

**Oracle<sup>®</sup> Communications**  
**Diameter Signaling Router Full Address Resolution**

**SDS Software Upgrade User's Guide**

**Release 7.1**

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## 1. INTRODUCTION

### 1.1 Purpose and Scope

This document describes methods utilized and procedures executed to perform an application's software upgrade on in-service SDS servers and SDS DP blades in an SDS network. Supported paths are major upgrades from SDS 5.0 to SDS 7.1 and minor upgrades from SDS Software Release 7.1.0-71.x to a later 7.1.y-71.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 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 new SDS 7.1 release introduces the new 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.

### 1.2 References

- [1] SDS 7.1 Initial Installation and Configuration Guide, E58856
- [2] Database Management: Backup and System Restoration, UG005196
- [3] SDS 4.0 Disaster Recovery Guide, UG006387
- [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

### 1.3 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

Table 1 - Acronyms

### 1.4 Terminology

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

Term	Meaning
<b>Upgrade</b>	The process of converting an application from its current release on a System to a newer release.
<b>Major Upgrade</b>	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.
<b>Incremental Upgrade</b>	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.
<b>Software Only Upgrade</b>	An upgrade that does not require a Database Schema change, only the software is changed.
<b>Single Server Upgrade</b>	The process of converting an SDS server from its current release on a single server to a newer release.
<b>Backout</b>	The process of converting a single SDS server to a prior version. This could be performed due to failure in Single Server Upgrade.
<b>Rollback</b>	Automatic recovery procedure that puts a server into its pre-upgrade status. This procedure occurs automatically during upgrade if there is a failure.
<b>Source Release</b>	Software release to upgrade from.
<b>Target Release</b>	Software release to upgrade to.
<b>Upgrade Ready</b>	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: <ul style="list-style-type: none"> <li>• Server is Forced Standby</li> <li>• Server is Application Disabled (Signaling servers will not process any traffic)</li> </ul>

Table 2 - Terminology

### 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 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** and refer to **Appendix K: Accessing My Oracle Support (MOS)** - for assistance before attempting to continue.

### 1.6 Executing Procedures

The user should be familiar with the structure and conventions used within these procedures before attempting execution. **Table 3** and the details below provide an example of how procedural steps might be displayed within this document.

**Column 1: Step**

- **Table 3**, 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. (See example: Step 1 has sub-steps Steps 1.1 to 1.2).
- Each checkbox should be checked-off in order to keep track of the progress during execution of the procedure.

**Column 2: Procedure**

- **Table 3**, 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**

- **Table 3**, 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.

**Procedure X: Verifying the Time in GMT**

Step	Procedure	Result
1. <input type="checkbox"/>	<b>Active Provisioning Site VIP:</b> Log into the server as the "admusr" user.	login: <b>admusr</b> Password: <b>&lt;admusr_password&gt;</b>
2. <input type="checkbox"/>	<b>Active Provisioning Site VIP:</b> Output similar to that shown on the right will appear as the server returns to a command prompt.	<b>*** TRUNCATED OUTPUT ***</b> VPATH=/var/TKLC/rundb:/usr/TKLC/appworks:/usr/TKLC/awpcom mon:/usr/TKLC/comagent-gui:/usr/TKLC/comagent- gui:/usr/TKLC/comagent:/usr/TKLC/sds PRODPATH=/opt/comcol/prod RUNID=00 \$
3. <input type="checkbox"/>	<b>Active Provisioning Site VIP:</b> Verify that the correct Date & Time are displayed in <b>GMT</b> (+/- 4 min.).	\$ <b>date -u</b> Mon Jan 26 16:34:38 UTC 2015
<b>THIS PROCEDURE HAS BEEN COMPLETED</b>		

**Table 3 - Sample Procedure**

## 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's Tekelec Customer Care Center 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 Supported Upgrade Paths

The supported SDS upgrade path is shown in **Figure 1** and **Figure 2**.

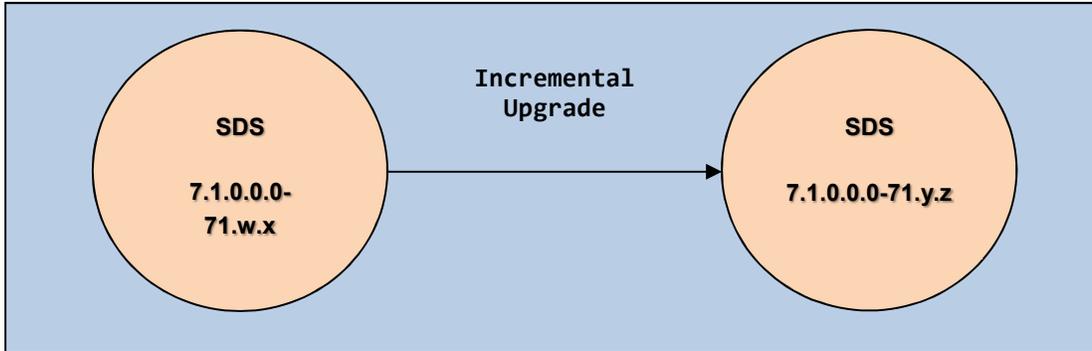


Figure 1: Supported Incremental Upgrade Paths

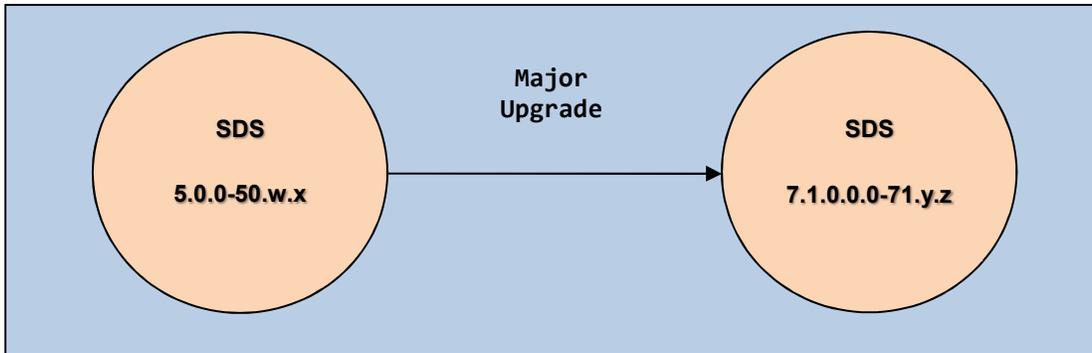


Figure 2: Supported Major Upgrade Paths

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

### 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- 3.7**. These tables are used to plan and estimate the time necessary to complete your 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 begin 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 2<sup>nd</sup> SSH connection can be made to the target server's IMI IP address).

##### 3.1.1 ISO Image File

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

The SDS ISO image filename will be in the following format:

Example:           **SDS-7.1.0.0.0\_71.2.0-x86\_64.iso**

**NOTE:** Actual number values may 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.

### 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.

NE Type	NE Name <sup>T</sup>
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	

**Table 4** - Logins, Passwords and Site Information

### 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><b>Maintenance Window</b> _____</p> <p><b>Date:</b> _____</p> <p>Record the names of the <b>Primary SDS NE site</b>, <b>DR SDS NE site</b>, and server's hostnames to be upgraded during Maintenance Window 1 in the space provided on the right:</p>	<p><b>Primary SDS NE site name:</b> _____</p> <p><input type="checkbox"/> <b>Primary SDS Active Server:</b> _____</p> <p><input type="checkbox"/> <b>Primary SDS Standby Server:</b> _____</p> <p><input type="checkbox"/> <b>Primary SDS Query Server:</b> _____</p> <p><b>DR SDS NE site name:</b> _____</p> <p><input type="checkbox"/> <b>DR SDS Active Server:</b> _____</p> <p><input type="checkbox"/> <b>DR SDS Standby Server:</b> _____</p> <p><input type="checkbox"/> <b>DR SDS Query Server:</b> _____</p> <ul style="list-style-type: none"> <li>• Check-off <input checked="" type="checkbox"/> the associated <b>check box</b> as the upgrade is completed for each server</li> </ul>
<p><b>Maintenance Window</b> _____</p> <p><b>Date:</b> _____</p> <p>Record the name of <b>SOAM NE site</b> and its server's hostnames to be upgraded during the Maintenance Window 2 in the spaces provided on the right.</p>	<p><b>SOAM NE site name:</b> _____</p> <p><input type="checkbox"/> <b>Active SOAM Server:</b> _____</p> <p><input type="checkbox"/> <b>Standby SOAM Server:</b> _____</p> <p><input type="checkbox"/> <b>DP 1 Server:</b> _____      <input type="checkbox"/> <b>DP 6 Server:</b> _____</p> <p><input type="checkbox"/> <b>DP 2 Server:</b> _____      <input type="checkbox"/> <b>DP 7 Server:</b> _____</p> <p><input type="checkbox"/> <b>DP 3 Server:</b> _____      <input type="checkbox"/> <b>DP 8 Server:</b> _____</p> <p><input type="checkbox"/> <b>DP 4 Server:</b> _____      <input type="checkbox"/> <b>DP 9 Server:</b> _____</p> <p><input type="checkbox"/> <b>DP 5 Server:</b> _____      <input type="checkbox"/> <b>DP 10 Server:</b> _____</p> <ul style="list-style-type: none"> <li>• Check-off <input checked="" type="checkbox"/> the associated <b>check box</b> as the upgrade is completed for each server</li> </ul>

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

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

**Table 6** - Upgrade Preparation Procedures

**\*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.

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

**Table 7** - Primary SDS / DR SDS Upgrade Procedures

### 3.5 SOAM Upgrade Execution Overview

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

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

**Table 8** - SOAM Upgrade Procedures

### 3.6 Post Upgrade Execution Overview

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

Procedure Number	Procedure Title	Elapsed Time (Hrs:Min)	
		This Step	Cumulative
7	<i>Upgrade Acceptance</i>	*	*

Table 9 - Post Upgrade Procedures

### 3.7 Recovery Procedures Overview

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

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

Table 10 - Backout Procedures

### 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, the user should contact Oracle’s Tekelec Customer Care Center for the 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	18
2	ISO Administration	20
3	Full Database Backup (PROV & COMCOL ENV for All Servers)	25
4	Upgrade Primary SDS NOAM NE	33
5	Upgrade DR SDS NOAM NE	45
6	Upgrade SOAM NE	48
7	Upgrade Acceptance	51

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

### 5.2 Review Release Notes

Before starting the upgrade, you must review the Release Notes for the new SDS 71.x 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 themselves 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 procedure is part of Software Upgrade Preparation and is used to determine the whether a firmware update is required. If [4] has been provided with the upgrade kit, follow its instructions to verify the firmware on SDS rack mount servers and DP blades. Execute firmware upgrade procedures if required by [4]:

- 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.

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

If performing a **major upgrade** from **SDS 5.0** 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 upgrade to **SDS 7.x**.

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

### 5.4 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 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**.

### 5.5 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, STOP AND CONTACT ORACLE'S TEKELEC CUSTOMER CARE CENTER FOR ASSISTANCE BEFORE CONTINUING!

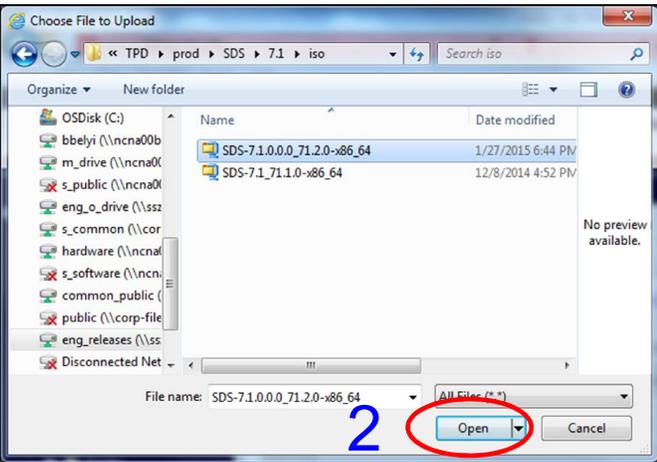
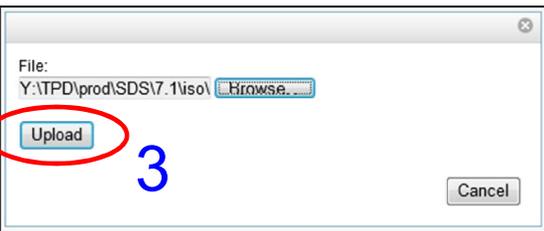
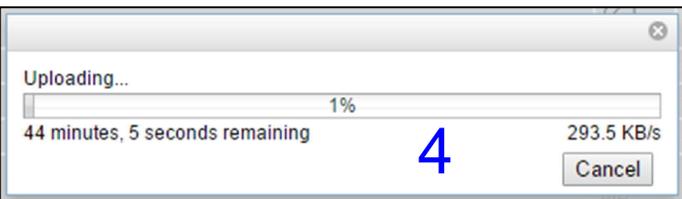
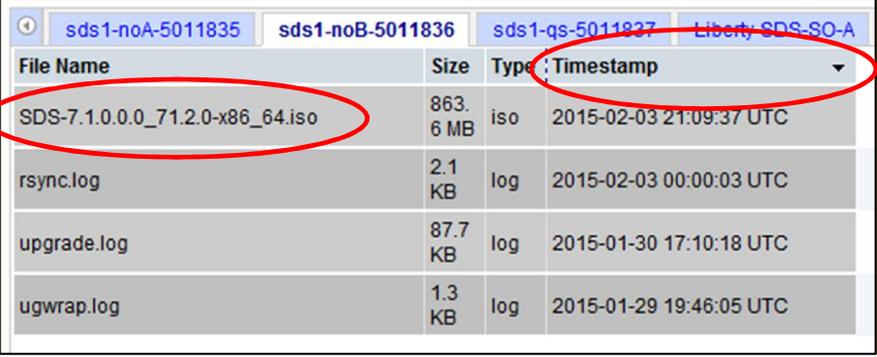


- **Appendix I:** (Adding the SDS ISO to the PM&C Software Repository) may be executed at anytime after **Procedure 2:** (ISO Administration) has been completed.

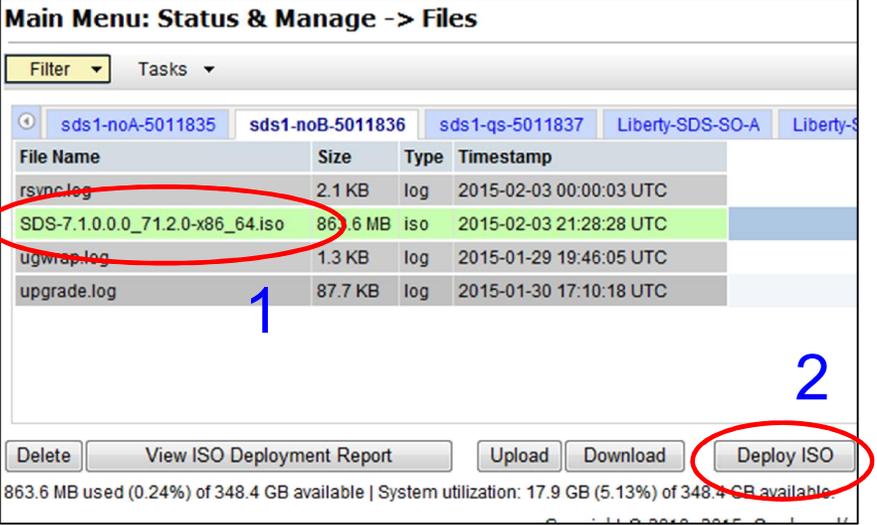
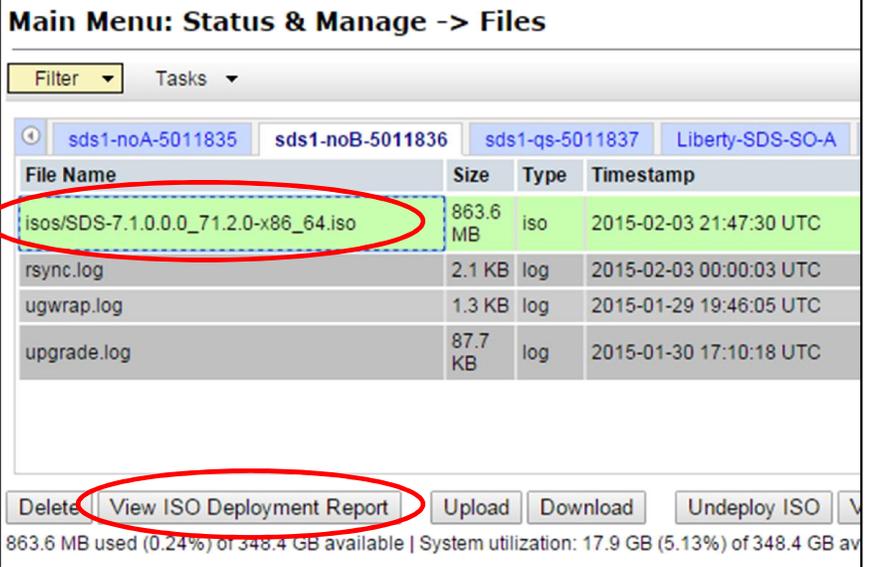
#### Procedure 2: ISO Administration

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

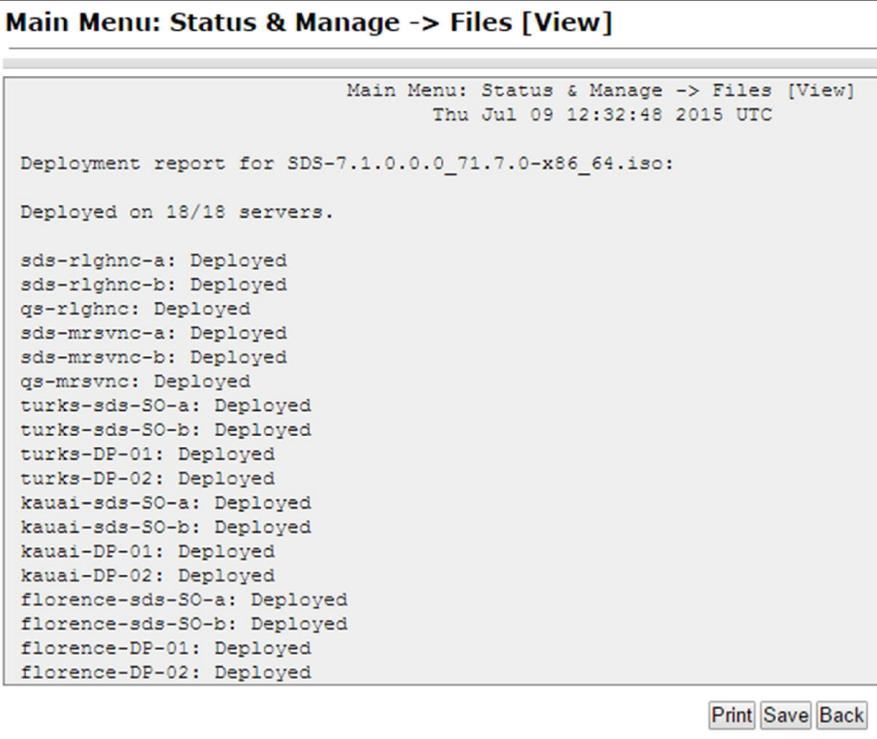
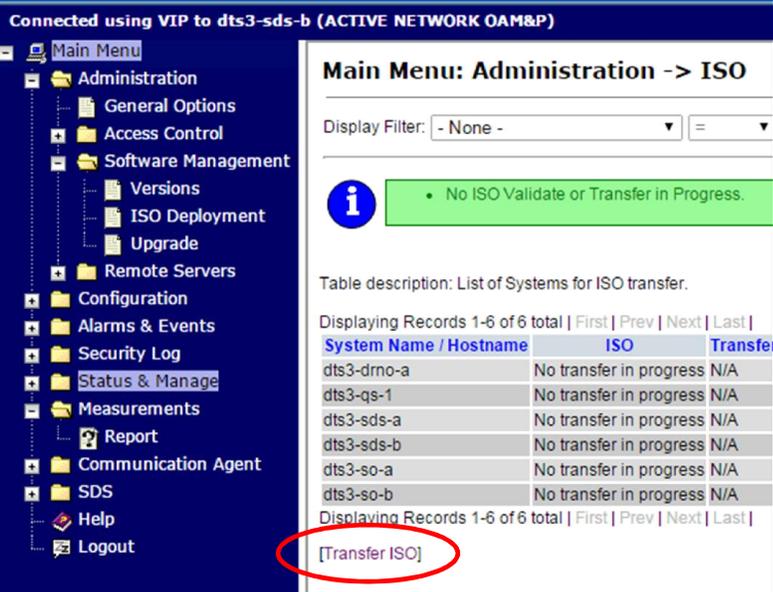
Procedure 2: ISO Administration

