="list-style-type: none"> • Pre-Validation passed - Data NOT committed ... <p>Network Element: so_carync</p> <p>Buttons: [Ok] [Apply] [Cancel]</p>									
10. <input type="checkbox"/>	SDS NOAM VIP: The user should be presented with a banner information message stating “Data committed” .	 <p>Main Menu: Configuration -> Server Groups [Edit]</p> <p>Info</p> <p>Info</p> <ul style="list-style-type: none"> • Data committed! <p>Network Element: so_carync</p>									
11. <input type="checkbox"/>	SDS NOAM VIP: Select... Main Menu → Alarms & Events → View Active ...as shown on the right.	 <p>Connected using VIP to sds-rlghnc-a (ACTIVE NETWORK OAM&P)</p> <p>Main Menu</p> <ul style="list-style-type: none"> Administration Configuration Alarms & Events <ul style="list-style-type: none"> View Active View History View Trap Log Security Log <p>Main Menu: Alarms & Events -> View Active</p> <p>Filter Tasks Graph</p> <p>NO_rlghnc_grp</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Seq #</th> <th>Event ID</th> <th>Timestamp</th> <th>Severity</th> </tr> </thead> <tbody> <tr> <td></td> <td>Alarm Text</td> <td></td> <td>Additio</td> </tr> </tbody> </table>	Seq #	Event ID	Timestamp	Severity		Alarm Text		Additio	
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Procedure 15: Placing the SDS SOAM VM into the SOAM Server Group

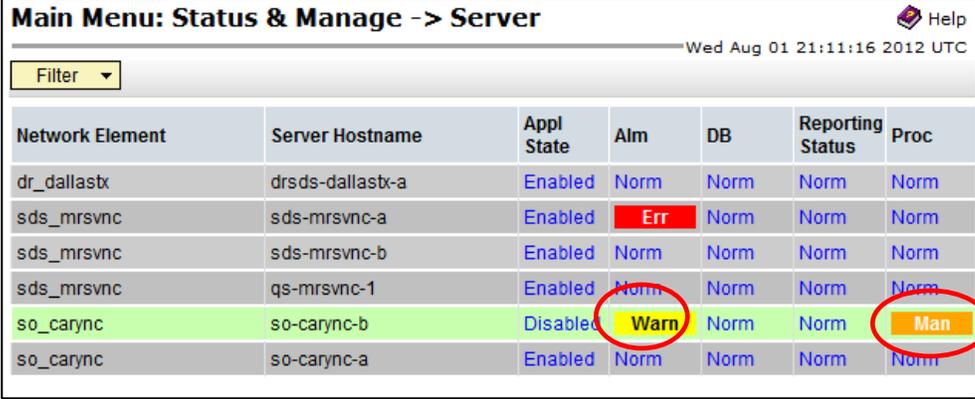
Step	Procedure	Result
12. <input type="checkbox"/>	<p>SDS NOAM VIP: Verify that Event ID 10200 (<i>Remote Database re-initialization in progress</i>) alarms are present with the SDS SOAM Server hostname in the "Instance" field..</p>	
<div style="display: flex; align-items: center;">  <p>MONITOR THE EVENT ID 10200 (<i>Remote Database re-initialization in progress</i>) ALARMS. DO NOT PROCEED TO THE NEXT STEP UNTIL THE ALARM CLEAR IS RECEIVED FOR THE SDS SOAM SERVER.</p> </div>		
13. <input type="checkbox"/>	<p>SDS NOAM VIP: Select...</p> <p>Main Menu → Status & Manage → Server</p> <p>...as shown on the right.</p>	

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Procedure 15: Placing the SDS SOAM VM into the SOAM Server Group

Step	Procedure	Result																																																	
<p>14.</p> <input type="checkbox"/>	<p>SDS NOAM VIP:</p> <p>1) The converted SOAM server should now appear in the right panel.</p> <p>2) Verify that the “DB” status shows “Norm” and the “Proc” status shows “Man” for the SOAM server before proceeding to the next Step.</p>	 <p>Main Menu: Status & Manage -> Server Help</p> <p style="text-align: right;">Wed Aug 01 21:11:16 2012 UTC</p> <p>Filter ▾</p> <table border="1"> <thead> <tr> <th>Network Element</th> <th>Server Hostname</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>dr_dallastx</td> <td>drsds-dallastx-a</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-a</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-b</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>qs-mrsvnc-1</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr style="background-color: #e0ffe0;"> <td>so_carync</td> <td>so-carync-b</td> <td>Disabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>so_carync</td> <td>so-carync-a</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table>	Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc	dr_dallastx	drsds-dallastx-a	Enabled	Norm	Norm	Norm	Norm	sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm	sds_mrsvnc	sds-mrsvnc-b	Enabled	Norm	Norm	Norm	Norm	sds_mrsvnc	qs-mrsvnc-1	Enabled	Norm	Norm	Norm	Norm	so_carync	so-carync-b	Disabled	Warn	Norm	Norm	Man	so_carync	so-carync-a	Enabled	Norm	Norm	Norm	Norm
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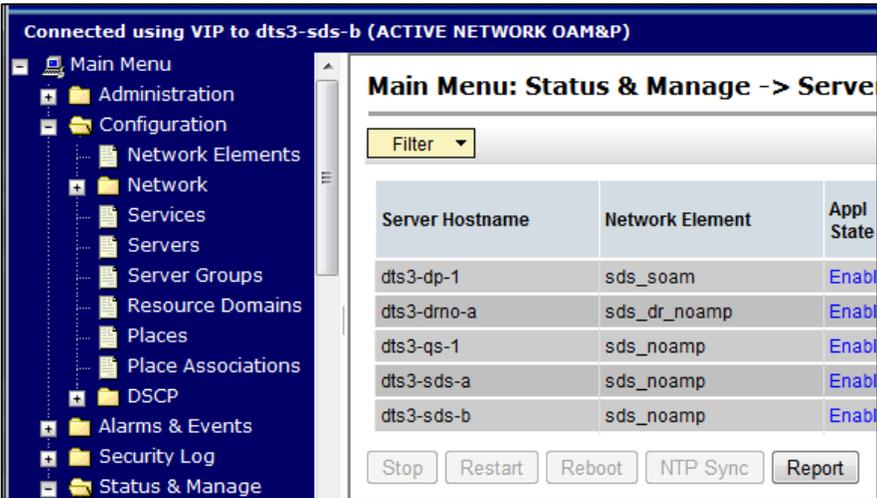
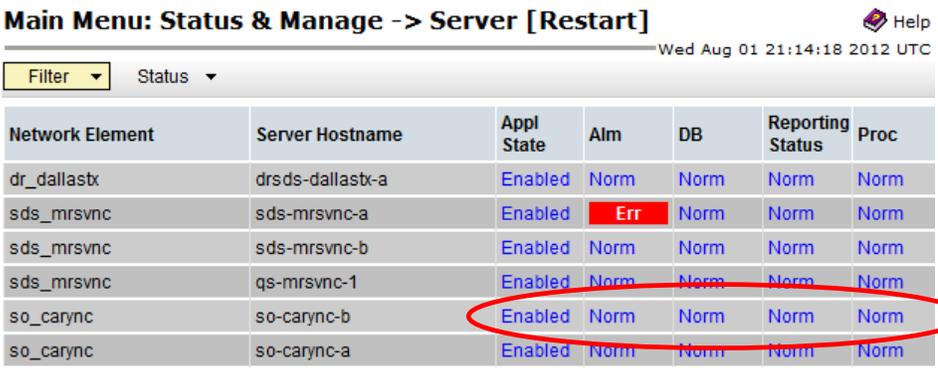
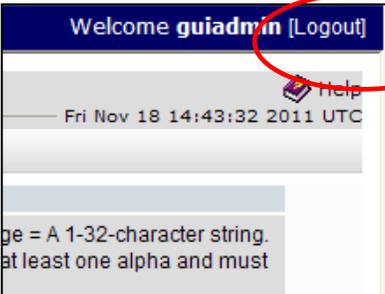
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<p>15.</p> <input type="checkbox"/>	<p>SDS NOAM VIP:</p> <p>1) Using the mouse, select the row containing the converted SOAM server. The line entry should now be highlighted in GREEN.</p> <p>2) Select the “Restart” dialogue button from the bottom left corner of the screen.</p> <p>3) Click the “OK” button on the confirmation dialogue box.</p> <p>4) The user should be presented with a confirmation message (in the banner area) for the SOAM server stating: “Successfully restarted application”.</p>	<p>Main Menu: Status & Manage -> Server</p> <p>Wed Aug 01 21:11:16 2012 UTC</p> <table border="1"> <thead> <tr> <th>Network Element</th> <th>Server Hostname</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>dr_dallastx</td> <td>drsds-dallastx-a</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-a</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-b</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>qs-mrsvnc-1</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>so_carync</td> <td>so-carync-b</td> <td>Disabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>so_carync</td> <td>so-carync-a</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table> <p>Buttons: Stop, Restart, Reboot</p> <p>Confirmation Dialog: Are you sure you wish to restart application software on the following server(s)? so-carync-a</p> <p>Buttons: OK, Cancel</p> <p>Main Menu: Status & Manage -> Server [Restart]</p> <p>Status: so-carync-a: Successfully restarted application.