Step	Procedure	Result																				
<p>3.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>1) Click on the “Browse...” 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 on the “Open” dialogue button.</p> <p>3) Click on the “Upload a File” dialogue button.</p> <p>4) Monitor the upload until the file transfer completes reaches with 100%.</p> <p><b>NOTE:</b> <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>	   																				
<p>4.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></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 <b>Step 3</b> 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_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_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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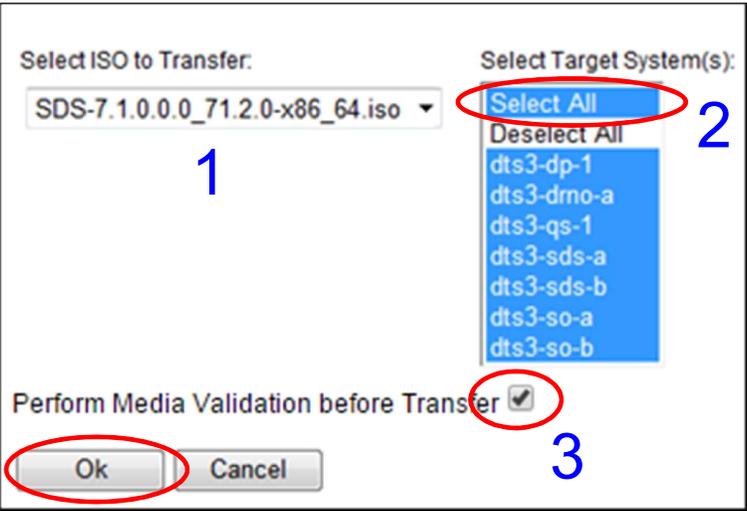
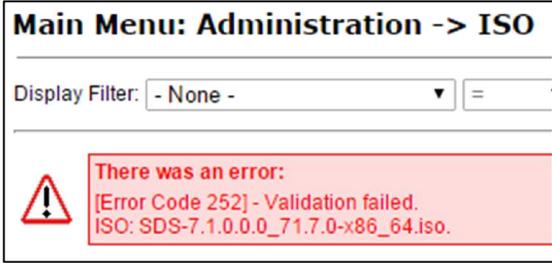
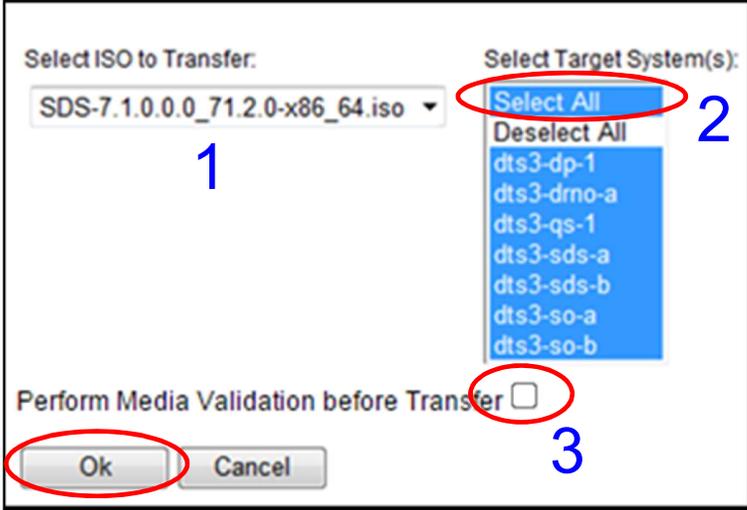
Procedure 2: ISO Administration

Step	Procedure	Result																				
	<ul style="list-style-type: none"> <li>If source release is <b>SDS 5.0</b>, then <b>SKIP</b> to <b>Step 8</b> of this procedure.</li> <li>If source release is <b>SDS 7.x</b>, then continue with <b>Step 5</b> of this procedure.</li> </ul>																					
<p>5.</p> <input type="checkbox"/>	<p><b>SDS 7.x only</b></p> <p><b>Primary SDS NOAM VIP:</b></p> <p>Deploy ISO file to all SDS servers in the entire topology.</p> <ol style="list-style-type: none"> <li>Using the cursor, select the <b>ISO</b> file uploaded in <b>Step 3</b> of this procedure.</li> <li>Click <b>'Deploy ISO'</b> dialogue button.</li> <li>Click <b>'OK'</b> to confirm the ISO deployment.</li> </ol>	 <p><b>Main Menu: Status &amp; Manage -&gt; Files</b></p> <p>Filter Tasks</p> <p>sds1-noA-5011835 sds1-noB-5011836 sds1-qs-5011837 Liberty-SDS-SO-A Liberty-S</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><b>SDS-7.1.0.0.0_71.2.0-x86_64.iso</b></td> <td><b>863.6 MB</b></td> <td><b>iso</b></td> <td><b>2015-02-03 21:28:28 UTC</b></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 <b>Deploy ISO</b></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><b>3</b> OK Cancel</p>	File Name	Size	Type	Timestamp	rsync.log	2.1 KB	log	2015-02-03 00:00:03 UTC	<b>SDS-7.1.0.0.0_71.2.0-x86_64.iso</b>	<b>863.6 MB</b>	<b>iso</b>	<b>2015-02-03 21:28:28 UTC</b>	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>6.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Monitor the ISO deployment status.</p> <ol style="list-style-type: none"> <li>Using the cursor, select the <b>ISO</b> file uploaded in <b>Step 3</b> of this procedure.</li> <li>Click the <b>"View ISO Deployment Report"</b> dialogue button.</li> </ol>	 <p><b>Main Menu: Status &amp; Manage -&gt; Files</b></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><b>isos/SDS-7.1.0.0.0_71.2.0-x86_64.iso</b></td> <td><b>863.6 MB</b></td> <td><b>iso</b></td> <td><b>2015-02-03 21:47:30 UTC</b></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 <b>View ISO Deployment Report</b> 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	<b>isos/SDS-7.1.0.0.0_71.2.0-x86_64.iso</b>	<b>863.6 MB</b>	<b>iso</b>	<b>2015-02-03 21:47:30 UTC</b>	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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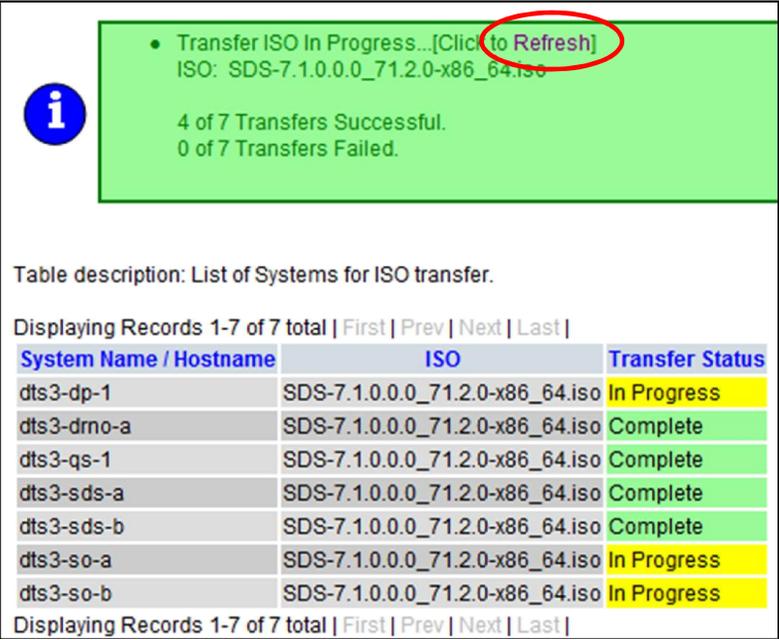
Procedure 2: ISO Administration

Step	Procedure	Result
<p>7.</p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>The user is presented with the <b>ISO Deployment Report</b> indicating the <b>current status</b> of deployment to all servers in the topology.</p> <p><b>Refresh</b> the report by clicking the <b>“Back”</b> dialogue button and repeating <b>Step 6</b> of this procedure until the <b>ISO</b> has been <b>“Deployed”</b> to all servers in the topology.</p> <p><b>NOTE:</b> This completes the ISO Administration procedures for source release 7.x, <b>SKIP</b> the remaining steps of this procedure and exit at this time.</p>	<p><b>Main Menu: Status &amp; Manage -&gt; Files [View]</b></p> 
<p><b>THIS PROCEDURE HAS BEEN COMPLETED (SDS 7.x Source)</b></p>		
<p>8.</p>	<p><b>SDS 5.0 only</b></p> <p><b>Primary SDS NOAM VIP:</b></p> <p>Upload ISO file to the <b>Standby</b> SDS server.</p>	<ul style="list-style-type: none"> <li>Repeat <b>Steps 2 - 4</b> of this procedure to upload <b>ISO</b> file to the <b>“Standby”</b> Primary SDS NOAM server.</li> </ul>
<p>9.</p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>1) Select...</p> <p><b>Main Menu</b>          → <b>Administration</b>          → <b>Software Management</b>          → <b>ISO Deployment</b></p> <p>2) Click on the <b>[ Transfer ISO ]</b> link located in the bottom left quadrant of the right panel.</p>	

Procedure 2: ISO Administration

Step	Procedure	Result
<p>10.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></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 <b>Step 3</b> of this procedure.</p> <p>2) Click “<b>Select All</b>” or hold the [CTRL] key to multi-select individual servers to be upgraded.</p> <p>3) Click on the “<b>Perform Media Validation before transfer</b>” check box.</p> <p>4) Click on the “<b>Ok</b>” dialogue button.</p>	
<p>11.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>If “[<b>Error Code 252</b>] - <b>Validation failed.</b>” was received, then execute <b>Appendix G (Manually Performing ISO Validation)</b> and then continue with <b>Step 12</b>.</p> <p>If no error was received, <b>SKIP</b> to <b>Step 13</b>.</p>	
<p>12.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></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 <b>Step 3</b> of this procedure.</p> <p>2) Click “<b>Select All</b>” or hold the [CTRL] key to multi-select individual servers to be upgraded.</p> <p>3) <b>DO NOT</b> click on the “<b>Perform Media Validation before transfer</b>” check box.</p> <p>4) Click on the “<b>Ok</b>” dialogue button.</p>	

**Procedure 2: ISO Administration**

Step	Procedure	Result																								
<p>13.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>1) The user is presented with the <b>ISO Administration</b> screen.</p> <p>2) The progress of the individual file transfers may be monitored by periodically clicking on the <b>[Click to Refresh]</b> link in the information banner message.</p> <p>3) Continue to monitor the file transfer progress until a <b>“Transfer Status”</b> of <b>“Complete”</b> is received for all selected servers.</p>	 <p>The screenshot shows an information banner with a blue 'i' icon and a green background. It contains a bullet point: "Transfer ISO In Progress... [Click to Refresh] ISO: SDS-7.1.0.0.0_71.2.0-x86_64.iso". Below the banner, it states "4 of 7 Transfers Successful. 0 of 7 Transfers Failed." Below this is a table description: "List of Systems for ISO transfer." and a table with 3 columns: "System Name / Hostname", "ISO", and "Transfer Status". The table lists 7 systems with their respective ISO files and transfer statuses (In Progress or Complete).</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>	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
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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																								
<p><b>THIS PROCEDURE HAS BEEN COMPLETED (SDS 5.0 Source)</b></p>																										

**5.6 Perform Health Check (Post ISO Administration)**

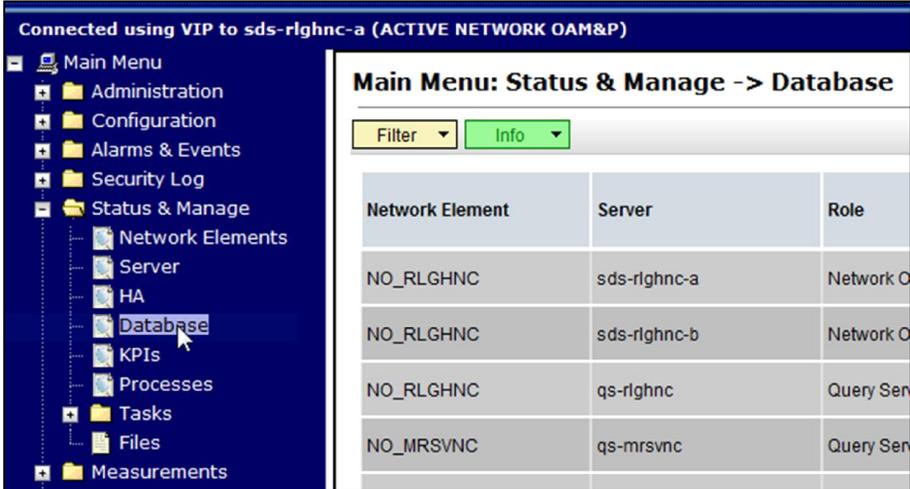
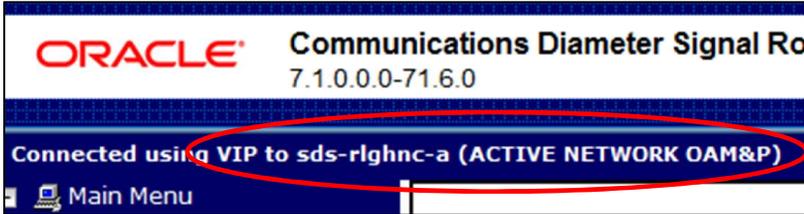
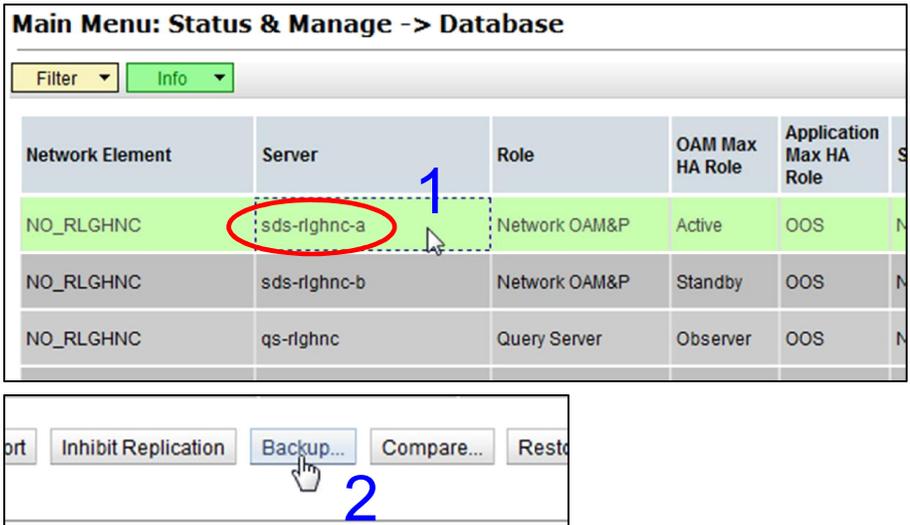
This procedure is part of Software Upgrade Preparation and is used to determine the health and status of the entire SDS network and servers. This may be executed multiple times but must also be executed at least once within the time frame of 24-36 hours prior to the start of a maintenance window.

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

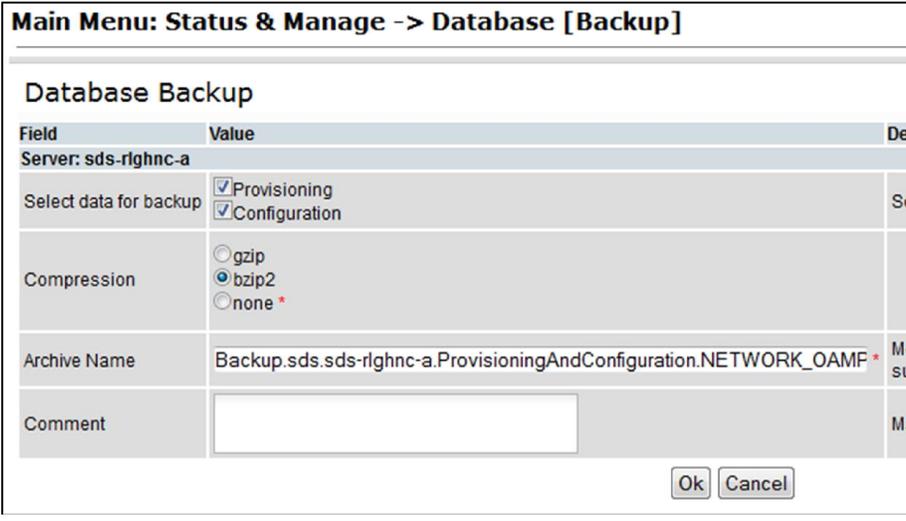
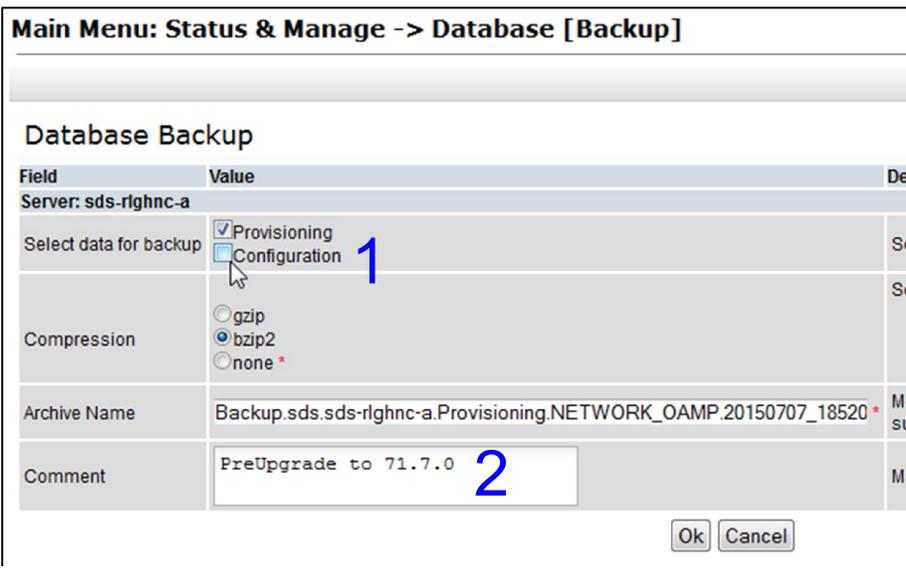
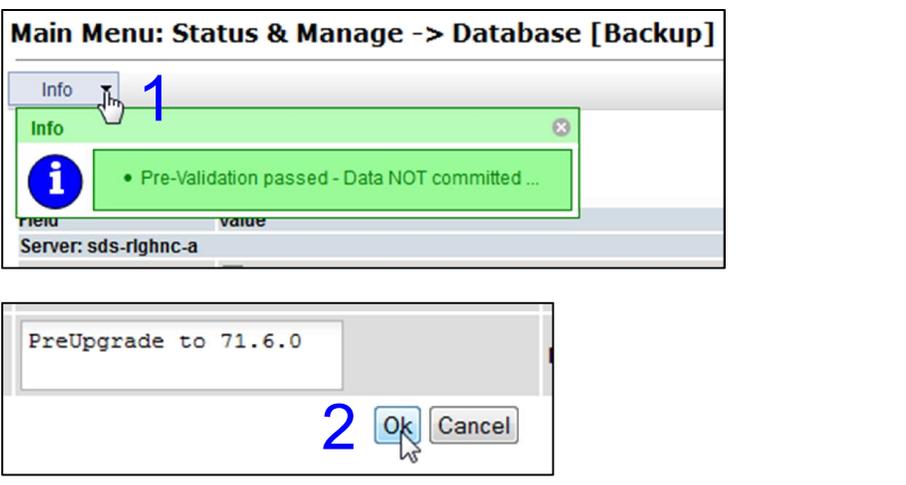
### 5.7 Full Database Backup (PROV & COMCOL ENV for All Servers)

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.

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

Step	Procedure	Result																				
<p>1.</p> <input type="checkbox"/>	<p>Using <b>VIP</b> address, access the <b>Primary SDS NOAM GUI</b>.</p>	<ul style="list-style-type: none"> <li>Use the <b>VIP</b> address to access the <b>Primary SDS NOAM GUI</b> as specified in <b>Appendix A</b>.</li> </ul>																				
<p>2.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b> Select...</p> <p><b>Main Menu</b> → <b>Status &amp; Manage</b> → <b>Database</b></p> <p>...as shown on the right.</p>	 <table border="1"> <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 Ser</td> </tr> <tr> <td>NO_MR5VNC</td> <td>qs-mrsvnc</td> <td>Query Ser</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 Ser	NO_MR5VNC	qs-mrsvnc	Query Ser					
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NO_RLGHNC	sds-rlghnc-b	Network O																				
NO_RLGHNC	qs-rlghnc	Query Ser																				
NO_MR5VNC	qs-mrsvnc	Query Ser																				
<p>3.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b> Verify the name of the Primary <b>Active Network OAM&amp;P</b> SDS server from the GUI banner.</p>																					
<p>4.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>1) Using the cursor, select the Primary <b>Active Network OAM&amp;P</b> SDS server on the <b>[Status &amp; Manage → Database]</b> screen.</p> <p>2) Then click the <b>“Backup...”</b> dialogue button in the bottom of the right panel.</p>	 <table border="1"> <thead> <tr> <th>Network Element</th> <th>Server</th> <th>Role</th> <th>OAM Max HA Role</th> <th>Application Max HA Role</th> </tr> </thead> <tbody> <tr> <td>NO_RLGHNC</td> <td>sds-rlghnc-a</td> <td>Network OAM&amp;P</td> <td>Active</td> <td>OOS</td> </tr> <tr> <td>NO_RLGHNC</td> <td>sds-rlghnc-b</td> <td>Network OAM&amp;P</td> <td>Standby</td> <td>OOS</td> </tr> <tr> <td>NO_RLGHNC</td> <td>qs-rlghnc</td> <td>Query Server</td> <td>Observer</td> <td>OOS</td> </tr> </tbody> </table>	Network Element	Server	Role	OAM Max HA Role	Application Max HA Role	NO_RLGHNC	sds-rlghnc-a	Network OAM&P	Active	OOS	NO_RLGHNC	sds-rlghnc-b	Network OAM&P	Standby	OOS	NO_RLGHNC	qs-rlghnc	Query Server	Observer	OOS
Network Element	Server	Role	OAM Max HA Role	Application Max HA Role																		
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**Procedure 3:** Full Database Backup (PROV & COMCOL ENV for All Servers)

Step	Procedure	Result																		
<p>5.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>The user will be present with the backup form.</p>	 <p><b>Main Menu: Status &amp; Manage -&gt; Database [Backup]</b></p> <p><b>Database Backup</b></p> <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>De</th> </tr> </thead> <tbody> <tr> <td colspan="3">Server: sds-rlghnc-a</td> </tr> <tr> <td>Select data for backup</td> <td><input checked="" type="checkbox"/> Provisioning <input checked="" type="checkbox"/> Configuration</td> <td>Se</td> </tr> <tr> <td>Compression</td> <td><input type="radio"/> gzip <input checked="" type="radio"/> bzip2 <input type="radio"/> none *</td> <td></td> </tr> <tr> <td>Archive Name</td> <td>Backup.sds.sds-rlghnc-a.ProvisioningAndConfiguration.NETWORK_OAMP *</td> <td>M su</td> </tr> <tr> <td>Comment</td> <td><input type="text"/></td> <td>M</td> </tr> </tbody> </table> <p>Ok Cancel</p>	Field	Value	De	Server: sds-rlghnc-a			Select data for backup	<input checked="" type="checkbox"/> Provisioning <input checked="" type="checkbox"/> Configuration	Se	Compression	<input type="radio"/> gzip <input checked="" type="radio"/> bzip2 <input type="radio"/> none *		Archive Name	Backup.sds.sds-rlghnc-a.ProvisioningAndConfiguration.NETWORK_OAMP *	M su	Comment	<input type="text"/>	M
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Comment	<input type="text"/>	M																		
<p>6.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>1) <b>Uncheck the "Configuration" checkbox</b> so that only <b>Provisioning</b> 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><b>Main Menu: Status &amp; Manage -&gt; Database [Backup]</b></p> <p><b>Database Backup</b></p> <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>De</th> </tr> </thead> <tbody> <tr> <td colspan="3">Server: sds-rlghnc-a</td> </tr> <tr> <td>Select data for backup</td> <td><input checked="" type="checkbox"/> Provisioning <input type="checkbox"/> Configuration 1</td> <td>Se</td> </tr> <tr> <td>Compression</td> <td><input type="radio"/> gzip <input checked="" type="radio"/> bzip2 <input type="radio"/> none *</td> <td>Se</td> </tr> <tr> <td>Archive Name</td> <td>Backup.sds.sds-rlghnc-a.Provisioning.NETWORK_OAMP.20150707_18520 *</td> <td>M su</td> </tr> <tr> <td>Comment</td> <td>PreUpgrade to 71.7.0 2</td> <td>M</td> </tr> </tbody> </table> <p>Ok Cancel</p>	Field	Value	De	Server: sds-rlghnc-a			Select data for backup	<input checked="" type="checkbox"/> Provisioning <input type="checkbox"/> Configuration 1	Se	Compression	<input type="radio"/> gzip <input checked="" type="radio"/> bzip2 <input type="radio"/> none *	Se	Archive Name	Backup.sds.sds-rlghnc-a.Provisioning.NETWORK_OAMP.20150707_18520 *	M su	Comment	PreUpgrade to 71.7.0 2	M
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Comment	PreUpgrade to 71.7.0 2	M																		
<p>7.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>1) Click the <b>"Info"</b> tab to verify that the changes have passed <b>Pre-Validation</b>.</p> <p>2) Click <b>"Ok"</b> dialogue button in the bottom of the right panel.</p>	 <p><b>Main Menu: Status &amp; Manage -&gt; Database [Backup]</b></p> <p>Info 1</p> <p>Info</p> <ul style="list-style-type: none"> <li>• Pre-Validation passed - Data NOT committed ...</li> </ul> <p>Server: sds-rlghnc-a</p> <p>PreUpgrade to 71.6.0</p> <p>2 Ok Cancel</p>																		

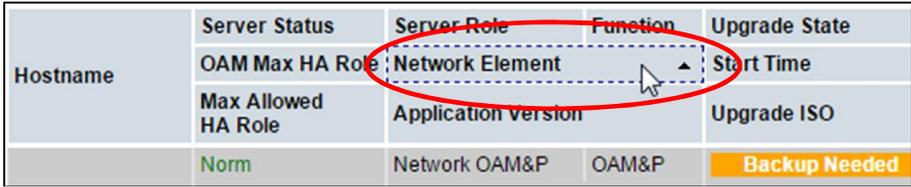
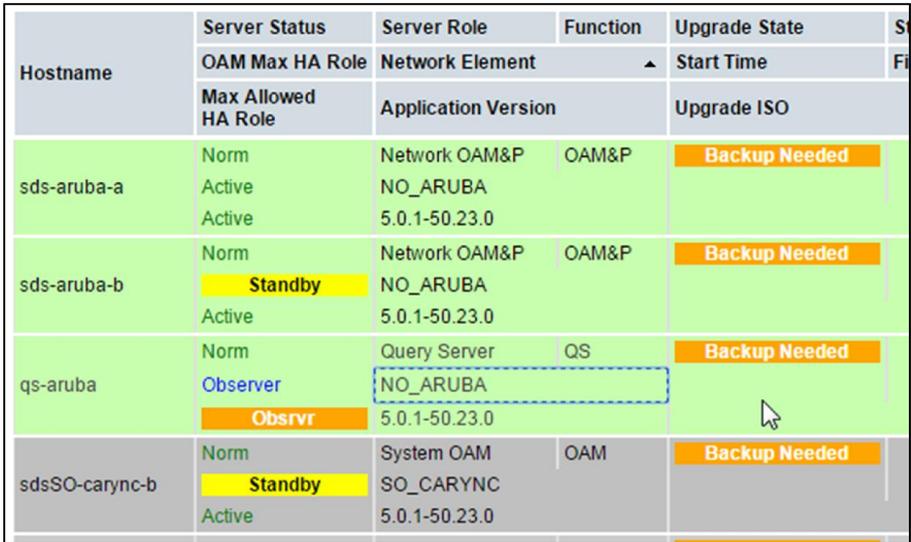
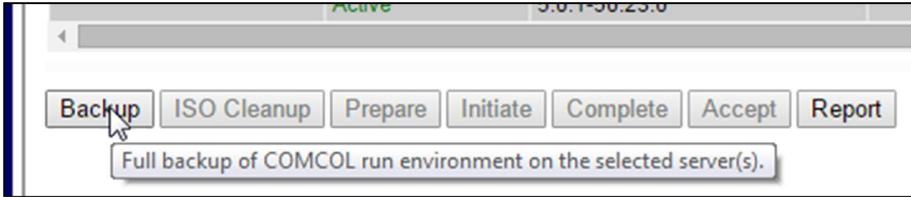
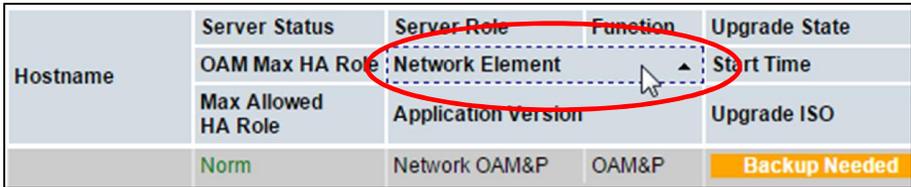
**Procedure 3:** Full Database Backup (PROV & COMCOL ENV for All Servers)

Step	Procedure	Result
8.	<p><b>Primary SDS NOAM VIP:</b></p> <p>Wait for the screen to refresh (≈ 1-2 minutes) then click the “Info” tab to verify that the <b>Provisioning Backup</b> shows a status of <b>MAINT_CMD_SUCCESS</b>.</p> <p>If a status of <b>MAINT_IN_PROGRESS</b> is received, then periodically <b>refresh</b> the Info message by reselecting...</p> <p><b>Main Menu</b>                      → <b>Status &amp; Manage</b>                      → <b>Database</b></p> <p>...then click the “Info” tab again.</p> <p><b>NOTE:</b> This step completes the backup of the SDS Provisioning Database.</p>	

- 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.

9.	<p><b>SDS 5.0 only</b></p> <p><b>Primary SDS NOAM VIP:</b></p> <p>1) Select...</p> <p><b>Main Menu</b>                      → <b>Administration</b>                      → <b>Software Management</b>                      → <b>Upgrade</b></p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <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>Norm Active</td> <td>Network OAM&amp;P</td> <td>OAM&amp;P</td> <td>Backup Needed</td> </tr> <tr> <td>sds-aruba-b</td> <td>Norm Standby Active</td> <td>Network OAM&amp;P</td> <td>OAM&amp;P</td> <td>Backup Needed</td> </tr> </tbody> </table>	Hostname	Server Status	Server Role	Function	Upgrade State	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
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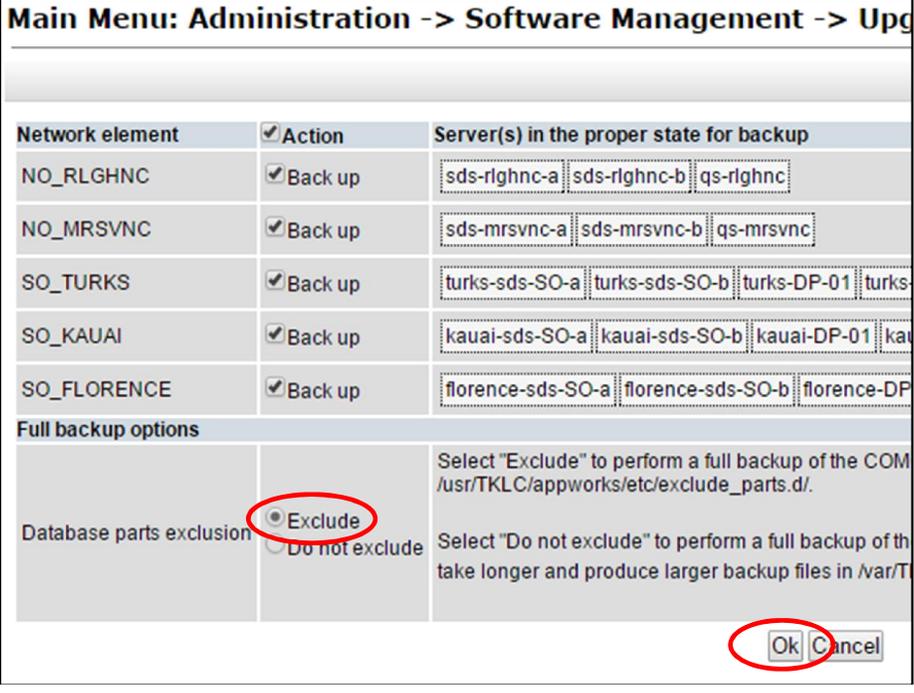
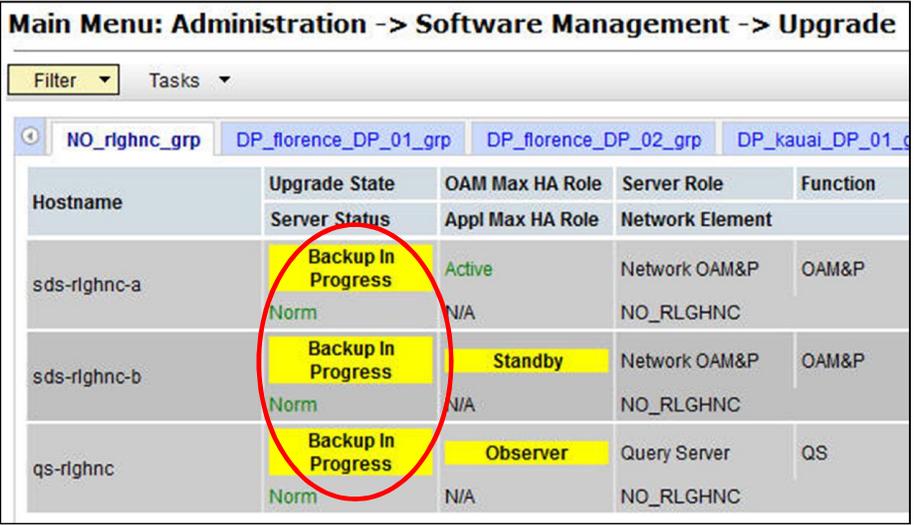
**Procedure 3:** Full Database Backup (PROV & COMCOL ENV for All Servers)

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10. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Using the cursor, click the “<b>Network Element</b>” heading in the right panel to sort the servers by <b>NE</b>.</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>Start Time</td> <td></td> </tr> <tr> <td></td> <td>Max Allowed HA Role</td> <td>Application Version</td> <td>Upgrade ISO</td> <td></td> </tr> <tr> <td></td> <td>Norm</td> <td>Network OAM&amp;P</td> <td>OAM&amp;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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11. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>1) While holding the [CTRL] key, multi-select the rows containing the <b>hostnames</b> of the servers in the <b>Network Element (NE)</b> to be upgraded.</p> <p>2) Verify that the <b>Upgrade State</b> shows “<b>Backup Needed</b>” 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>Start Time</td> <td></td> </tr> <tr> <td></td> <td>Max Allowed HA Role</td> <td>Application Version</td> <td>Upgrade ISO</td> <td></td> </tr> <tr> <td>sds-aruba-a</td> <td>Norm</td> <td>Network OAM&amp;P</td> <td>OAM&amp;P</td> <td>Backup Needed</td> </tr> <tr> <td></td> <td>Active</td> <td>NO_ARUBA</td> <td></td> <td></td> </tr> <tr> <td></td> <td>Active</td> <td>5.0.1-50.23.0</td> <td></td> <td></td> </tr> <tr> <td>sds-aruba-b</td> <td>Norm</td> <td>Network OAM&amp;P</td> <td>OAM&amp;P</td> <td>Backup Needed</td> </tr> <tr> <td></td> <td>Standby</td> <td>NO_ARUBA</td> <td></td> <td></td> </tr> <tr> <td></td> <td>Active</td> <td>5.0.1-50.23.0</td> <td></td> <td></td> </tr> <tr> <td>qs-aruba</td> <td>Norm</td> <td>Query Server</td> <td>QS</td> <td>Backup Needed</td> </tr> <tr> <td></td> <td>Observer</td> <td>NO_ARUBA</td> <td></td> <td></td> </tr> <tr> <td></td> <td>Obsrvr</td> <td>5.0.1-50.23.0</td> <td></td> <td></td> </tr> <tr> <td>sdsSO-carync-b</td> <td>Norm</td> <td>System OAM</td> <td>OAM</td> <td>Backup Needed</td> </tr> <tr> <td></td> <td>Standby</td> <td>SO_CARYNC</td> <td></td> <td></td> </tr> <tr> <td></td> <td>Active</td> <td>5.0.1-50.23.0</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		sds-aruba-a	Norm	Network OAM&P	OAM&P	Backup Needed		Active	NO_ARUBA				Active	5.0.1-50.23.0			sds-aruba-b	Norm	Network OAM&P	OAM&P	Backup Needed		Standby	NO_ARUBA				Active	5.0.1-50.23.0			qs-aruba	Norm	Query Server	QS	Backup Needed		Observer	NO_ARUBA				Obsrvr	5.0.1-50.23.0			sdsSO-carync-b	Norm	System OAM	OAM	Backup Needed		Standby	SO_CARYNC				Active	5.0.1-50.23.0		
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12. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Click the “<b>Backup</b>” 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><b>Primary SDS NOAM VIP:</b></p> <p>1) Wait for the screen to <b>refresh</b> and then once again, click the “<b>Network Element</b>” heading in the right panel to sort the servers by <b>NE</b>.</p> <p>2) Use the vertical scroll bar (if necessary) to locate the rows containing the <b>hostnames</b> of the servers backed up in <b>Step 11</b> 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>Start Time</td> <td></td> </tr> <tr> <td></td> <td>Max Allowed HA Role</td> <td>Application Version</td> <td>Upgrade ISO</td> <td></td> </tr> <tr> <td></td> <td>Norm</td> <td>Network OAM&amp;P</td> <td>OAM&amp;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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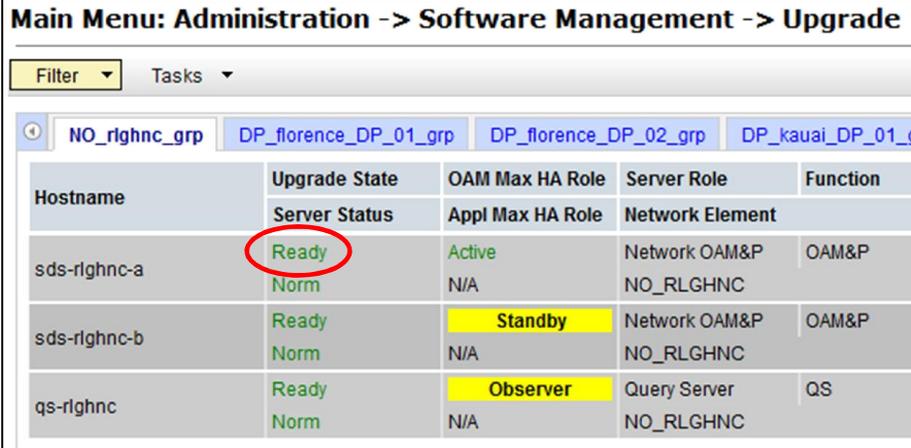
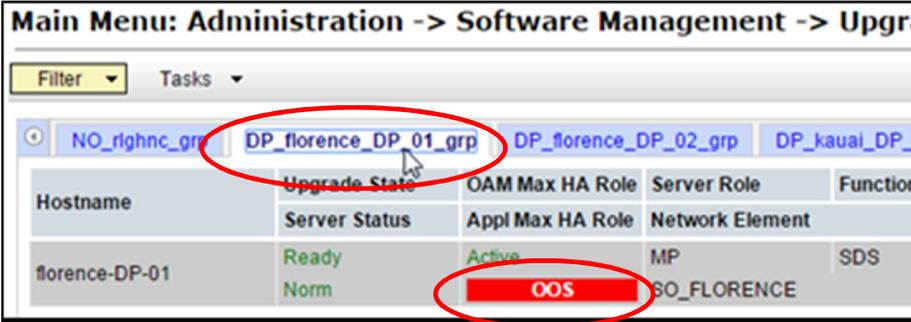
**Procedure 3: Full Database Backup (PROV & COMCOL ENV for All Servers)**

Step	Procedure	Result																																																																																	
<p>14.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>The screen will auto-refresh at this point.</p> <p>Monitor all servers backed up in <b>Step 11</b> of this procedure until the <b>“Upgrade State”</b> changes from <b>“Backup Needed”</b> to <b>“Not Ready”</b>.</p>	<table border="1"> <thead> <tr> <th rowspan="2">Hostname</th> <th>Server Status</th> <th>Server Role</th> <th>Function</th> <th>Upgrade State</th> <th>Start Time</th> </tr> <tr> <th>OAM Max HA Role</th> <th>Network Element</th> <th></th> <th></th> <th></th> </tr> <tr> <th></th> <th>Max Allowed HA Role</th> <th colspan="2">Application Version</th> <th colspan="2">Upgrade ISO</th> </tr> </thead> <tbody> <tr> <td rowspan="3">sds-aruba-a</td> <td>Norm</td> <td>Network OAM&amp;P</td> <td>OAM&amp;P</td> <td>Not Ready</td> <td></td> </tr> <tr> <td>Active</td> <td>NO_ARUBA</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Active</td> <td>5.0.1-50.23.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td rowspan="3">sds-aruba-b</td> <td>Norm</td> <td>Network OAM&amp;P</td> <td>OAM&amp;P</td> <td>Not Ready</td> <td></td> </tr> <tr> <td>Standby</td> <td>NO_ARUBA</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Active</td> <td>5.0.1-50.23.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td rowspan="3">qs-aruba</td> <td>Norm</td> <td>Query Server</td> <td>QS</td> <td>Not Ready</td> <td></td> </tr> <tr> <td>Observer</td> <td>NO_ARUBA</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Obsvr</td> <td>5.0.1-50.23.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td rowspan="3">sdsSO-carync-b</td> <td>Norm</td> <td>System OAM</td> <td>OAM</td> <td>Backup Needed</td> <td></td> </tr> <tr> <td>Standby</td> <td>SO_CARYNC</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Active</td> <td>5.0.1-50.23.0</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Hostname	Server Status	Server Role	Function	Upgrade State	Start Time	OAM Max HA Role	Network Element					Max Allowed HA Role	Application Version		Upgrade ISO		sds-aruba-a	Norm	Network OAM&P	OAM&P	Not Ready		Active	NO_ARUBA				Active	5.0.1-50.23.0				sds-aruba-b	Norm	Network OAM&P	OAM&P	Not Ready		Standby	NO_ARUBA				Active	5.0.1-50.23.0				qs-aruba	Norm	Query Server	QS	Not Ready		Observer	NO_ARUBA				Obsvr	5.0.1-50.23.0				sdsSO-carync-b	Norm	System OAM	OAM	Backup Needed		Standby	SO_CARYNC				Active	5.0.1-50.23.0			
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<p>15.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Execute COMCOL environment backups for the next NE</p> <p><b>NOTE:</b> 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"> <li>Repeat <b>Steps 11 - 14</b> of this procedure (one Network Element at a time), until all servers in the topology display an <b>“Upgrade State”</b> of <b>“Not Ready”</b>.</li> </ul>																																																																																	
<p><b>THIS PROCEDURE HAS BEEN COMPLETED (SDS 5.0 Source)</b></p>																																																																																			
<p>16.</p> <input type="checkbox"/>	<p><b>SDS 7.1 only</b></p> <p><b>Primary SDS NOAM VIP:</b></p> <p>1) Select...</p> <p><b>Main Menu</b>                  → Administration                  → Software Management                  → Upgrade</p> <p>The server <b>“Upgrade State”</b> will show <b>“Backup Needed”</b> at this point.</p> <p>2) In the bottom of the right panel, click the <b>“Backup All”</b> button.</p>	<p><b>Main Menu: Administration -&gt; Software Management -&gt; Upgrade</b></p> <p>Filter Tasks</p> <p>NO_rlgnc_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</td> <td>Active</td> <td>Network OAM&amp;P</td> <td>OAM&amp;P</td> </tr> <tr> <td></td> <td>Norm</td> <td>N/A</td> <td>NO_RLGHNC</td> <td></td> </tr> <tr> <td>sds-rlghnc-b</td> <td>Backup Needed</td> <td>Standby</td> <td>Network OAM&amp;P</td> <td>OAM&amp;P</td> </tr> <tr> <td></td> <td>Norm</td> <td>N/A</td> <td>NO_RLGHNC</td> <td></td> </tr> <tr> <td>qs-rlghnc</td> <td>Backup Needed</td> <td>Observer</td> <td>Query Server</td> <td>QS</td> </tr> <tr> <td></td> <td>Norm</td> <td>N/A</td> <td>NO_RLGHNC</td> <td></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	Active	Network OAM&P	OAM&P		Norm	N/A	NO_RLGHNC		sds-rlghnc-b	Backup Needed	Standby	Network OAM&P	OAM&P		Norm	N/A	NO_RLGHNC		qs-rlghnc	Backup Needed	Observer	Query Server	QS		Norm	N/A	NO_RLGHNC																																										
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**Procedure 3: Full Database Backup (PROV & COMCOL ENV for All Servers)**