</p>	Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc	dr_dallastx	drsds-dallastx-a	Enabled	Norm	Norm	Norm	Norm	sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm	sds_mrsvnc	sds-mrsvnc-b	Enabled	Norm	Norm	Norm	Norm	sds_mrsvnc	qs-mrsvnc-1	Enabled	Norm	Norm	Norm	Norm	so_carync	so-carync-b	Disabled	Warn	Norm	Norm	Man	so_carync	so-carync-a	Enabled	Norm	Norm	Norm	Norm
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17. <input type="checkbox"/>	<p>SDS NOAM VIP: Verify that the “Appl State” now shows “Enabled” and that the “Alm, DB, Reporting Status & Proc” status columns all show “Norm” for the converted SOAM server before proceeding to the next Step.</p>	 <p>Main Menu: Status & Manage -> Server [Restart]</p> <p>Wed Aug 01 21:14:18 2012 UTC</p> <table border="1"> <thead> <tr> <th>Network Element</th> <th>Server Hostname</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>dr_dallastx</td> <td>drsd-dallastx-a</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-a</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-b</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>qs-mrsvnc-1</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>so_carync</td> <td>so-carync-b</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>so_carync</td> <td>so-carync-a</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table> <p>NOTE: If user chooses to refresh the Server status screen in advance of the default setting (15-30 sec.). This may be done by simply reselecting the “Status & Manage -> Server” option from the Main menu on the left.</p>	Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc	dr_dallastx	drsd-dallastx-a	Enabled	Norm	Norm	Norm	Norm	sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm	sds_mrsvnc	sds-mrsvnc-b	Enabled	Norm	Norm	Norm	Norm	sds_mrsvnc	qs-mrsvnc-1	Enabled	Norm	Norm	Norm	Norm	so_carync	so-carync-b	Enabled	Norm	Norm	Norm	Norm	so_carync	so-carync-a	Enabled	Norm	Norm	Norm	Norm
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sds_mrsvnc	sds-mrsvnc-b	Enabled	Norm	Norm	Norm	Norm																																													
sds_mrsvnc	qs-mrsvnc-1	Enabled	Norm	Norm	Norm	Norm																																													
so_carync	so-carync-b	Enabled	Norm	Norm	Norm	Norm																																													
so_carync	so-carync-a	Enabled	Norm	Norm	Norm	Norm																																													
18. <input type="checkbox"/>	<p>SDS NOAM VIP: Click the “Logout” link on the SDS server GUI.</p>	 <p>Welcome guidmin [Logout]</p> <p>Fri Nov 18 14:43:32 2011 UTC</p> <p>ge = A 1-32-character string. at least one alpha and must</p>																																																	