Step	Procedure	Result																									
<p>17.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>The user is presented with the <b>Upgrade [Backup All]</b> screen.</p> <p>1) Verify that the <b>“Exclude”</b> radial button is selected.</p> <p>2) Click <b>“Ok”</b> button to begin the backup(s).</p> <p><b>NOTE:</b> 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 <b>“Forced Standby”</b> or <b>“OOS”</b> will not present).</p>	 <p><b>Main Menu: Administration -&gt; Software Management -&gt; Upgrade</b></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   kau-</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><b>Full backup options</b></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/TKLC/</p> <p><input checked="" type="button" value="Ok"/> <input type="button" value="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   kau-	SO_FLORENCE	<input checked="" type="checkbox"/> Back up	florence-sds-SO-a   florence-sds-SO-b   florence-DP-							
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<p>18.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>The user is returned to the <b>Active Primary SDS</b> server tab on the <b>Administration -&gt; Software -&gt; Upgrade</b> screen where the server <b>“Upgrade State”</b> should now show <b>“Backup in Progress”</b> for all servers on that tab.</p>	 <p><b>Main Menu: Administration -&gt; Software Management -&gt; Upgrade</b></p> <p>Filter Tasks</p> <p>NO_rlghnc_grp DP_florence_DP_01_grp DP_florence_DP_02_grp DP_kauai_DP_01_c</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><b>Backup In Progress</b></td> <td>Active</td> <td>Network OAM&amp;P</td> <td>OAM&amp;P</td> </tr> <tr> <td>sds-rlghnc-b</td> <td><b>Backup In Progress</b></td> <td>Standby</td> <td>Network OAM&amp;P</td> <td>OAM&amp;P</td> </tr> <tr> <td>qs-rlghnc</td> <td><b>Backup In Progress</b></td> <td>Observer</td> <td>Query Server</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	<b>Backup In Progress</b>	Active	Network OAM&P	OAM&P	sds-rlghnc-b	<b>Backup In Progress</b>	Standby	Network OAM&P	OAM&P	qs-rlghnc	<b>Backup In Progress</b>	Observer	Query Server	QS
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**Procedure 3:** Full Database Backup (PROV & COMCOL ENV for All Servers)

Step	Procedure	Result																																								
<p>19.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></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><b>NOTE:</b> It can take up to 15 minutes for for COMCOL backup to complete.</p>	 <p><b>Main Menu: Administration -&gt; Software Management -&gt; Upgrade</b></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</td> <td>Active</td> <td>Network OAM&amp;P</td> <td>OAM&amp;P</td> </tr> <tr> <td></td> <td>Norm</td> <td>N/A</td> <td>NO_RLGHNC</td> <td></td> </tr> <tr> <td>sds-rlghnc-b</td> <td>Ready</td> <td>Standby</td> <td>Network OAM&amp;P</td> <td>OAM&amp;P</td> </tr> <tr> <td></td> <td>Norm</td> <td>N/A</td> <td>NO_RLGHNC</td> <td></td> </tr> <tr> <td>qs-rlghnc</td> <td>Ready</td> <td>Observer</td> <td>Query Server</td> <td>QS</td> </tr> <tr> <td></td> <td>Norm</td> <td>N/A</td> <td>NO_RLGHNC</td> <td></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	Active	Network OAM&P	OAM&P		Norm	N/A	NO_RLGHNC		sds-rlghnc-b	Ready	Standby	Network OAM&P	OAM&P		Norm	N/A	NO_RLGHNC		qs-rlghnc	Ready	Observer	Query Server	QS		Norm	N/A	NO_RLGHNC	
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qs-rlghnc	Ready	Observer	Query Server	QS																																						
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<p>20.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></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><b>!! IMPORTANT !!</b></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><b>Main Menu: Administration -&gt; Software Management -&gt; Upgrade</b></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>florence-DP-01</td> <td>Ready</td> <td>Active</td> <td>MP</td> <td>SDS</td> </tr> <tr> <td></td> <td>Norm</td> <td>OOS</td> <td>SO_FLORENCE</td> <td></td> </tr> </tbody> </table>	Hostname	Upgrade State	OAM Max HA Role	Server Role	Function		Server Status	Appl Max HA Role	Network Element		florence-DP-01	Ready	Active	MP	SDS		Norm	OOS	SO_FLORENCE																					
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<p>21.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></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"> <li>Repeat Step 20 of this procedure until all servers in the topology display a server “Upgrade State” value of “Ready”.</li> </ul>																																								
<p style="text-align: center;"><b>THIS PROCEDURE HAS BEEN COMPLETED (SDS 7.x Source)</b></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 K: 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 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 Tekelec Customer Care Center.

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

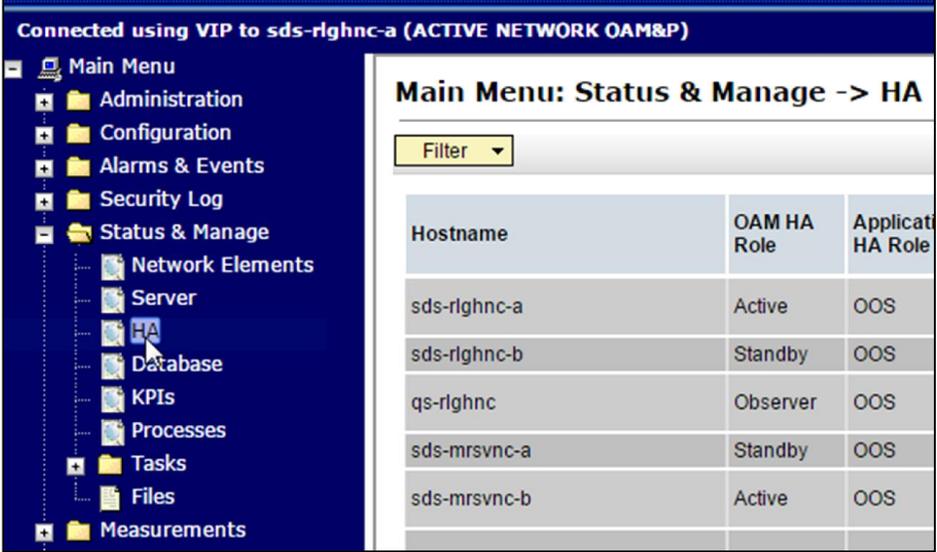
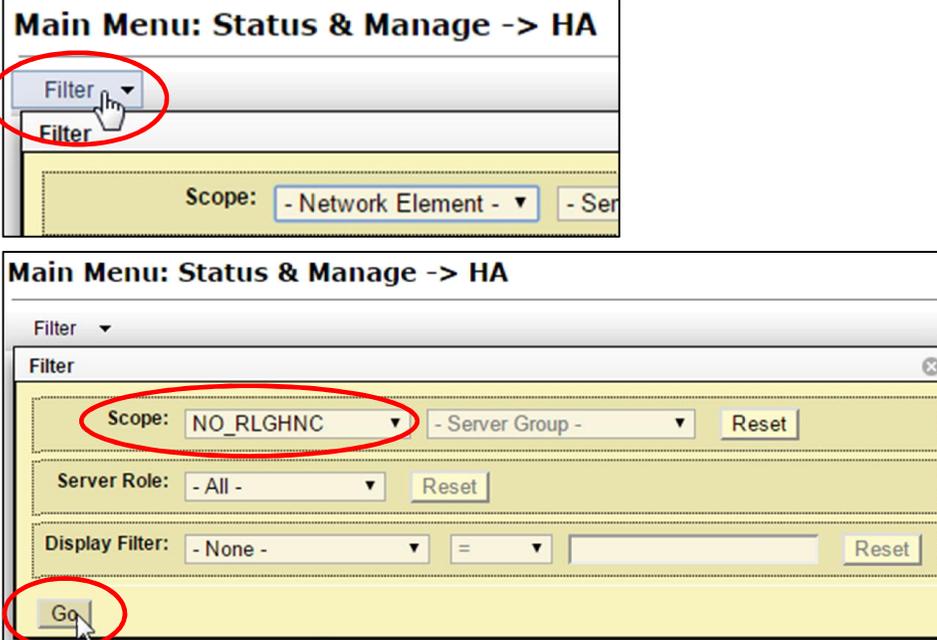
### 6.1 Perform Health Check (Primary/DR NOAM Pre Upgrade)

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.

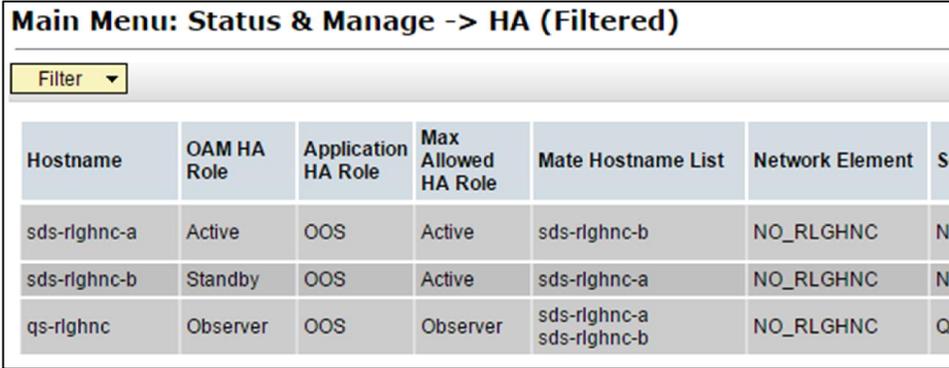
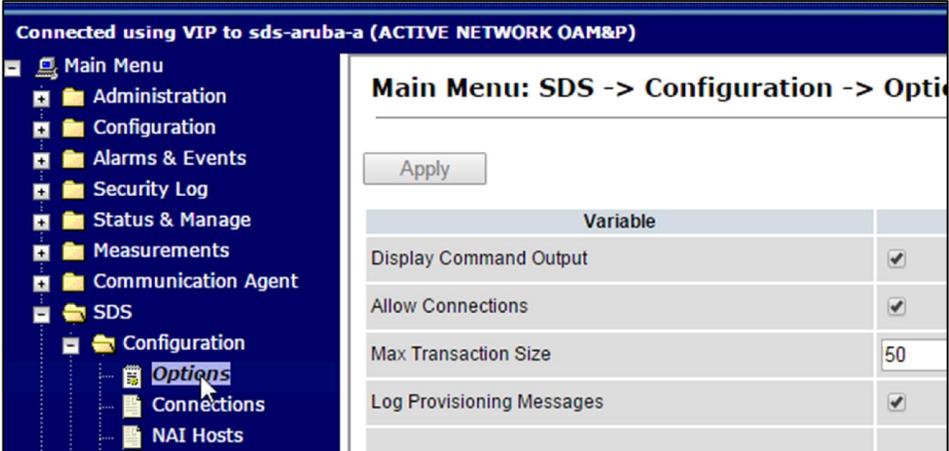
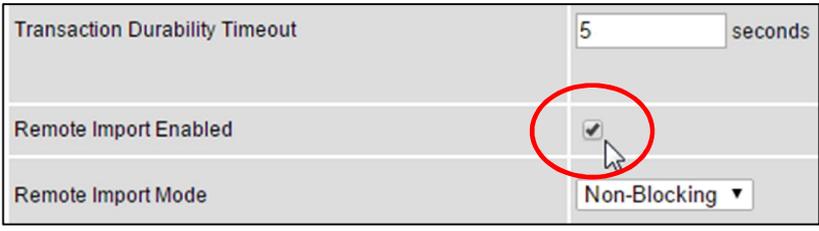
Execute SDS Health Check procedures as specified in **Appendix B**.

## 6.2 Upgrade Primary SDS NOAM NE

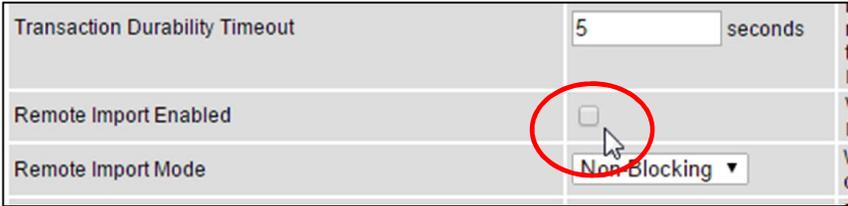
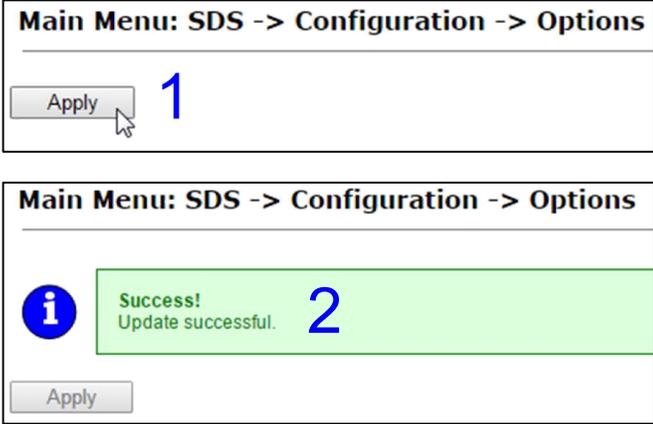
### Procedure 4: Upgrade Primary SDS NOAM NE

Step	Procedure	Result																		
1. <input type="checkbox"/>	Using <b>VIP</b> address, access the <b>Primary SDS NOAM GUI</b> .	<ul style="list-style-type: none"> <li>Using <b>VIP</b> address, access the <b>Primary SDS NOAM GUI</b> as described in <b>Appendix A</b>.</li> </ul>																		
2. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP (GUI):</b></p> <p>Select...</p> <p><b>Main Menu</b> → <b>Status &amp; Manage</b> → <b>HA</b></p> <p>...as shown on the right.</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-rlghnc-a</td> <td>Active</td> <td>OOS</td> </tr> <tr> <td>sds-rlghnc-b</td> <td>Standby</td> <td>OOS</td> </tr> <tr> <td>qs-rlghnc</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-rlghnc-a	Active	OOS	sds-rlghnc-b	Standby	OOS	qs-rlghnc	Observer	OOS	sds-mrsvnc-a	Standby	OOS	sds-mrsvnc-b	Active	OOS
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sds-mrsvnc-b	Active	OOS																		
3. <input type="checkbox"/>	Record the name of the <b>Primary SDS NOAM NE</b> in the space provided.	<p>Using the information provided in <b>Section 3.1.2 (Logins, Passwords and Site Information)</b> record the name of the <b>Primary SDS NE site</b> in the space provided below:</p> <p><b>Primary SDS NOAM NE:</b> _____</p>																		
4. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>1) Click the <b>“Filter”</b> tab in the top left of the right panel.</p> <p>2) Under <b>“Scope”</b> select the <b>Network Element</b> name for the <b>Primary SDS NOAM NE</b>.</p> <p>2) Click on the <b>“Go”</b> dialogue button.</p>																			

Procedure 4: Upgrade Primary SDS NOAM NE

Step	Procedure	Result																												
<p>5.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>The user should be presented with the list of servers associated with the <b>Primary SDS NOAM NE</b></p> <p>Identify each <b>“Hostname”</b>, its <b>“Server Role”</b> and <b>“OAM HA Role”</b>.</p>	 <p><b>Main Menu: Status &amp; Manage -&gt; HA (Filtered)</b></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>O</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	O
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<p>6.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Record the names of <b>Primary SDS NOAM NE</b> servers in the space provided to the right.</p>	<p><input type="checkbox"/> <b>“Active” Primary SDS NOAM:</b> _____</p> <p><input type="checkbox"/> <b>“Standby” Primary SDS NOAM:</b> _____</p> <p><input type="checkbox"/> <b>Primary Query Server (if equipped):</b> _____</p>																												
<p>7.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP (GUI):</b></p> <p>Select...</p> <p><b>Main Menu</b>          → <b>SDS</b>            → <b>Configuration</b>                → <b>Options</b></p> <p>...as shown on the right.</p>	 <p>Connected using VIP to sds-aruba-a (ACTIVE NETWORK OAM&amp;P)</p> <p>Main Menu</p> <ul style="list-style-type: none"> <li>Administration</li> <li>Configuration</li> <li>Alarms &amp; Events</li> <li>Security Log</li> <li>Status &amp; Manage</li> <li>Measurements</li> <li>Communication Agent</li> <li>SDS             <ul style="list-style-type: none"> <li>Configuration                 <ul style="list-style-type: none"> <li><b>Options</b></li> <li>Connections</li> <li>NAI Hosts</li> </ul> </li> </ul> </li> </ul> <p>Main Menu: SDS -&gt; Configuration -&gt; Optio</p> <p>Apply</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><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Locate the <b>“Remote Import Enabled”</b> 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>																												

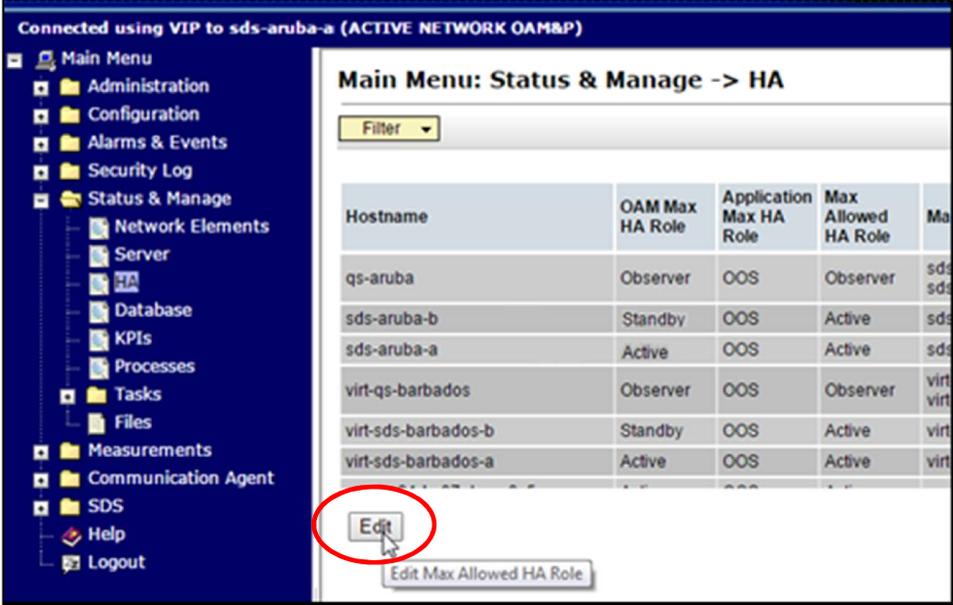
Procedure 4: Upgrade Primary SDS NOAM NE

Step	Procedure	Result
<p>9.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>If the “Remote Import Enabled” checkbox was checked in the previous step, REMOVE the check mark.</p>	
<p>10.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></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="display: flex; align-items: center;">  <ul style="list-style-type: none"> <li>• If source release is <b>SDS 7.x</b>, then <b>SKIP</b> to <b>Step 29</b> of this procedure.</li> <li>• If source release is <b>SDS 5.0</b>, then continue with <b>Step 11</b> of this procedure.</li> </ul> </div>		
<div style="display: flex; align-items: center;">  <p><b>NOTE:</b> <i>Steps 11 and 12 of this Procedure may be executed in parallel.</i></p> </div>		
<p>11.</p> <input type="checkbox"/>	<p><b>SDS 5.0 only</b></p> <p><b>Primary SDS NOAM VIP:</b></p> <p>Upgrade the “Standby” Primary SDS NOAM server.</p>	<ul style="list-style-type: none"> <li>• Upgrade the “Standby” Primary SDS NOAM server (as identified and recorded in <b>Step 6</b> of this Procedure) using <b>Appendix C</b> (<i>Upgrade Server on SDS 5.0</i>).</li> <li>• In <b>Step 6</b> of this Procedure, check-off <input checked="" type="checkbox"/> the associated <b>checkbox</b> as the upgrade is completed for the upgraded “Standby” Primary SDS NOAM server.</li> </ul>
<p>12.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Initiate upgrade for the Primary SDS Query Server</p>	<ul style="list-style-type: none"> <li>• Upgrade <b>Primary Query Server</b> (as identified and recorded in <b>Step 6</b> of this Procedure) using <b>Appendix C</b> (<i>Upgrade Server on SDS 5.0</i>).</li> </ul> <p>In <b>Step 6</b> of this Procedure, check-off <input checked="" type="checkbox"/> the associated <b>checkbox</b> as the upgrade is completed for the upgraded <b>Primary Query Server</b></p>