SDS Software Upgrade Guide

Check off (√) each step as it is completed. Boxes have been provided for this purpose under each step number.
Should ANY STEP IN THIS PROCEDURE FAIL, it is recommended to STOP AND Contact MOS FOR ASSISTANCE BEFORE CONTINUING!

Procedure 15: Placing the SDS SOAM VM into the SOAM Server Group

Step	Procedure	Result
19.	SDS Health Check	Execute SDS Health Check procedures as specified in Appendix B
THIS PROCEDURE HAS BEEN COMPLETED		

Appendix M Manual Completion of Server Upgrade

This procedure is performed to recover a server that did not properly complete an upgrade. This procedure should be performed only when directed by MOS or by another procedure within this document.

In the normal upgrade scenario, the steps in this procedure are automatically performed by the upgrade process.

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

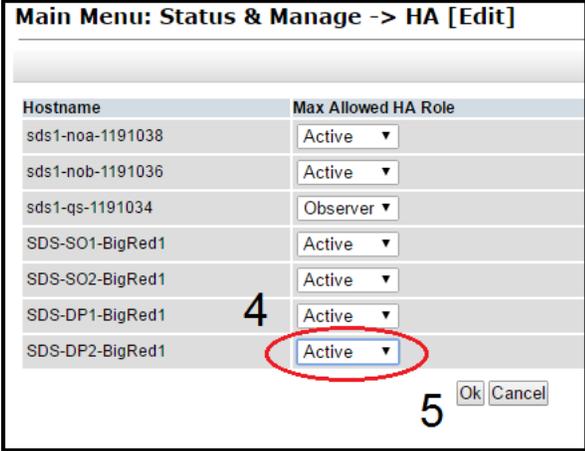
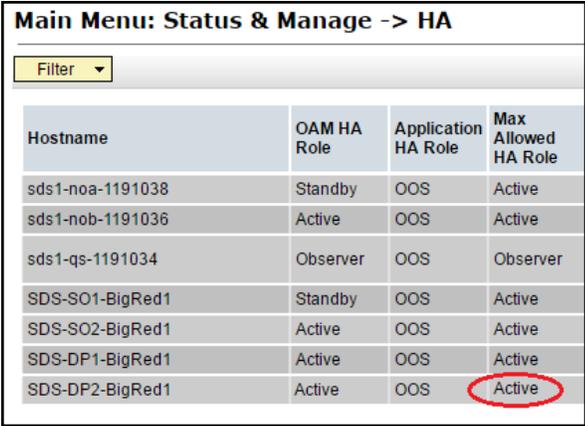
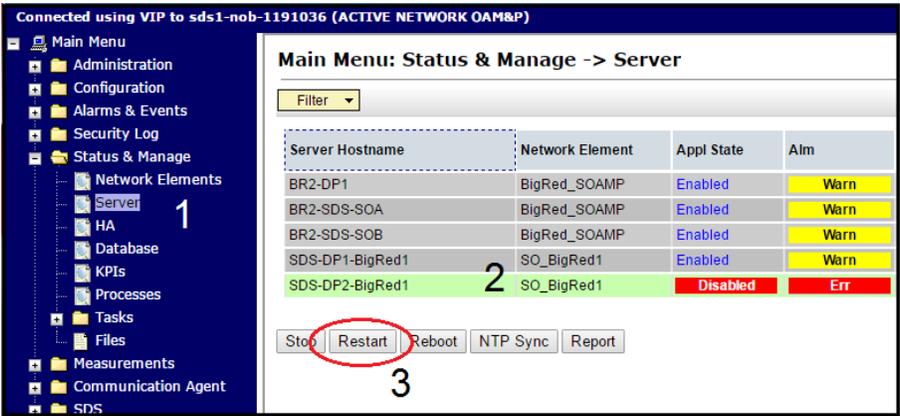
SHOULD ANY STEP IN THIS PROCEDURE FAIL, IT IS RECOMMENDED TO STOP AND CONTACT MOS FOR ASSISTANCE BEFORE CONTINUING!