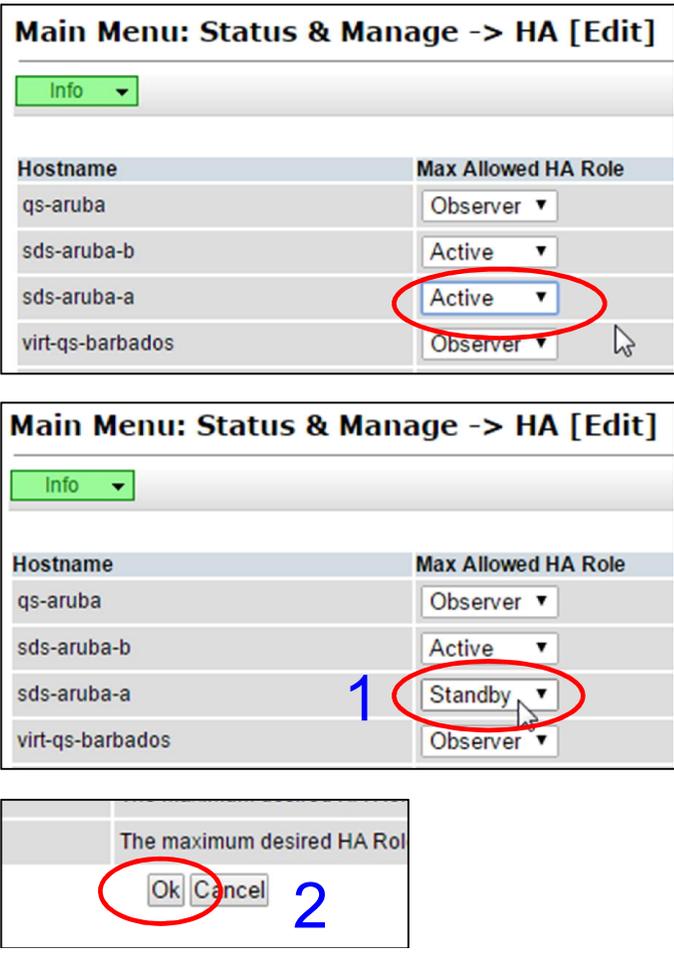
Procedure 4: Upgrade Primary SDS NOAM NE

Step	Procedure	Result
13. <input type="checkbox"/>	<b>Primary SDS NOAM VIP (CLI):</b>  Using the <b>VIP</b> address, login to the <b>“Active” Primary SDS NOAM</b> with the <b>admusr</b> 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: <b>admusr</b> Password: <b>&lt;admusr_password&gt;</b>
14. <input type="checkbox"/>	<b>Primary SDS NOAM VIP:</b>  The user will be presented with output similar to that shown to the right.	<b>*** TRUNCATED OUTPUT ***</b>  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 ~]\$
15. <input type="checkbox"/>	<b>Primary SDS NOAM VIP:</b>  Verify that the <b>DbReplication</b> status is <b>“Active”</b> to the <b>Standby Primary SDS NOAM</b> and the <b>Query Server (if equipped)</b> which were upgraded in <b>Steps 11 and 12</b> of this procedure.	[admusr@sds-rlghnc-a ~]\$ <b>sudo irepstat -w</b> -- Policy 0 ActStb [DbReplication] AA To sds-rlghnc-b <b>Active</b> 0 0.25 1%R 0.05%cpu 47B/s AA To qs-rlghnc <b>Active</b> 0 0.25 1%R 0.05%cpu 56B/s AA To sds-mrsvnc-a <b>Active</b> 0 0.50 1%R 0.04%cpu 47B/s AB To kauai-sds-SO-b <b>Active</b> 0 0.50 1%R 0.04%cpu 63B/s AB To florence-sds-SO-a <b>Active</b> 0 0.51 1%R 0.03%cpu 65B/s AB To turks-sds-SO-b <b>Active</b> 0 0.50 1%R 0.04%cpu 65B/s  irepstat ( 8 lines) (h)elp  [admusr@sds-rlghnc-a ~]\$
16. <input type="checkbox"/>	<b>Primary SDS NOAM VIP:</b>  <b>!! IMPORTANT !!</b>  <b>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).</b>	<ul style="list-style-type: none"> <li>If a DbReplication status of <b>“Audit”</b> was received in the previous step, then <b>REPEAT Step 15</b> of this procedure until a status of <b>“Active”</b> is returned.</li> </ul>
17. <input type="checkbox"/>	<b>Primary SDS NOAM VIP:</b>  Exit the <b>CLI</b> for the <b>“Active” Primary SDS NOAM</b> .	[admusr@sds-rlghnc-a filemgmt]\$ <b>exit</b> logout
18. <input type="checkbox"/>	Using <b>VIP</b> address, access the <b>Primary SDS NOAM GUI</b> .	<ul style="list-style-type: none"> <li>Using <b>VIP</b> address, access the <b>Primary SDS NOAM GUI</b> as described in <b>Appendix A</b>.</li> </ul>

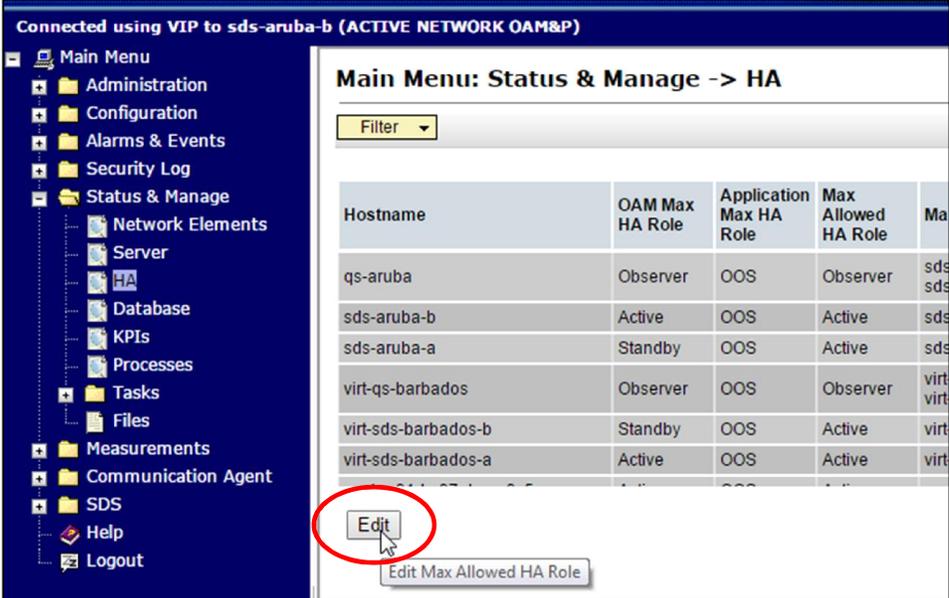
Procedure 4: Upgrade Primary SDS NOAM NE

Step	Procedure	Result																																			
<p>19.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>1) Select...</p> <p><b>Main Menu</b>                      → <b>Status &amp; Manage</b>                      → <b>HA</b></p> <p>...as shown on the right.</p> <p>2) Click on the <b>“Edit”</b> dialogue button.</p>	 <p>The screenshot shows a web interface titled "Connected using VIP to sds-aruba-a (ACTIVE NETWORK OAM&amp;P)". On the left is a "Main Menu" tree with categories like Administration, Configuration, Alarms &amp; Events, Security Log, Status &amp; Manage, Network Elements, Server, HA, Database, KPIs, Processes, Tasks, Files, Measurements, Communication Agent, SDS, Help, and Logout. The "Status &amp; Manage" section is expanded to show "Main Menu: Status &amp; Manage -&gt; HA". This section includes a "Filter" dropdown and a table with the following data:</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>Below the table, an "Edit" button is circled in red, with a tooltip that reads "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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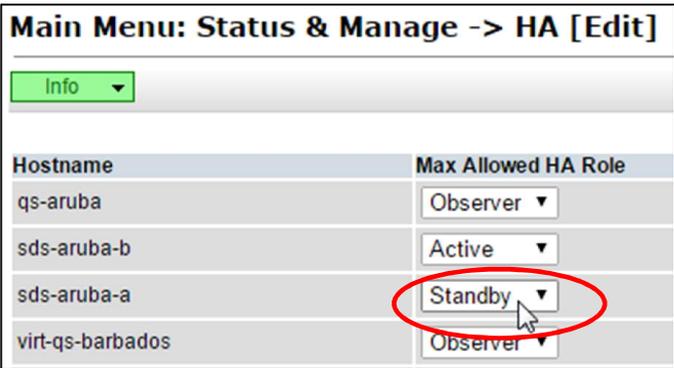
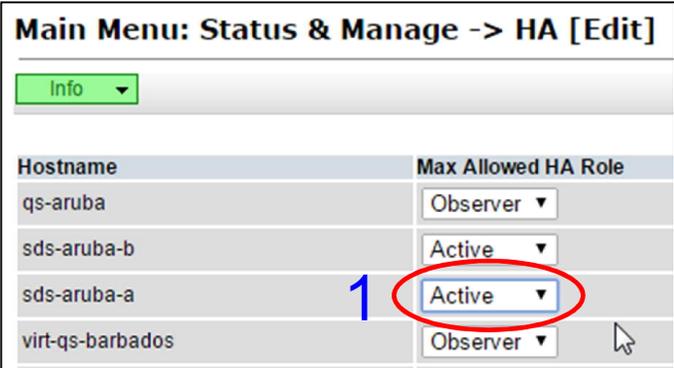
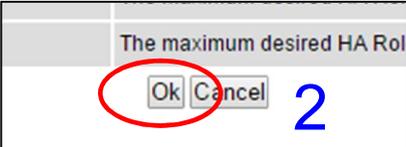
Procedure 4: Upgrade Primary SDS NOAM NE

Step	Procedure	Result
<p>20.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></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>The screenshot shows the 'Main Menu: Status &amp; Manage -&gt; HA [Edit]' interface. It features a table with columns 'Hostname' and 'Max Allowed HA Role'. The rows are: qs-aruba (Observer), sds-aruba-b (Active), sds-aruba-a (Active), and virt-qs-barbados (Observer). A red circle highlights the 'Active' dropdown for 'sds-aruba-a', with a blue '1' next to it. Below this, a dialog box titled 'The maximum desired HA Rol' is shown with 'Ok' and 'Cancel' buttons. The 'Ok' button is circled in red, with a blue '2' next to it.</p>
<p>21.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></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"> <li>The user's GUI session will end as the “Active” Primary SDS Server goes through HA Switchover and becomes the “Standby” server.</li> </ul>
<p>22.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></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>The screenshot shows a blue-themed GUI with the text 'Welcome guiadmin [Logout]'. A hand cursor is pointing at the '[Logout]' link.</p>

Procedure 4: Upgrade Primary SDS NOAM NE

Step	Procedure	Result																																			
<p>23.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP (GUI):</b></p> <p><b>Clear the browser cache.</b></p> <p><b>!! IMPORTANT !!</b></p> <p><b>DO NOT proceed to the next step until the browser cache has been cleared.</b></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"> <li>1) Simultaneously hold down the <b>[Ctrl]</b>, <b>[Shift]</b> and <b>[Delete]</b> keys (<i>most Web browsers</i>).</li> <li>2) Select the appropriate object types to delete from the cache via the pop-up dialog. (e.g. <b>“Temporary Internet Files”</b>, <b>“Cache”</b> or <b>“Cached images and files”</b>, etc.). Other browsers may label these objects differently.</li> <li>3) <b>Clear the cached data.</b></li> </ol>																																			
<p>24.</p> <input type="checkbox"/>	<p>Using VIP address, access the <b>Primary SDS NOAM GUI</b>.</p>	<ul style="list-style-type: none"> <li>• Using <b>VIP</b> address, access the <b>Primary SDS NOAM GUI</b> as described in <b>Appendix A</b>.</li> </ul>																																			
<p>25.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>1) Select...</p> <p><b>Main Menu</b>  <b>→ Status &amp; Manage</b>  <b>→ HA</b></p> <p>...as shown on the right.</p> <p>2) Click on the <b>“Edit”</b> dialogue button.</p>	 <p>The screenshot shows the Primary SDS NOAM GUI interface. On the left is a 'Main Menu' tree with categories like Administration, Configuration, Alarms &amp; Events, Security Log, Status &amp; Manage, Network Elements, Server, HA, Database, KPIs, Processes, Tasks, Files, Measurements, Communication Agent, SDS, Help, and Logout. The 'Status &amp; Manage -&gt; HA' page is displayed on the right, featuring 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, an 'Edit' button is 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><b>Primary SDS NOAM VIP:</b></p> <p>1) Select the “Standby” Primary SDS NOAM server and change a <b>Max Allowed HA Role</b> 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><b>Primary SDS NOAM VIP:</b></p> <p>Verify that the <b>Max Allowed HA Role</b> 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</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> </tbody> </table>	Hostname	OAM Max HA Role	Application Max HA Role	Max Allowed HA Role	Mat	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-
Hostname	OAM Max HA Role	Application Max HA Role	Max Allowed HA Role	Mat																							
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-																							
<p>28.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Initiate upgrade for the “Active” Primary SDS NOAM server.</p>	<ul style="list-style-type: none"> <li>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)</li> <li>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.</li> </ul>																									

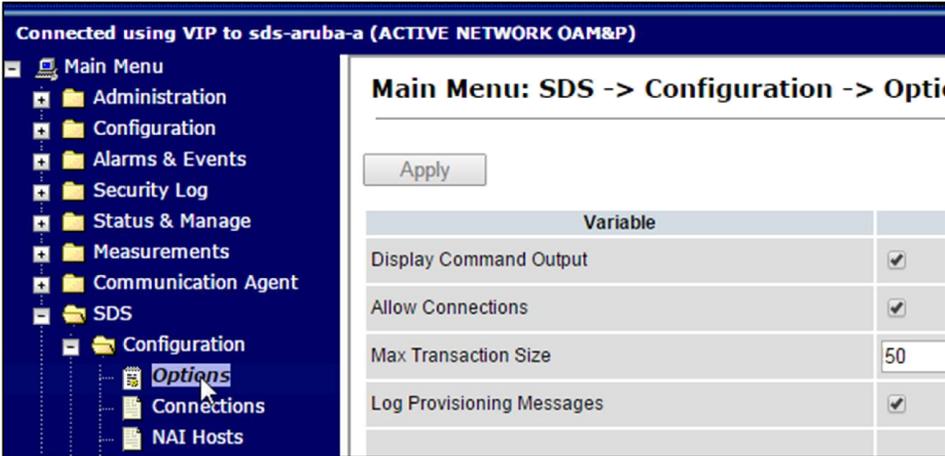
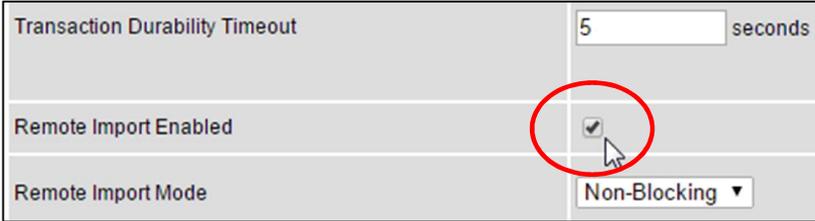
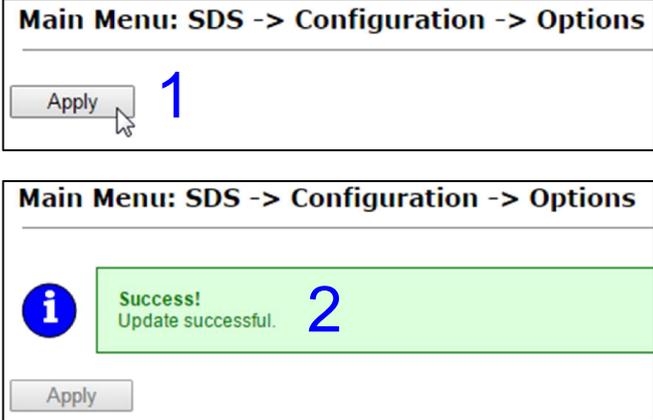
Procedure 4: Upgrade Primary SDS NOAM NE

Step	Procedure	Result
 <ul style="list-style-type: none"> <li>For source release <b>SDS 5.0</b>, <b>SKIP</b> to <b>Step 37</b> of this procedure.</li> </ul>		
 <p><b>NOTE:</b> Steps 29 and 30 of this procedure may be executed in parallel.</p>		
<p>29.</p> <input type="checkbox"/>	<p><b>SDS 7.x only</b></p> <p><b>Primary SDS NOAM VIP:</b></p> <p>Initiate upgrade for the “Standby” Primary SDS NOAM server.</p>	<ul style="list-style-type: none"> <li>Upgrade “Standby” Primary SDS NOAM server (as identified and recorded in Step 6 of this procedure) using Appendix D (Server Upgrade Administration on SDS 7.x).</li> <li>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.</li> </ul>
<p>30.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Initiate upgrade for the Primary Query Server</p>	<ul style="list-style-type: none"> <li>Upgrade Primary Query Server (as identified and recorded in Step 6 of this Procedure) using Appendix D (Server Upgrade Administration on SDS 7.x)</li> <li>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</li> </ul>
<p>31.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP (CLI):</b></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: &lt;admusr_password&gt;</pre>
<p>32.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></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-a ~]\$</pre>

Procedure 4: Upgrade Primary SDS NOAM NE

Step	Procedure	Result
<p>33.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Verify that the <b>DbReplication</b> status is <b>“Active”</b> to the <b>Standby Primary SDS NOAM</b> and the <b>Query Server</b> (if equipped) which were upgraded in <b>Steps 29</b> and <b>30</b> 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>
<p>34.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p><b>!! IMPORTANT !!</b></p> <p><b>DO NOT</b> proceed to the next step until a <b>DbReplication</b> status of <b>“Active”</b> is returned for the <b>Standby Primary SDS NOAM</b> and the <b>Query Server</b> (if equipped).</p>	<p>If a <b>DbReplication</b> status of <b>“Audit”</b> was received in the previous step, then <b>REPEAT Step 33</b> of this procedure until a status of <b>“Active”</b> is returned.</p>
<p>35.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Exit the CLI for the <b>“Active” Primary SDS NOAM</b>.</p>	<pre>[admusr@sds-rlghnc-a filemgmt]\$ exit logout</pre>
<p>36.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Initiate upgrade for the <b>“Active” Primary SDS NOAM</b> server.</p> <p><b>!! IMPORTANT !!</b></p> <p><i>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.</i></p>	<ul style="list-style-type: none"> <li>Upgrade <b>“Active” Primary SDS NOAM</b> server (as identified and recorded in <b>Step 6</b> of this Procedure) using <b>Appendix D (Server Upgrade Administration on SDS 7.x)</b></li> <li>In <b>Step 6</b> of this Procedure, check-off <input checked="" type="checkbox"/> the associated <b>check box</b> as the upgrade is completed for the upgraded <b>“Active” Primary SDS NOAM</b> server.</li> </ul>
<p>37.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Re-Enable Provisioning <b>Remote Import</b> (if applicable).</p>	<ul style="list-style-type: none"> <li>If the <b>“Remote Import Enabled”</b> checkbox recorded in <b>Step 8</b> of this procedure was <b>CHECKED</b>, then continue with <b>Step 38</b> below.</li> <li>If the <b>“Remote Import Enabled”</b> checkbox recorded in <b>Step 8</b> of this procedure was <b>NOT CHECKED</b>, then <b>Procedure 4 (Upgrade Primary SDS NOAM NE)</b> has been <b>COMPLETED</b>. <b>SKIP</b> the remaining steps of this procedure and <b>EXIT</b> at this time.</li> </ul>

Procedure 4: Upgrade Primary SDS NOAM NE

Step	Procedure	Result
<p>38.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP (GUI):</b></p> <p>Select...</p> <p><b>Main Menu</b>                      → SDS                      → Configuration                      → Options</p> <p>...as shown on the right.</p>	
<p>39.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Locate the “Remote Import Enabled” checkbox and make sure that it is checked (<i>ADD the check mark if necessary</i>).</p>	
<p>40.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>If the <b>Check mark</b> was <b>ADDED</b> to the “Remote Import Enabled” checkbox in the previous step, then execute the following:</p> <ol style="list-style-type: none"> <li>1) Click the “Apply” dialogue box in the top left of the right panel.</li> <li>2) Verify that a “Success!” response is received in the banner.</li> </ol>	
<p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>		

### 6.3 Upgrade DR SDS NOAM NE

**Procedure 5:** Upgrade DR SDS NOAM NE

Step	Procedure	Result																												
1. <input type="checkbox"/>	Using <b>VIP</b> address, access the Primary SDS GUI.	<ul style="list-style-type: none"> <li>Using VIP address, access the Primary SDS GUI as described in Appendix A.</li> </ul>																												
2. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b> → <b>Status &amp; Manage</b> → <b>HA</b></p> <p>...as shown on the right.</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> </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	Application HA Role	Max Allowed HA Role	Mate Hostname 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	Application HA Role	Max Allowed HA Role	Mate Hostname 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 <b>DR SDS NE site</b> 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 <b>DR SDS NE site</b> in the space provided below:</p> <p><b>DR SDS NE site:</b> _____</p>																												
4. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>1) From the “<b>Scope</b>” filter pull-down, select the Network Element name for the <b>DR SDS NE site</b></p> <p>2) Click on the “<b>Go</b>” dialogue button located on the right end of the filter bar.</p>																													
5. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>The user should be presented with the list of servers associated with the <b>DR SDS NE site</b></p> <p>Identify each “<b>Server</b>”, its “<b>Server Role</b>” and “<b>OAM HA Role</b>”</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&amp;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&amp;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
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dts3-qs-1	Observer	OOS	Observer	dts3-sds-a dts3-sds-b	sds_noamp	Query Server																								

**Procedure 5: Upgrade DR SDS NOAM NE**

Step	Procedure	Result
<p>6.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Record the names of <b>DR SDS NE site</b> servers appropriately in the space provided to the right.</p>	<ul style="list-style-type: none"> <li>• Record the names of <b>DR SDS NE site</b> servers</li> <li><input type="checkbox"/> <b>DR SDS Active Server:</b> _____</li> <li><input type="checkbox"/> <b>DR SDS Standby Server:</b> _____</li> <li><input type="checkbox"/> <b>DR SDS Query Server:</b> _____</li> </ul>
<div style="display: flex; align-items: center;">  <p><b>NOTE:</b> Steps 7 and 8 of this procedure may be executed in parallel using the “Upgrade Server” option or the user may choose Server Group “Auto Upgrade” to automate Steps 7 - 9 of this procedure.</p> </div>		
<p>7.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Upgrade <b>DR Query Server</b></p>	<ul style="list-style-type: none"> <li>• Upgrade <b>DR Query Server</b> (as identified and recorded in <b>Step 6</b> of this Procedure) using <b>Appendix D</b> (<i>Server Upgrade Administration on SDS 7.x</i>).</li> <li>• In <b>Step 6</b> of this Procedure, check-off <input checked="" type="checkbox"/> the associated <b>checkbox</b> as the upgrade is completed for the upgraded <b>DR Query Server</b>.</li> </ul>
<p>8.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Upgrade “<b>Standby</b>” <b>DR SDS NOAM</b> server.</p>	<ul style="list-style-type: none"> <li>• Upgrade “<b>Standby</b>” <b>DR SDS NOAM</b> server (as identified and recorded in <b>Step 6</b> of this Procedure) using <b>Appendix D</b> (<i>Server Upgrade Administration on SDS 7.x</i>).</li> <li>• In <b>Step 6</b> of this Procedure, check-off <input checked="" type="checkbox"/> the associated <b>checkbox</b> as the upgrade is completed for the upgraded “<b>Standby</b>” <b>DR SDS NOAM</b> server.</li> </ul>
<p>9.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Upgrade the “<b>Active</b>” <b>DR SDS NOAM</b> server.</p> <p><b>NOTE:</b> This will cause an HA activity failover to the mate DR SDS NOAM server.</p>	<ul style="list-style-type: none"> <li>• Upgrade the “<b>Active</b>” <b>DR SDS NOAM</b> server (as identified and recorded in <b>Step 6</b> of this Procedure) using <b>Appendix D</b> (<i>Server Upgrade Administration on SDS 7.x</i>).</li> <li>• In <b>Step 6</b> of this Procedure, check-off <input checked="" type="checkbox"/> the associated <b>checkbox</b> as the upgrade is completed for the upgraded “<b>Active</b>” <b>DR SDS NOAM</b> server.</li> </ul>
<p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>		

**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 K: 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

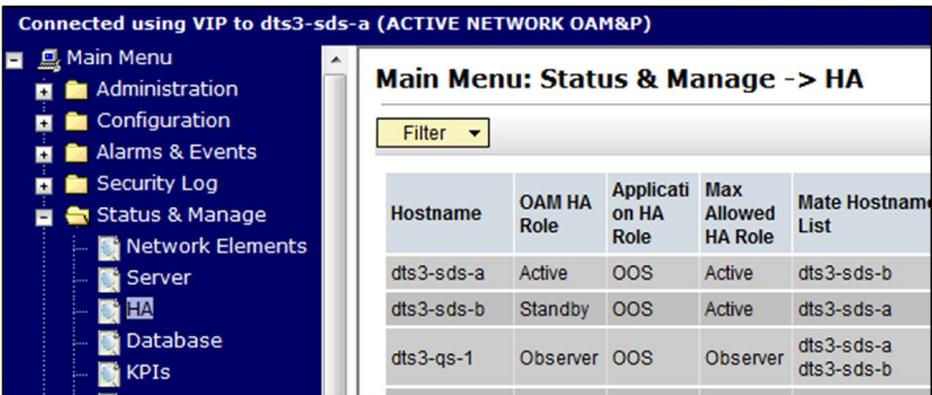
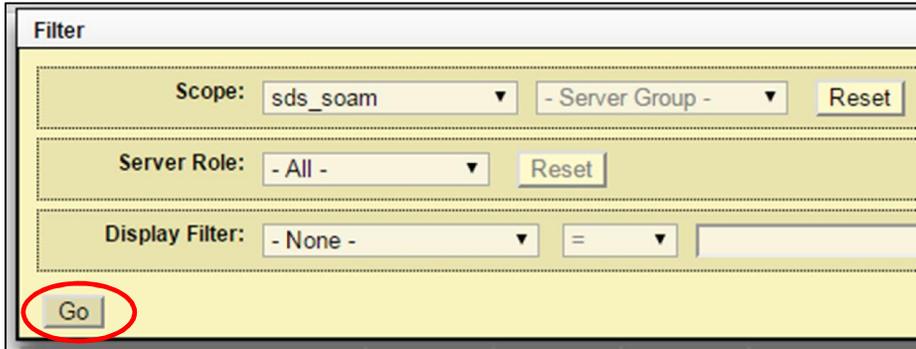
The following procedure details how to upgrade SDS SOAM sites.



**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**.

### Procedure 6: Upgrade SOAM NE

Step	Procedure	Result
1. <input type="checkbox"/>	Using <b>VIP</b> address, access the Primary SDS GUI.	<ul style="list-style-type: none"> <li>Using VIP address, access the Primary SDS GUI as described in Appendix A.</li> </ul>
2. <input type="checkbox"/>	Record the name of the <b>SOAM NE site</b> in the space provided to the right.	Using the information provided in Section 3.1.2 (Logins, Passwords and Site Information) record the name of the <b>SOAM NE site</b> in the space provided below:  <b>SOAM NE site:</b> _____
3. <input type="checkbox"/>	<b>Primary SDS NOAM VIP (GUI):</b> Select...  <b>Main Menu</b> → <b>Status &amp; Manage</b> → <b>HA</b>  ...as shown on the right.	
4. <input type="checkbox"/>	<b>Primary SDS NOAM VIP:</b> 1) From the “Scope” filter pull-down, select the <b>Network Element</b> name for the <b>SOAM NE site</b>  2) Click on the “Go” dialogue button	

**Procedure 6: Upgrade SOAM NE**

Step	Procedure	Result																												
<p>5.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>The user should be presented with the list of servers associated with the <b>SOAM NE site</b></p> <p>Identify “<b>Hostname</b>”, its “<b>Server Role</b>” and “<b>OAM HA Role</b>”</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><b>Primary SDS NOAM VIP:</b></p> <p>Record the names of <b>SOAM NE site</b> servers in the space provided.</p>	<p><input type="checkbox"/> <b>Active SOAM Server:</b> _____</p> <p><input type="checkbox"/> <b>Standby SOAM Server:</b> _____</p> <p><input type="checkbox"/> <b>DP-1 Server:</b> _____      <input type="checkbox"/> <b>DP-6 Server:</b> _____</p> <p><input type="checkbox"/> <b>DP-2 Server:</b> _____      <input type="checkbox"/> <b>DP-7 Server:</b> _____</p> <p><input type="checkbox"/> <b>DP-3 Server:</b> _____      <input type="checkbox"/> <b>DP-8 Server:</b> _____</p> <p><input type="checkbox"/> <b>DP-4 Server:</b> _____      <input type="checkbox"/> <b>DP-9 Server:</b> _____</p> <p><input type="checkbox"/> <b>DP-5 Server:</b> _____      <input type="checkbox"/> <b>DP-10 Server:</b> _____</p>																												
 <p><b>NOTE:</b> 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>																														
<p>7.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Upgrade the “<b>Standby</b>” <b>SOAM</b> server.</p> <p><i><b>NOTE:</b> If using the “Auto Upgrade” option, SOAM servers shall be upgraded serially (Standby then Active).</i></p>	<ul style="list-style-type: none"> <li>Upgrade the “<b>Standby</b>” <b>SOAM</b> server (as identified and recorded in <b>Step 6</b> of this Procedure) using <b>Appendix D</b> (<i>Server Upgrade Administration on SDS 7.x</i>).</li> <li>In <b>Step 6</b> of this Procedure, check-off <input checked="" type="checkbox"/> the associated <b>checkbox</b> as the upgrade is completed for the upgraded “<b>Standby</b>” <b>SOAM</b> server.</li> </ul>																												
<p>8.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Upgrade the “<b>Active</b>” <b>SOAM</b> server.</p>	<ul style="list-style-type: none"> <li>Upgrade the “<b>Active</b>” <b>SOAM</b> server (as identified and recorded in <b>Step 6</b> of this Procedure) using <b>Appendix D</b> (<i>Server Upgrade Administration on SDS 7.x</i>).</li> <li>In <b>Step 6</b> of this Procedure, check-off <input checked="" type="checkbox"/> the associated <b>checkbox</b> as the upgrade is completed for the upgraded “<b>Active</b>” <b>SOAM</b> server.</li> </ul>																												
 <p><b>NOTE:</b> 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>																														

**Procedure 6: Upgrade SOAM NE**

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

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.

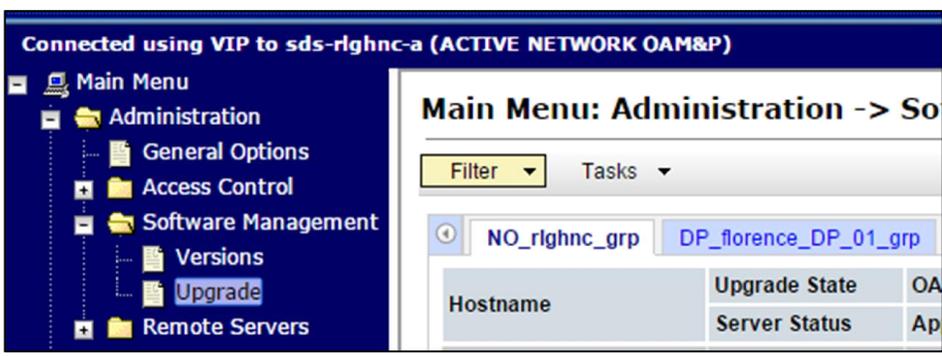
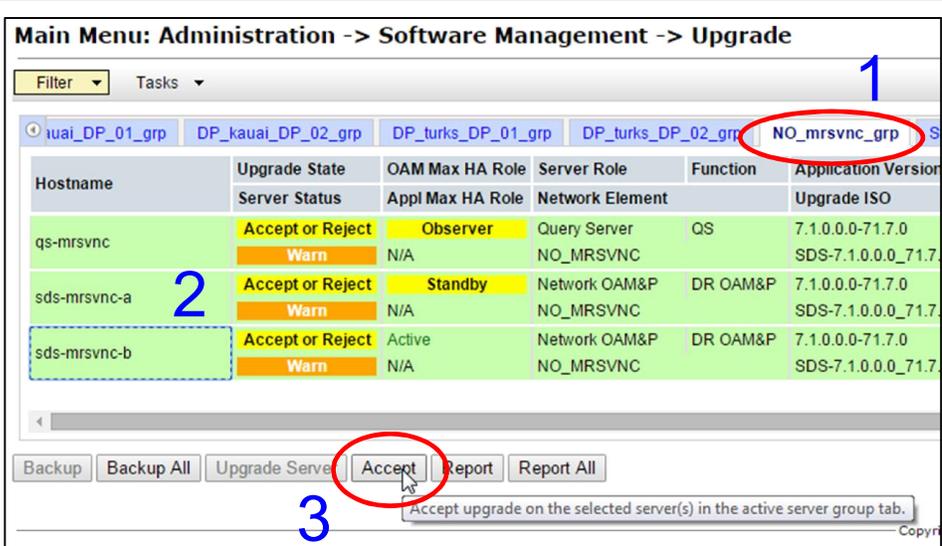


An upgrade should be **Accepted** only after all servers in the **SDS** topology have successfully completed upgrade to the target release.

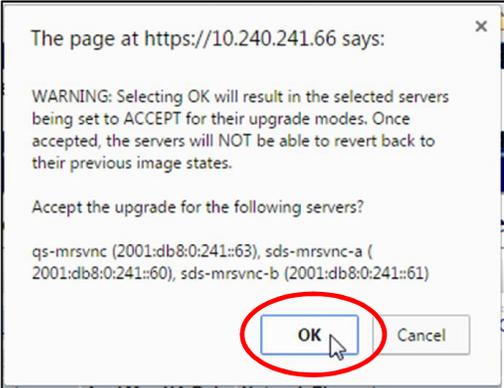
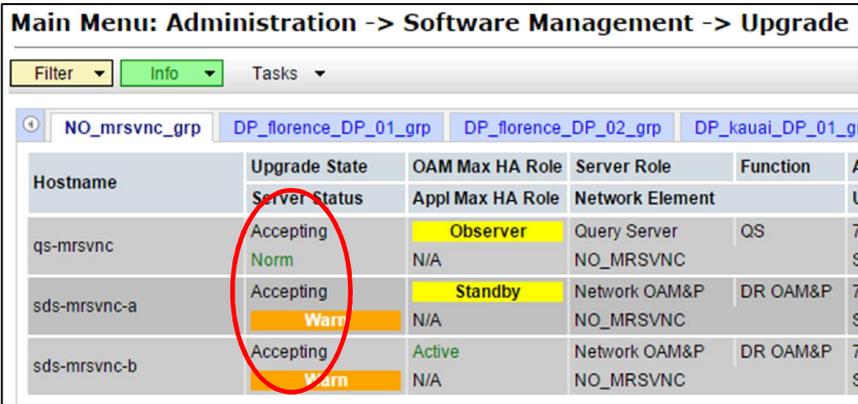
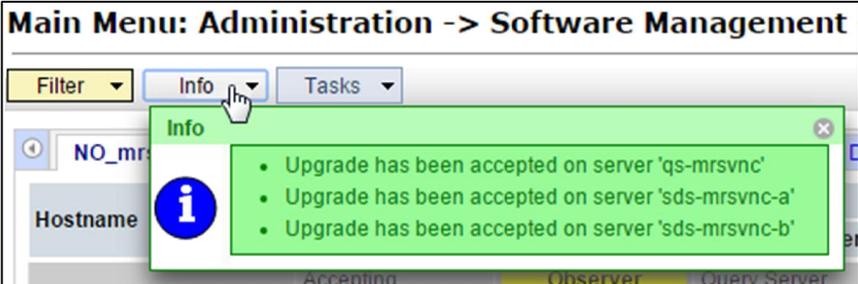
The user should also be aware that **Upgrade Acceptance prevents any possibility of backout to the previous release!!!**

**STOP !**

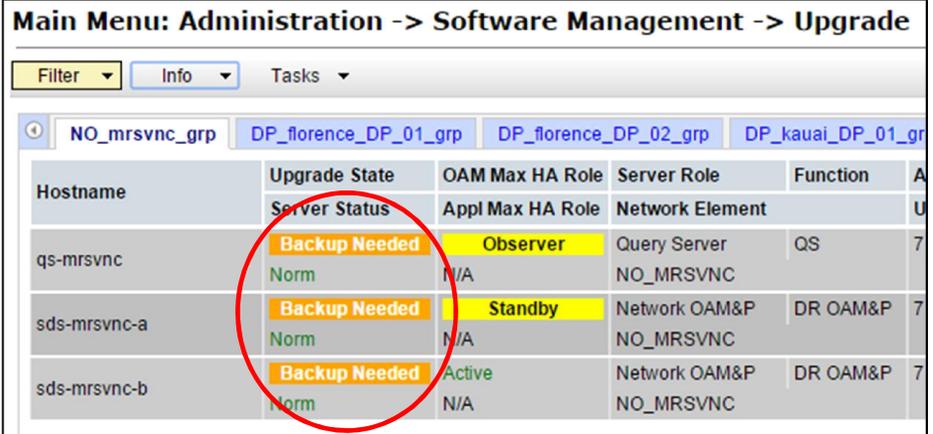
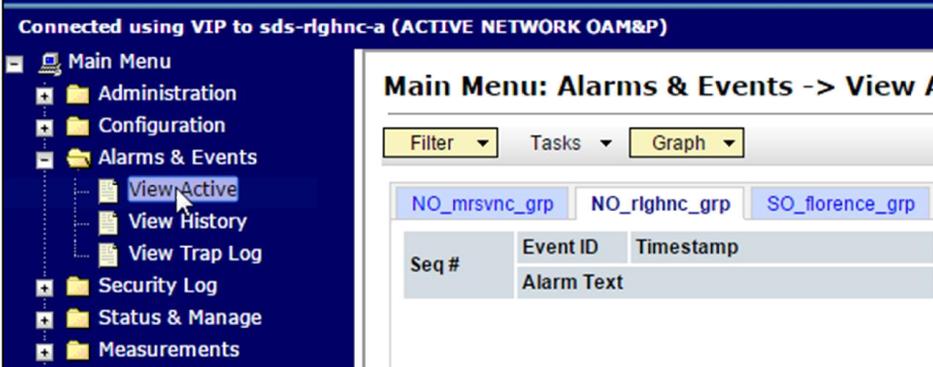
### Procedure 7: Upgrade Acceptance

Step	Procedure	Result
1. <input type="checkbox"/>	Using <b>VIP</b> address, access the Primary SDS GUI.	<ul style="list-style-type: none"> <li>Using VIP address, access the Primary SDS GUI as described in Appendix A.</li> </ul>
2. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP (GUI):</b></p> <p>Select...</p> <p><b>Main Menu</b> → <b>Administration</b> → <b>Software Management</b> → <b>Upgrade</b></p> <p>...as shown on the right.</p>	
3. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>1) Select the <b>Server Group</b> tab containing the server(s) to “<b>Accept</b>” upgrade.</p> <p>2) Hold down the <b>[CTRL]</b> key to <b>multi-select</b> the server(s) all server(s) in the Server Group.</p> <p>3) Click the “<b>Accept</b>” button.</p>	

Procedure 7: Upgrade Acceptance

Step	Procedure	Result																									
<p>4.</p>	<p><b>Primary SDS NOAM VIP:</b></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><b>Main Menu: Administration -&gt; Software Management -&gt; Upgrade</b></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&amp;P</td> <td>DR OAM&amp;P</td> </tr> <tr> <td>sds-mrsvnc-b</td> <td>Accepting Warn</td> <td>Active</td> <td>Network OAM&amp;P</td> <td>DR OAM&amp;P</td> </tr> </tbody> </table>  <p><b>Main Menu: Administration -&gt; Software Management</b></p> <p>Filter Info Tasks</p> <p>NO_mrsvnc</p> <p>Info</p> <ul style="list-style-type: none"> <li>Upgrade has been accepted on server 'qs-mrsvnc'</li> <li>Upgrade has been accepted on server 'sds-mrsvnc-a'</li> <li>Upgrade has been accepted on server 'sds-mrsvnc-b'</li> </ul>	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
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sds-mrsvnc-b	Accepting Warn	Active	Network OAM&P	DR OAM&P																							

Procedure 7: Upgrade Acceptance

Step	Procedure	Result																																																
<p>5.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Within a few minutes, the screen will refresh and display an “Upgrade State” of “Backup Needed”.</p> <p><b>!! IMPORTANT !!</b></p> <p>The “Backup Needed” Upgrade State is expected to remain until the next Software Upgrade is performed. <b>DO NOT re-run COMCOL backups except when directed to do so during the Upgrade process.</b></p>	 <p><b>Main Menu: Administration -&gt; Software Management -&gt; Upgrade</b></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>A</th> </tr> <tr> <th></th> <th>Server Status</th> <th>Appl Max HA Role</th> <th>Network Element</th> <th></th> <th>U</th> </tr> </thead> <tbody> <tr> <td>qs-mrsvnc</td> <td>Backup Needed</td> <td>Observer</td> <td>Query Server</td> <td>QS</td> <td>7</td> </tr> <tr> <td>sds-mrsvnc-a</td> <td>Backup Needed</td> <td>Standby</td> <td>Network OAM&amp;P</td> <td>DR OAM&amp;P</td> <td>7</td> </tr> <tr> <td>sds-mrsvnc-b</td> <td>Backup Needed</td> <td>Active</td> <td>Network OAM&amp;P</td> <td>DR OAM&amp;P</td> <td>7</td> </tr> <tr> <td></td> <td>Norm</td> <td>N/A</td> <td>NO_MRSVNC</td> <td></td> <td></td> </tr> <tr> <td></td> <td>Norm</td> <td>N/A</td> <td>NO_MRSVNC</td> <td></td> <td></td> </tr> <tr> <td></td> <td>Norm</td> <td>N/A</td> <td>NO_MRSVNC</td> <td></td> <td></td> </tr> </tbody> </table>	Hostname	Upgrade State	OAM Max HA Role	Server Role	Function	A		Server Status	Appl Max HA Role	Network Element		U	qs-mrsvnc	Backup Needed	Observer	Query Server	QS	7	sds-mrsvnc-a	Backup Needed	Standby	Network OAM&P	DR OAM&P	7	sds-mrsvnc-b	Backup Needed	Active	Network OAM&P	DR OAM&P	7		Norm	N/A	NO_MRSVNC				Norm	N/A	NO_MRSVNC				Norm	N/A	NO_MRSVNC		
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<p>6.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>“Accept” Upgrade on each remaining Server Group.</p>	<ul style="list-style-type: none"> <li>Repeat <b>Steps 3 - 5</b> of this procedure for each additional <b>Server Group</b> tab until Upgrade has been Accepted on all servers in the SDS topology.</li> </ul>																																																
<p>7.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b> → Alarms &amp; Events → View Active</p> <p>...as shown on the right.</p>	 <p><b>Connected using VIP to sds-rlghnc-a (ACTIVE NETWORK OAM&amp;P)</b></p> <p><b>Main Menu: Alarms &amp; Events -&gt; View Active</b></p> <table border="1"> <thead> <tr> <th>Seq #</th> <th>Event ID</th> <th>Timestamp</th> <th>Alarm Text</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Seq #	Event ID	Timestamp	Alarm Text																																												
Seq #	Event ID	Timestamp	Alarm Text																																															
<p>8.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Verify Upgrade Acceptance.</p>	<p>Verify that the following Alarm is no longer present for any server in the <b>SDS</b> topology.</p> <ul style="list-style-type: none"> <li><b>Event ID (s): 32532 (Server Upgrade Pending Accept/Reject)</b></li> </ul>																																																
<p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></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"> <li>Do not attempt to perform these backout procedures without first contacting My Oracle Support (MOS).</li> </ul>
!! WARNING !!	<p><b>NOTE:</b> Refer to <b>Appendix K: Accessing My Oracle Support (MOS)</b> for information on contacting MOS.</p>
	<ul style="list-style-type: none"> <li>Backout procedures will cause traffic loss!</li> </ul>
!! WARNING !!	<p><b>NOTE:</b> 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).</p>
	<p><b>Backout of an initial installation is not supported!</b></p>

### 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

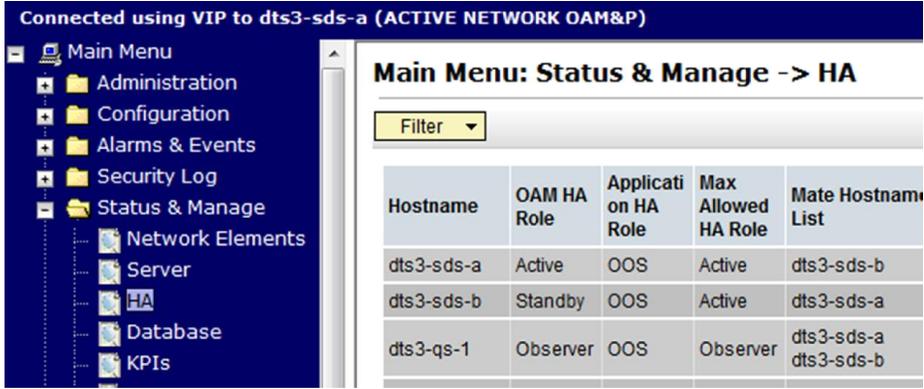
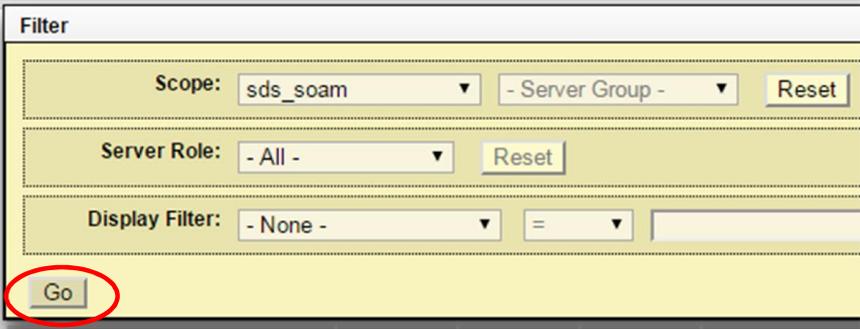
## 9.2 Perform Backout

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.