Appendix M: Manual Completion of Server Upgrade

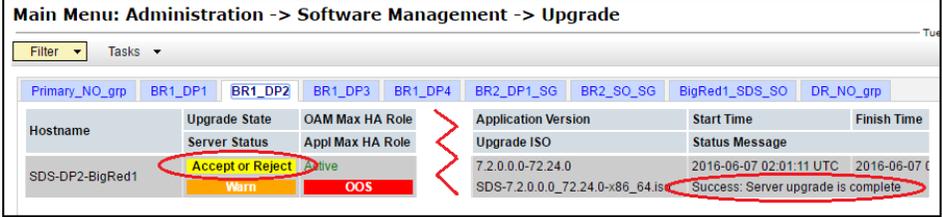
Step	Procedure	Result																																				
<p>1.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>1) Select... Main Menu → Status & Manage → HA</p> <p>2) Locate the server to be completed. Verify the Max Allowed HA Role is 'Standby'.</p>	<p>Connected using VIP to sds1-nob-1191036 (ACTIVE NETWORK OAM&P)</p> <p>Main Menu: Status & Manage -> HA</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>OAM HA Role</th> <th>Application HA Role</th> <th>Max Allowed HA Role</th> </tr> </thead> <tbody> <tr> <td>sds1-noa-1191038</td> <td>Standby</td> <td>OOS</td> <td>Active</td> </tr> <tr> <td>sds1-nob-1191036</td> <td>Active</td> <td>OOS</td> <td>Active</td> </tr> <tr> <td>sds1-qs-1191034</td> <td>Observer</td> <td>OOS</td> <td>Observer</td> </tr> <tr> <td>SDS-SO1-BigRed1</td> <td>Standby</td> <td>OOS</td> <td>Active</td> </tr> <tr> <td>SDS-SO2-BigRed1</td> <td>Active</td> <td>OOS</td> <td>Active</td> </tr> <tr> <td>SDS-DP1-BigRed1</td> <td>Active</td> <td>OOS</td> <td>Active</td> </tr> <tr> <td>SDS-DP2-BigRed1</td> <td>Standby</td> <td>OOS</td> <td>Standby</td> </tr> <tr> <td>SDS-DP3-BigRed1</td> <td>Active</td> <td>OOS</td> <td>Active</td> </tr> </tbody> </table>	Hostname	OAM HA Role	Application HA Role	Max Allowed HA Role	sds1-noa-1191038	Standby	OOS	Active	sds1-nob-1191036	Active	OOS	Active	sds1-qs-1191034	Observer	OOS	Observer	SDS-SO1-BigRed1	Standby	OOS	Active	SDS-SO2-BigRed1	Active	OOS	Active	SDS-DP1-BigRed1	Active	OOS	Active	SDS-DP2-BigRed1	Standby	OOS	Standby	SDS-DP3-BigRed1	Active	OOS	Active
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SDS-DP3-BigRed1	Active	OOS	Active																																			
<p>2.</p>	<p>Primary SDS NOAM VIP:</p> <p>3) Click the 'Edit' button.</p>	<p>Main Menu: Status & Manage -> HA</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>OAM HA Role</th> <th>Application HA Role</th> <th>Max Allowed HA Role</th> </tr> </thead> <tbody> <tr> <td>sds1-noa-1191038</td> <td>Standby</td> <td>OOS</td> <td>Active</td> </tr> <tr> <td>sds1-nob-1191036</td> <td>Active</td> <td>OOS</td> <td>Active</td> </tr> <tr> <td>sds1-qs-1191034</td> <td>Observer</td> <td>OOS</td> <td>Observer</td> </tr> <tr> <td>SDS-SO1-BigRed1</td> <td>Standby</td> <td>OOS</td> <td>Active</td> </tr> <tr> <td>SDS-SO2-BigRed1</td> <td>Active</td> <td>OOS</td> <td>Active</td> </tr> <tr> <td>SDS-DP1-BigRed1</td> <td>Active</td> <td>OOS</td> <td>Active</td> </tr> <tr> <td>SDS-DP2-BigRed1</td> <td>Standby</td> <td>OOS</td> <td>Standby</td> </tr> </tbody> </table>	Hostname	OAM HA Role	Application HA Role	Max Allowed HA Role	sds1-noa-1191038	Standby	OOS	Active	sds1-nob-1191036	Active	OOS	Active	sds1-qs-1191034	Observer	OOS	Observer	SDS-SO1-BigRed1	Standby	OOS	Active	SDS-SO2-BigRed1	Active	OOS	Active	SDS-DP1-BigRed1	Active	OOS	Active	SDS-DP2-BigRed1	Standby	OOS	Standby				
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SDS Software Upgrade Guide