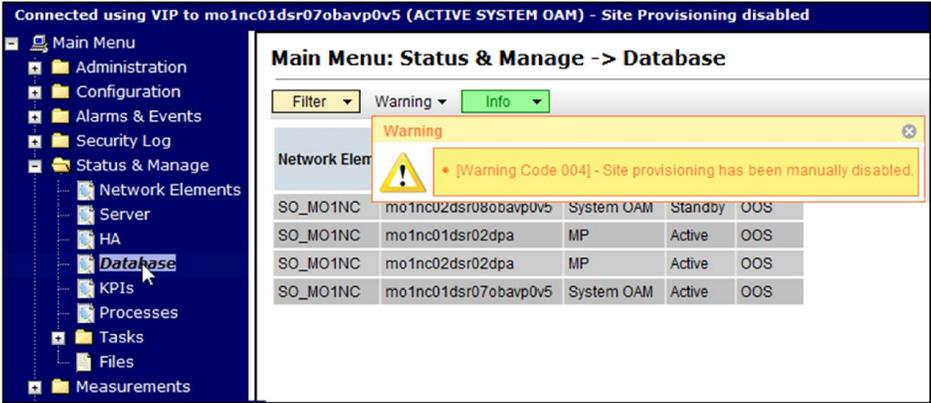
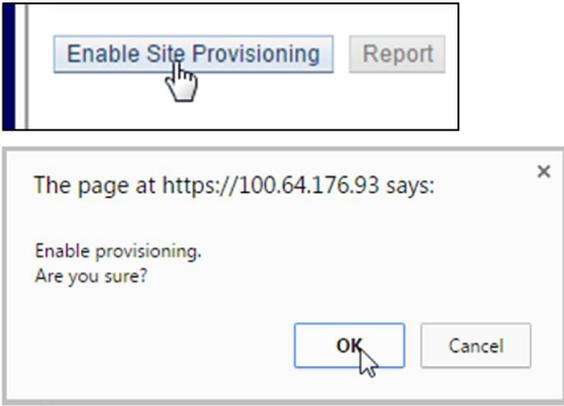
#### Procedure 8: Backout of a SOAM NE

Step	Procedure	Result																				
1. <input type="checkbox"/>	Using <b>VIP</b> address, access the Primary SDS GUI.	<ul style="list-style-type: none"> <li>Using VIP address, access the Primary SDS GUI as described in Appendix A.</li> </ul>																				
2. <input type="checkbox"/>	Record the name of the <b>SOAM NE site</b>	Using the information provided in Section 3.1.2 (Logins, Passwords and Site Information) record the name of the <b>SOAM NE site</b> in the space provided below:  <b>SOAM NE site:</b> _____																				
3. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP (GUI):</b></p> <p>Select...</p> <p><b>Main Menu</b> → <b>Status &amp; Manage</b> → <b>HA</b></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
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dts3-qs-1	Observer	OOS	Observer	dts3-sds-a dts3-sds-b																		
4. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>1) From the “<b>Scope</b>” filter pull-down, select the Network Element name for the <b>SOAM NE site</b></p> <p>2) Click on the “<b>Go</b>” dialogue button</p>																					

**Procedure 8:** Backout of a SOAM NE

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

Procedure 8: Backout of a SOAM NE

Step	Procedure	Result
<div style="display: flex; align-items: center;">  <p><b>DO NOT PROCEED</b> with the next step until Steps 7 thru 9 of this Procedure have been successfully completed.</p> </div>		
<p>10.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Downgrade the <b>Active SOAM Server</b></p>	<ul style="list-style-type: none"> <li>Downgrade the <b>Active SOAM Server</b> (as identified and recorded in <b>Step 6</b> of this Procedure) using <b>Appendix E</b> (Backout of a Single Server)</li> <li>In <b>Step 6</b> of this Procedure, check-off <input checked="" type="checkbox"/> the associated <b>check box</b> as the downgrade is completed for the backed out <b>Active SOAM Server</b></li> </ul>
<p>11.</p> <input type="checkbox"/>	<p>Using <b>VIP</b> address, access the <b>SOAM GUI</b>.</p>	<p>Using <b>VIP</b> address, access the <b>SOAM GUI</b> as described in <b>Appendix A</b>.</p>
<p>12.</p> <input type="checkbox"/>	<p><b>SOAM VIP (GUI):</b></p> <p>Select...</p> <p><b>Main Menu</b>                  → <b>Status &amp; Manage</b>                  → <b>Dstabase</b></p> <p>...as shown on the right.</p>	
<p>13.</p> <input type="checkbox"/>	<p><b>SOAM VIP:</b></p> <p>1) Click the “<b>Enable Site Provisioning</b>” button in the lower left of the right panel.</p> <p>2) Click the “<b>OK</b>” button on the pop-up confirmation dialoguw box.</p>	
<p>14.</p> <input type="checkbox"/>	<p><b>SOAM VIP:</b></p> <p>Use the <b>[Logout]</b> link in the top right of the browser to logout of the <b>SOAM GUI</b>.</p>	

**Procedure 8: Backout of a SOAM NE**

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

**Procedure 9:** Backout of the DR SDS NOAM NE

Step	Procedure	Result																												
1. <input type="checkbox"/>	Using <b>VIP</b> address, access the Primary SDS GUI.	<ul style="list-style-type: none"> <li>Using VIP address, access the Primary SDS GUI as described in Appendix A.</li> </ul>																												
2. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP (GUI):</b></p> <p>Select...</p> <p><b>Main Menu</b> → <b>Status &amp; Manage</b> → <b>HA</b></p> <p>...as shown on the right.</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> </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	Application HA Role	Max Allowed HA Role	Mate Hostname 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	Application HA Role	Max Allowed HA Role	Mate Hostname 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 <b>DR SDS NE site</b> 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 <b>DR SDS NE site</b> in the space provided below:</p> <p><b>DR SDS NE site:</b> _____</p>																												
4. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>1) From the “<b>Scope</b>” filter pull-down, select the Network Element name for the <b>DR SDS NE site</b></p> <p>2) Click on the “<b>Go</b>” dialogue button located on the right end of the filter bar.</p>																													
5. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>The user should be presented with the list of servers associated with the <b>DR SDS NE site</b></p> <p>Identify each “<b>Server</b>”, its “<b>Server Role</b>” and “<b>OAM HA Role</b>”</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&amp;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&amp;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																								
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																								

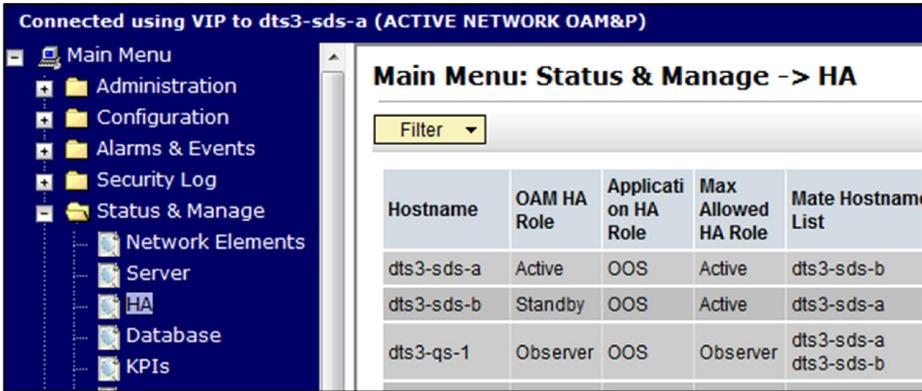
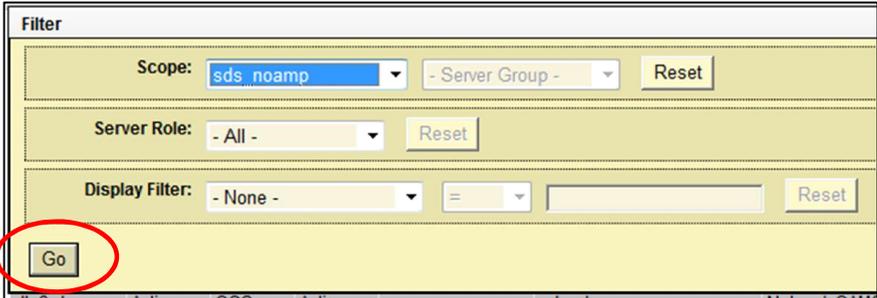
**Procedure 9:** Backout of the DR SDS NOAM NE

Step	Procedure	Result
<p>6.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Record the names of <b>DR SDS NE site</b> servers appropriately in the space provided to the right.</p>	<ul style="list-style-type: none"> <li>• Record the names of <b>DR SDS NE site</b> servers</li> <li><input type="checkbox"/> <b>DR SDS Active Server:</b> _____</li> <li><input type="checkbox"/> <b>DR SDS Standby Server:</b> _____</li> <li><input type="checkbox"/> <b>DR SDS Query Server:</b> _____</li> </ul>
 <p><b>NOTE:</b> Steps 7 and 8 of this Procedure may be executed in parallel.</p>		
<p>7.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Downgrade <b>DR SDS Query Server</b></p>	<ul style="list-style-type: none"> <li>• Downgrade <b>DR SDS Query Server</b> (as identified and recorded in <b>Step 6</b> of this Procedure) using in <b>Appendix E</b> (Backout of a Single Server)</li> <li>• In <b>Step 6</b> of this Procedure, check-off <input checked="" type="checkbox"/> the associated <b>check box</b> as the downgrade is completed for the backed out <b>DR SDS Query Server</b></li> </ul>
<p>8.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Downgrade <b>DR SDS Standby Server</b></p>	<ul style="list-style-type: none"> <li>• Downgrade <b>DR SDS Standby Server</b> (as identified and recorded in <b>Step 6</b> of this Procedure) using in <b>Appendix E</b> (Backout of a Single Server)</li> <li>• In <b>Step 6</b> of this Procedure, check-off <input checked="" type="checkbox"/> the associated <b>check box</b> as the downgrade is completed for the backed out <b>DR SDS Standby Server</b></li> </ul>
 <p><b>DO NOT PROCEED</b> with the next step until <b>Steps 7 and 8</b> of this Procedure have been successfully completed.</p>		
<p>9.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Downgrade <b>DR SDS Active Server</b></p>	<ul style="list-style-type: none"> <li>• Downgrade <b>DR SDS Active Server</b> (as identified and recorded in <b>Step 6</b> of this Procedure) using in <b>Appendix E</b> (Backout of a Single Server)</li> <li><i><b>NOTE:</b> This will cause an HA activity failover to the mate DR SDS Server. This happens a couple minutes after initiating the upgrade.</i></li> <li>• In <b>Step 6</b> of this Procedure, check-off <input checked="" type="checkbox"/> the associated <b>check box</b> as the downgrade is completed for the backed out <b>DR SDS Active Server</b></li> </ul>
<p>10.</p> <input type="checkbox"/>	<p><b>Active SDS VIP:</b></p> <p>Execute Health Check at this time only if no other servers require the backout. Otherwise, proceed with the next backout.</p>	<p>Execute Health Check procedures (Post Backout) as specified in <b>Appendix B</b>, if downgrade procedures have been completed for all required servers.</p>
<p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>		

### 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.

**Procedure 10:** Backout of the Primary SDS NOAM NE

Step	Procedure	Result																												
1. <input type="checkbox"/>	Using <b>VIP</b> address, access the Primary SDS GUI.	<ul style="list-style-type: none"> <li>Using VIP address, access the Primary SDS GUI as described in Appendix A.</li> </ul>																												
2. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP (GUI):</b></p> <p>Select...</p> <p><b>Main Menu</b> → <b>Status &amp; Manage</b> → <b>HA</b></p> <p>...as shown on the right.</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> </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	Application HA Role	Max Allowed HA Role	Mate Hostname 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	Application HA Role	Max Allowed HA Role	Mate Hostname 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 <b>Primary SDS NE site</b> 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 <b>DR SDS NE site</b> in the space provided below:</p> <p><b>Primary SDS NE site:</b> _____</p>																												
4. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>1) From the “<b>Scope</b>” filter pull-down, select the Network Element name for the <b>Primary SDS NE site</b></p> <p>2) Click on the “<b>Go</b>” dialogue button located on the right end of the filter bar.</p>																													
5. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>The user should be presented with the list of servers associated with the <b>Primary SDS NE site</b></p> <p>Identify each “<b>Server</b>”, its “<b>Server Role</b>” and “<b>OAM HA Role</b>”</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&amp;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&amp;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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**Procedure 10:** Backout of the Primary SDS NOAM NE

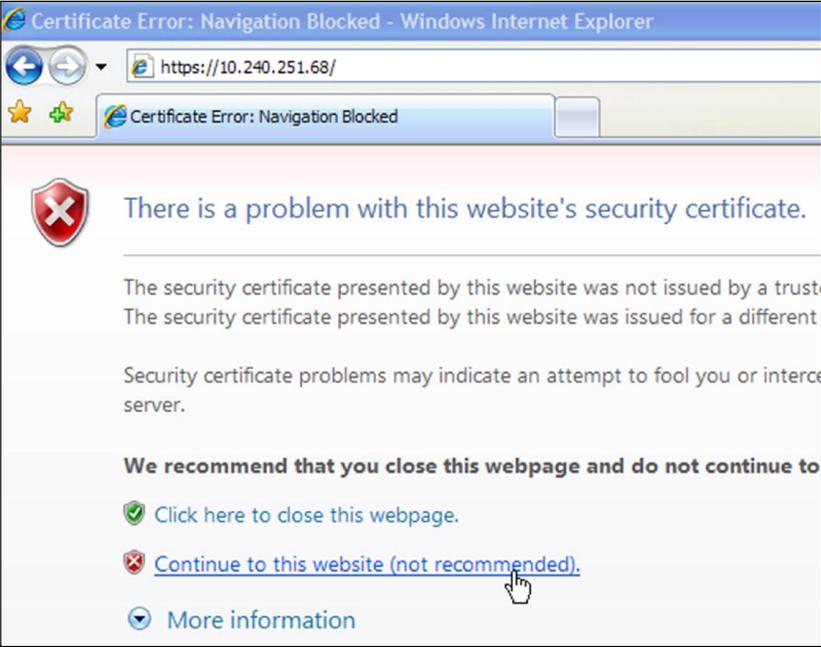
Step	Procedure	Result
<p>6.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Record the names of <b>Primary SDS NE site servers</b> appropriately in the space provided to the right.</p>	<ul style="list-style-type: none"> <li>• Record the names of <b>Primary SDS NE site servers</b></li> <li><input type="checkbox"/> <b>Primary SDS Active Server:</b> _____</li> <li><input type="checkbox"/> <b>Primary SDS Standby Server:</b> _____</li> <li><input type="checkbox"/> <b>Primary SDS Query Server:</b> _____</li> </ul>
<div style="display: flex; align-items: center;">  <p><b>NOTE:</b> Steps 7 and 8 of this Procedure may be executed in parallel.</p> </div>		
<p>7.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Downgrade <b>Primary SDS Query Server</b></p>	<ul style="list-style-type: none"> <li>• Downgrade <b>Primary SDS Query Server</b> (as identified and recorded in <b>Step 6</b> of this Procedure) using in <b>Appendix E</b> (Backout of a Single Server)</li> <li>• In <b>Step 6</b> of this Procedure, check-off <input checked="" type="checkbox"/> the associated <b>check box</b> as the downgrade is completed for the backed out <b>Primary SDS Query Server</b></li> </ul>
<p>8.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Downgrade <b>Primary SDS “Standby” Server</b></p>	<ul style="list-style-type: none"> <li>• Downgrade <b>Primary SDS NOAM “Standby” Server</b> (as identified and recorded in <b>Step 6</b> of this Procedure) using in <b>Appendix E</b> (Backout of a Single Server)</li> <li>• In <b>Step 6</b> of this Procedure, check-off <input checked="" type="checkbox"/> the associated <b>check box</b> as the downgrade is completed for the backed out <b>Primary SDS Standby Server</b></li> </ul>
<p>9.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Using the <b>VIP</b> address, login to the <b>“Active” Primary SDS NOAM</b> with the <b>admusr</b> 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: &lt;admusr_password&gt;</pre>
<p>10.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>The user will be presented with output similar to that shown to the right.</p>	<p><b>*** TRUNCATED OUTPUT ***</b></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-b ~]\$</pre>
<p>11.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Verify that the <b>DbReplication</b> status is <b>“Active”</b> to the <b>Standby Primary SDS NOAM</b> and the <b>Query Server</b> (if equipped) which were upgraded in <b>Steps 29 and 30</b> 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>

Procedure 10: Backout of the Primary SDS NOAM NE

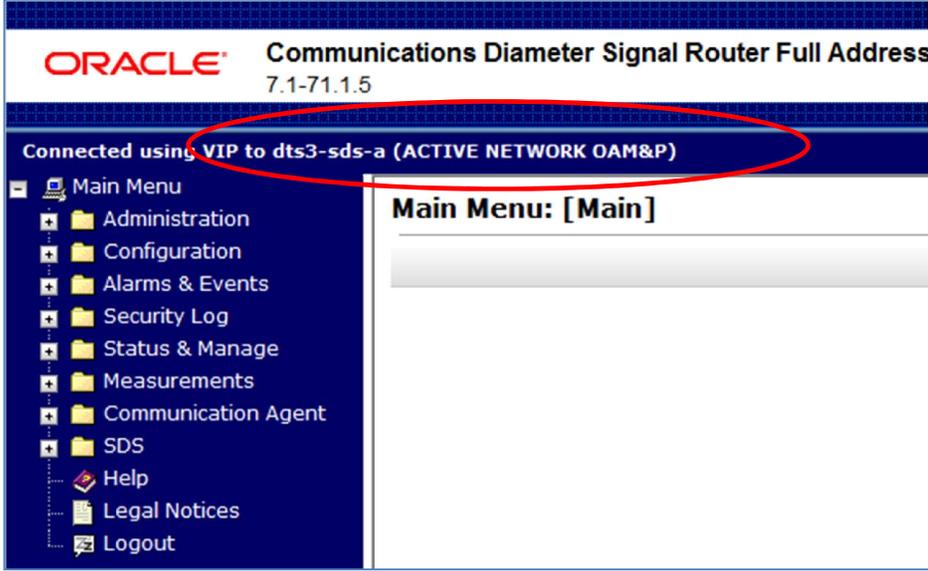
Step	Procedure	Result
<p>12.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p><b>!! IMPORTANT !!</b></p> <p><i>DO NOT proceed to the next step until a DbReplication status of "Active" is returned for the Standby Primary SDS NOAM and the Query Server (if equipped).</i></p>	<p>If a DbReplication status of "Audit" was received in the previous step, then <b>REPEAT Step 11</b> of this procedure until a status of "Active" is returned.</p>
<p>13.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></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><b>Primary SDS NOAM VIP:</b></p> <p>Downgrade Primary SDS "Active" Server.</p> <p><b>!! IMPORTANT !!</b></p> <p><i>This will cause an HA activity Switchover to the mate Primary SDS NOAM server.</i></p>	<ul style="list-style-type: none"> <li>Downgrade <b>Primary SDS NOAM "Active" Server</b> (as identified and recorded in <b>Step 6</b> of this Procedure) using in <b>Appendix E</b> (Backout of a Single Server)</li> <li>In <b>Step 6</b> of this Procedure, check-off <input checked="" type="checkbox"/> the associated <b>check box</b> as the downgrade is completed for the backed out <b>Primary SDS NOAM Active Server</b></li> </ul>
<p>15.</p> <input type="checkbox"/>	<p>Allow system to auto-clear temporary alarm states.</p>	<ul style="list-style-type: none"> <li>Wait up to 10 minutes for Alarms associated with server backout to auto-clear.</li> </ul> <p><b>!! IMPORTANT !!</b></p> <ul style="list-style-type: none"> <li>If <b>PDB Relay</b> was recorded as "Enabled" in <b>Appendix E, Step 8</b>, then <b>Event 14189 (pdbRelay Time Lag)</b> may be persist for several hours post upgrade. This alarm can safely be ignored and should <b>auto-clear</b> when the <b>PDBI (HLRR) queue</b> catches up with real-time replication.</li> </ul>
<p>16.</p> <input type="checkbox"/>	<p>Execute Health Check</p>	<p>Execute Health Check procedures (Post Backout) as specified in <b>Appendix B</b>, if downgrade procedures have been completed for all required servers.</p>
<p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>		