Appendix M: Manual Completion of Server Upgrade

Step	Procedure	Result																																
3.	<p>Primary SDS NOAM VIP:</p> <p>4) Change the Max Allowed HA Role picklist to 'Active' for the server to be completed.</p> <p>5) Click 'Ok' to commit the change.</p>	 <p>Main Menu: Status & Manage -> HA [Edit]</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Max Allowed HA Role</th> </tr> </thead> <tbody> <tr><td>sds1-noa-1191038</td><td>Active</td></tr> <tr><td>sds1-nob-1191036</td><td>Active</td></tr> <tr><td>sds1-qs-1191034</td><td>Observer</td></tr> <tr><td>SDS-SO1-BigRed1</td><td>Active</td></tr> <tr><td>SDS-SO2-BigRed1</td><td>Active</td></tr> <tr><td>SDS-DP1-BigRed1</td><td>Active</td></tr> <tr><td>SDS-DP2-BigRed1</td><td>Active</td></tr> </tbody> </table> <p>Ok Cancel</p>	Hostname	Max Allowed HA Role	sds1-noa-1191038	Active	sds1-nob-1191036	Active	sds1-qs-1191034	Observer	SDS-SO1-BigRed1	Active	SDS-SO2-BigRed1	Active	SDS-DP1-BigRed1	Active	SDS-DP2-BigRed1	Active																
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4.	<p>Primary SDS NOAM VIP:</p> <p>6) Verify the Max Allowed HA Role changes to 'Active'.</p>	 <p>Main Menu: Status & Manage -> HA</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>OAM HA Role</th> <th>Application HA Role</th> <th>Max Allowed HA Role</th> </tr> </thead> <tbody> <tr><td>sds1-noa-1191038</td><td>Standby</td><td>OOS</td><td>Active</td></tr> <tr><td>sds1-nob-1191036</td><td>Active</td><td>OOS</td><td>Active</td></tr> <tr><td>sds1-qs-1191034</td><td>Observer</td><td>OOS</td><td>Observer</td></tr> <tr><td>SDS-SO1-BigRed1</td><td>Standby</td><td>OOS</td><td>Active</td></tr> <tr><td>SDS-SO2-BigRed1</td><td>Active</td><td>OOS</td><td>Active</td></tr> <tr><td>SDS-DP1-BigRed1</td><td>Active</td><td>OOS</td><td>Active</td></tr> <tr><td>SDS-DP2-BigRed1</td><td>Active</td><td>OOS</td><td>Active</td></tr> </tbody> </table>	Hostname	OAM HA Role	Application HA Role	Max Allowed HA Role	sds1-noa-1191038	Standby	OOS	Active	sds1-nob-1191036	Active	OOS	Active	sds1-qs-1191034	Observer	OOS	Observer	SDS-SO1-BigRed1	Standby	OOS	Active	SDS-SO2-BigRed1	Active	OOS	Active	SDS-DP1-BigRed1	Active	OOS	Active	SDS-DP2-BigRed1	Active	OOS	Active
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5.	<p>Primary SDS NOAM VIP:</p> <p>1) Select...</p> <p>Main Menu → Status & Manage → Server</p> <p>2) Select the server to be completed.</p> <p>3) Click the Restart button to restart the application.</p> <p>After a few minutes, the Appl State will change to 'Enabled'.</p>	 <p>Connected using VIP to sds1-nob-1191036 (ACTIVE NETWORK OAM&P)</p> <p>Main Menu: Status & Manage -> Server</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Aim</th> </tr> </thead> <tbody> <tr><td>BR2-DP1</td><td>BigRed_SOAMP</td><td>Enabled</td><td>Warn</td></tr> <tr><td>BR2-SDS-SOA</td><td>BigRed_SOAMP</td><td>Enabled</td><td>Warn</td></tr> <tr><td>BR2-SDS-SOB</td><td>BigRed_SOAMP</td><td>Enabled</td><td>Warn</td></tr> <tr><td>SDS-DP1-BigRed1</td><td>SO_BigRed1</td><td>Enabled</td><td>Warn</td></tr> <tr><td>SDS-DP2-BigRed1</td><td>SO_BigRed1</td><td>Disabled</td><td>Err</td></tr> </tbody> </table> <p>Stop Restart Reboot NTP Sync Report</p>	Server Hostname	Network Element	Appl State	Aim	BR2-DP1	BigRed_SOAMP	Enabled	Warn	BR2-SDS-SOA	BigRed_SOAMP	Enabled	Warn	BR2-SDS-SOB	BigRed_SOAMP	Enabled	Warn	SDS-DP1-BigRed1	SO_BigRed1	Enabled	Warn	SDS-DP2-BigRed1	SO_BigRed1	Disabled	Err								
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Appendix M: Manual Completion of Server Upgrade

Step	Procedure	Result
6.	<p>Primary SDS NOAM VIP:</p> <p>1) Select...</p> <p>Main Menu → Administration → Software Management → Upgrade</p> <p>2) Verify the Upgrade State changes to 'Accept or Reject' and the Status Message changes to 'Success: Server manually completed'.</p>	
7.	<p>Return to the referring procedure.</p>	<ul style="list-style-type: none"> Return to the Procedure/Step which referred to Appendix M: Manual Completion of Server Upgrade.
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>		

Appendix N Accessing My Oracle Support (MOS)

My Oracle Support

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>. When calling, there are multiple layers of menu 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.

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

Emergency Response

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

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