**APPENDIX A. ACCESSING THE OAM GUI USING THE VIP (NOAM / SOAM)**

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

Step	Procedure	Result
<p>1.</p> <p><input type="checkbox"/></p>	<p><b>OAM VIP (GUI):</b></p> <p>1) Launch the approved Web browser <b>Internet Explorer 8.0, 9.0</b> or <b>10.0</b> and connect to the XMI Virtual IP Address (VIP) assigned to <b>OAM site</b> (Primary SDS site or SOAM site) - see <b>Table 4</b></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>	
<p>2.</p> <p><input type="checkbox"/></p>	<p><b>OAM VIP (GUI):</b></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>	

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

Step	Procedure	Result
<p>3.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p><b>OAM VIP (GUI):</b></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 <b>Active</b> OAM server.</p>	 <p><b>NOTE:</b> The message may show connection to either a “NETWORK OAM&amp;P” or a “SYSTEM OAM” depending on the selected NE.</p>
<p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>		

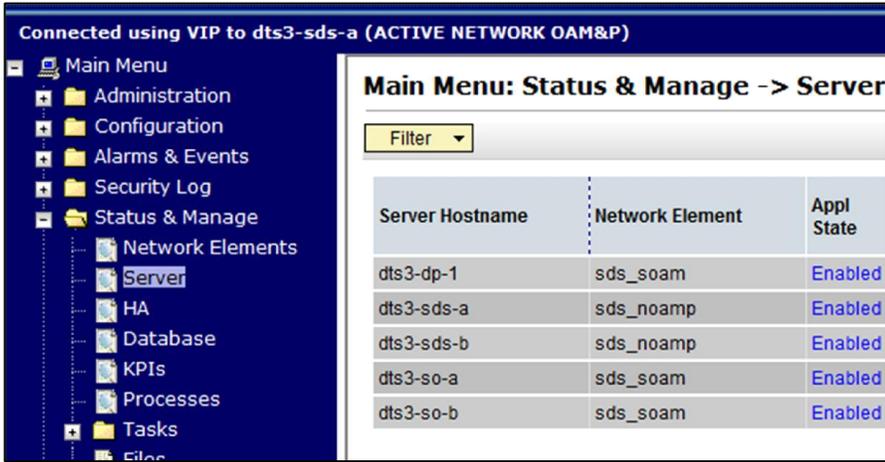
## APPENDIX B. HEALTH CHECK PROCEDURES

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

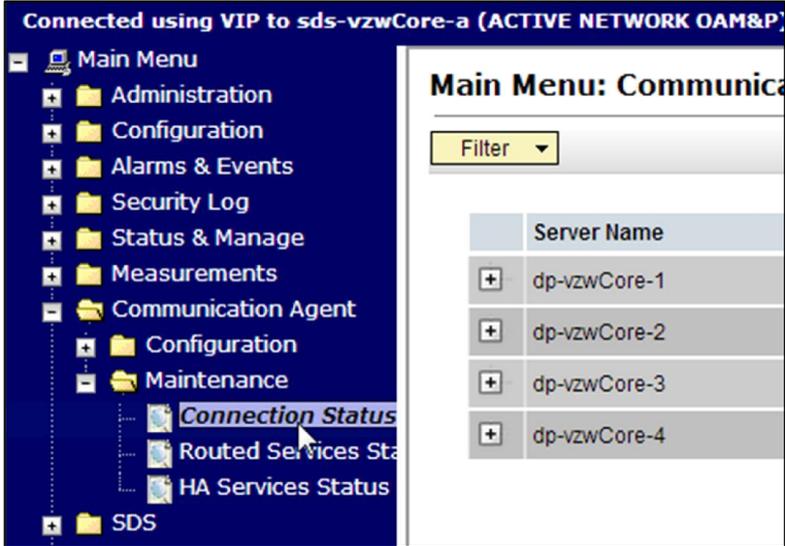
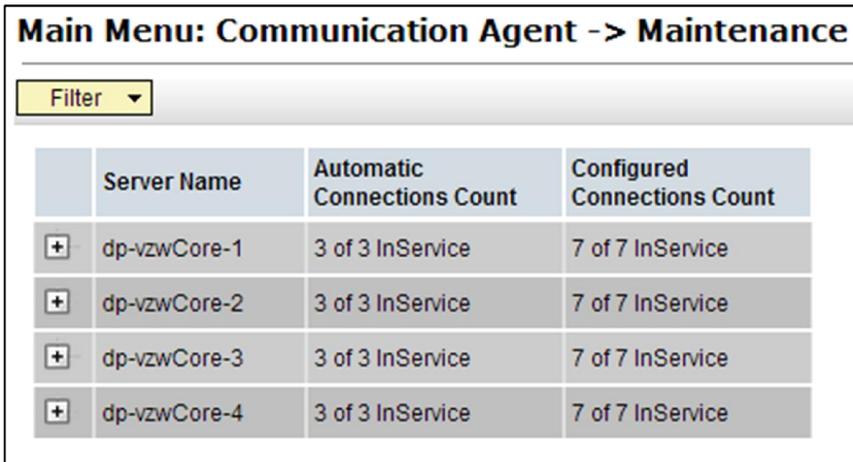
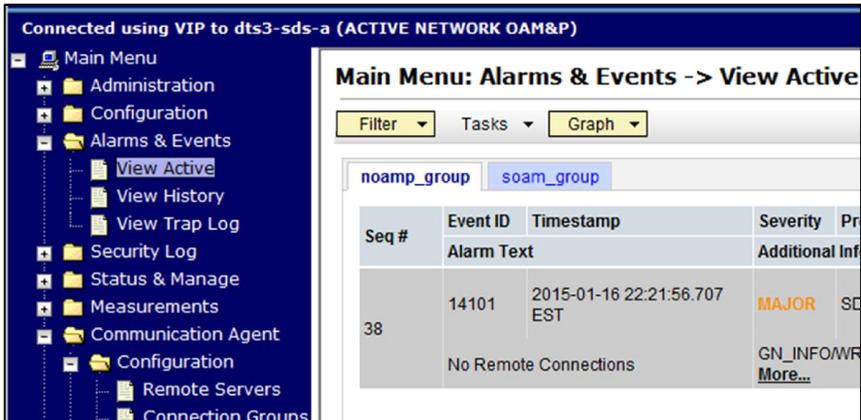
Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

SHOULD ANY STEP IN THIS PROCEDURE FAIL, STOP AND CONTACT ORACLE'S TEKELEC CUSTOMER CARE CENTER FOR ASSISTANCE BEFORE CONTINUING!

### Appendix B: Health Check Procedures

Step	Procedure	Result																																										
1. <input type="checkbox"/>	Using <b>VIP</b> address, access the Primary SDS GUI.	➤ Using <b>VIP</b> address, access the <b>Primary SDS NOAM GUI</b> as described in <b>Appendix A</b>																																										
2. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP (GUI):</b> Select...</p> <p><b>Main Menu</b> → <b>Status &amp; Manage</b> → <b>Server</b></p> <p>...as shown on the right.</p>	 <p>The screenshot shows the 'Main Menu: Status &amp; Manage -&gt; Server' interface. On the left is a tree view with 'Server' selected. On the right is a table with columns: Server Hostname, Network Element, and Appl State.</p> <table border="1" style="display: none;"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> </tr> </thead> <tbody> <tr><td>dts3-dp-1</td><td>sds_soam</td><td>Enabled</td></tr> <tr><td>dts3-sds-a</td><td>sds_noamp</td><td>Enabled</td></tr> <tr><td>dts3-sds-b</td><td>sds_noamp</td><td>Enabled</td></tr> <tr><td>dts3-so-a</td><td>sds_soam</td><td>Enabled</td></tr> <tr><td>dts3-so-b</td><td>sds_soam</td><td>Enabled</td></tr> </tbody> </table>	Server Hostname	Network Element	Appl State	dts3-dp-1	sds_soam	Enabled	dts3-sds-a	sds_noamp	Enabled	dts3-sds-b	sds_noamp	Enabled	dts3-so-a	sds_soam	Enabled	dts3-so-b	sds_soam	Enabled																								
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3. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP (GUI):</b></p> <p>Verify that all server statuses show "<b>Norm</b>" 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><b>NOTE:</b> Other server states include <b>Err</b>, <b>Warn</b>, <b>Man</b> and <b>Unk</b>.</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporti ng 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><b>NOTE:</b> Post-Upgrade, upgraded servers will have an "Alm" status of "Err" due to the following expected alarm.</p> <ul style="list-style-type: none"> <li>• <b>Event ID (s): 32532 (Server Upgrade Pending Accept/Reject)</b></li> </ul> <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	Reporti ng 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
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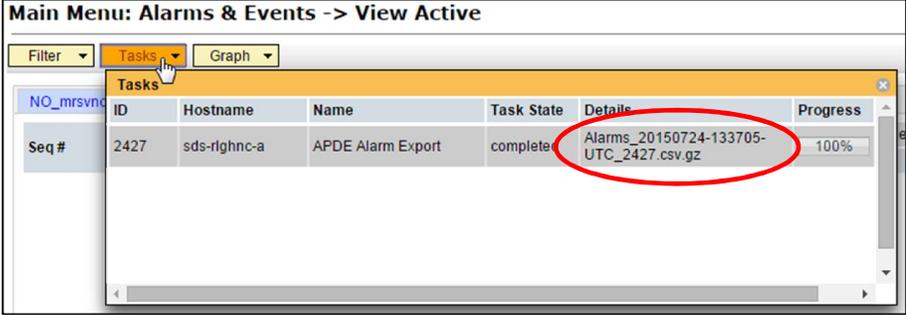
Appendix B: Health Check Procedures

Step	Procedure	Result															
<p>4.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP (GUI):</b></p> <p>Select...</p> <p><b>Main Menu</b>                      → Communication Agent                      → Maintenance                      → Connection Status</p> <p>...as shown on the right.</p>	 <p>Connected using VIP to sds-vzwCore-a (ACTIVE NETWORK OAM&amp;P)</p> <p>Main Menu: Communication Agent -&gt; Maintenance</p> <table border="1"> <thead> <tr> <th>Server Name</th> </tr> </thead> <tbody> <tr><td>dp-vzwCore-1</td></tr> <tr><td>dp-vzwCore-2</td></tr> <tr><td>dp-vzwCore-3</td></tr> <tr><td>dp-vzwCore-4</td></tr> </tbody> </table>	Server Name	dp-vzwCore-1	dp-vzwCore-2	dp-vzwCore-3	dp-vzwCore-4										
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<p>5.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP (GUI):</b></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><b>NOTE: DPs will show a "Configured Connections Count" of "1 of 2 InService" for Active/Standby configurations. This is normal and can be ignored.</b></p>	 <p>Main Menu: Communication Agent -&gt; Maintenance</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
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dp-vzwCore-4	3 of 3 InService	7 of 7 InService															
<p>6.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP (GUI):</b></p> <p>Select...</p> <p><b>Main Menu</b>                      → Alarm &amp; Events                      → View Active</p> <p>...as shown on the right.</p>	 <p>Connected using VIP to dts3-sds-a (ACTIVE NETWORK OAM&amp;P)</p> <p>Main Menu: Alarms &amp; Events -&gt; View Active</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> <tr> <td colspan="5">No Remote Connections</td> </tr> </tbody> </table>	Seq #	Event ID	Timestamp	Severity	Pr	38	14101	2015-01-16 22:21:56.707 EST	MAJOR	SD	No Remote Connections				
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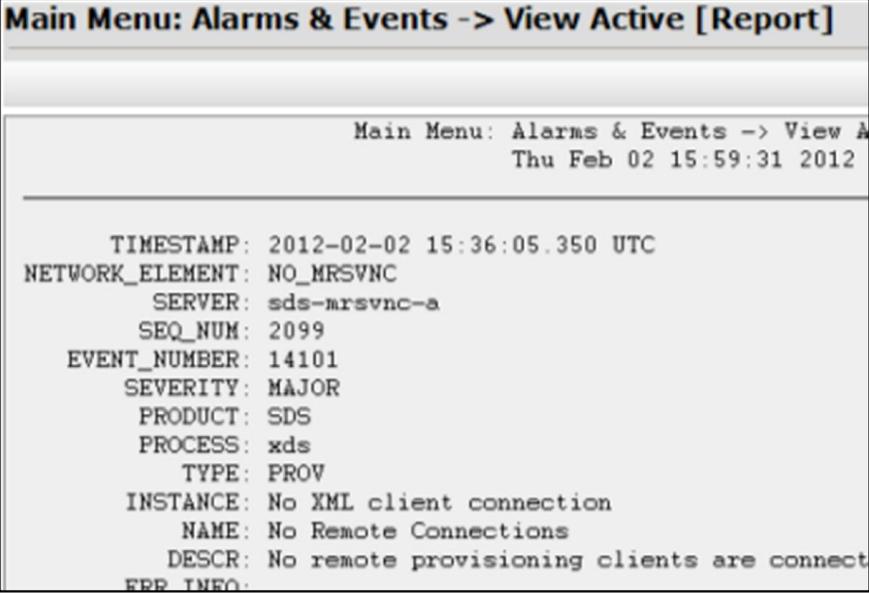
Appendix B: Health Check Procedures

Step	Procedure	Result																					
<p>7.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP (GUI):</b></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 = <b>10075</b> (Application processes have been manually stopped)                      Alarm ID = <b>10008</b> (Provisioning Manually Disabled)</p> <p>Servers that still have replication disabled will have the following expected alarm:                      Alarm ID = <b>31113</b> (Replication Manually Disabled)</p> <p>You may also see alarms:                      Alarm ID = <b>10010</b> (Stateful database not yet synchronized with mate database)                      Alarm ID = <b>32532</b> (Server Upgrade Pending Accept/Reject)</p>																					
<p>8.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP (GUI):</b></p> <p>Select the "Export" dialogue button from the bottom left corner of the screen.</p>																						
<p>9.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP (GUI):</b></p> <p>Click the "Ok" button at the bottom of the screen.</p>	<p><b>Main Menu: Alarms &amp; Events -&gt; View Active [Export]</b></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 writt 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 writt 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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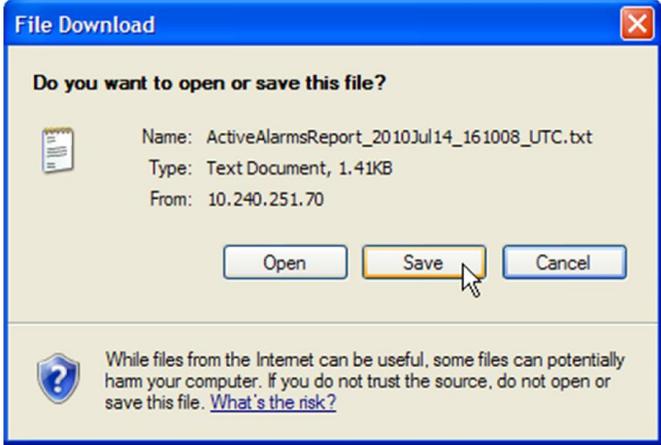
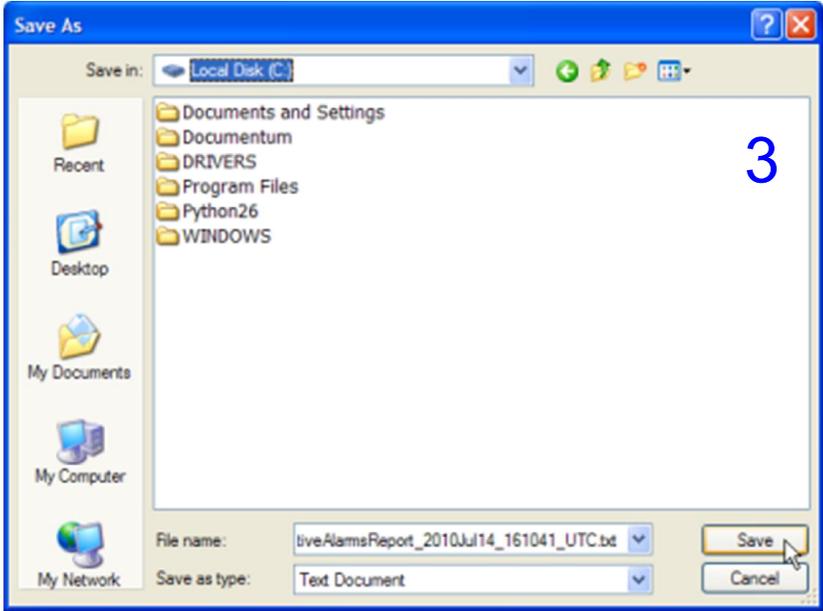
Appendix B: Health Check Procedures

Step	Procedure	Result
<p>10.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP (GUI):</b></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><b>Primary SDS NOAM VIP (GUI):</b></p> <p>Record the filename of Alarms CSV file generated in the space provided to the right.</p>	<p>Example: Alarms&lt;yyyymmdd&gt;_&lt;hhmmss&gt;.csv</p> <ul style="list-style-type: none"> <li>➤ <b>Pre ISO Administration:</b> Alarms _____ - _____ .csv.gz</li> <li>➤ <b>Post ISO Administration:</b> Alarms _____ - _____ .csv.gz</li> <li>➤ <b>Pre Primary NOAM Upgrade (MW1):</b> Alarms _____ - _____ .csv.gz</li> <li>➤ <b>Post DR NOAM Upgrade (MW1):</b> Alarms _____ - _____ .csv.gz</li> <li>➤ <b>Pre SOAM Upgrade (MW2):</b> Alarms _____ - _____ .csv.gz</li> <li>➤ <b>Post SOAM Upgrade (MW2):</b> Alarms _____ - _____ .csv.gz</li> <li>➤ <b>Pre SOAM Upgrade (MW3):</b> Alarms _____ - _____ .csv.gz</li> <li>➤ <b>Post SOAM Upgrade (MW3):</b> Alarms _____ - _____ .csv.gz</li> <li>➤ <b>Pre SOAM Upgrade (MW4):</b> Alarms _____ - _____ .csv.gz</li> <li>➤ <b>Post SOAM Upgrade (MW4):</b> Alarms _____ - _____ .csv.gz</li> <li>➤ <b>Pre SOAM Upgrade (MW5):</b> Alarms _____ - _____ .csv.gz</li> <li>➤ <b>Post SOAM Upgrade (MW5):</b> Alarms _____ - _____ .csv.gz</li> </ul>

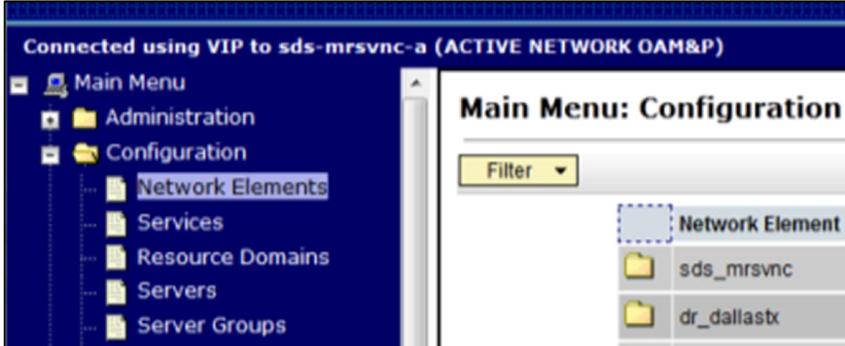
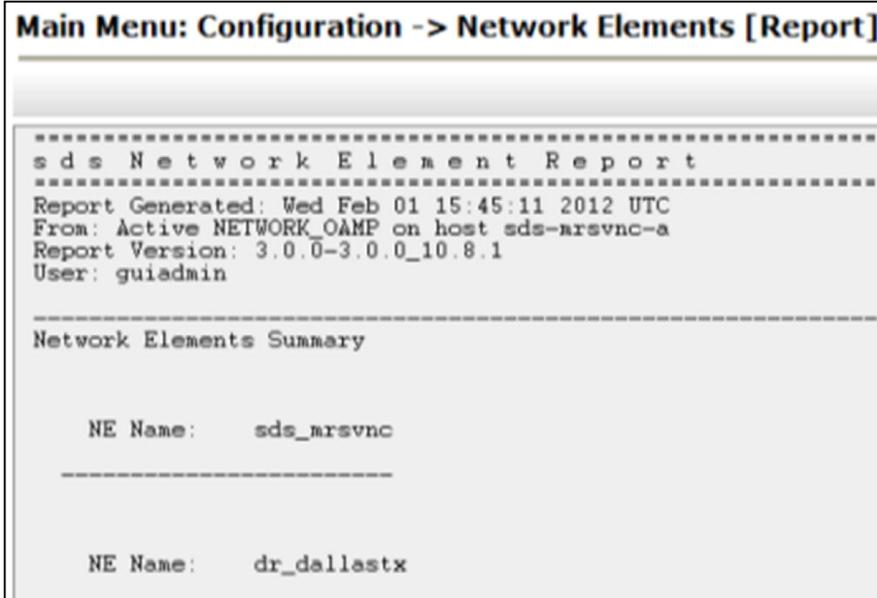
**Appendix B: Health Check Procedures**

Step	Procedure	Result
<p>12.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP (GUI):</b></p> <p>Select the <b>“Report”</b> dialogue button from the bottom left corner of the screen.</p>	
<p>13.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP (GUI):</b></p> <p>An <b>Active “Alarms &amp; Events” Report</b> will be generated and displayed in the right panel.</p>	 <pre> Main Menu: Alarms &amp; Events -&gt; View Active [Report] Main Menu: Alarms &amp; Events -&gt; View Active [Report] 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_INEQ:                     </pre>

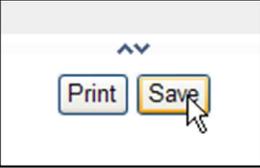
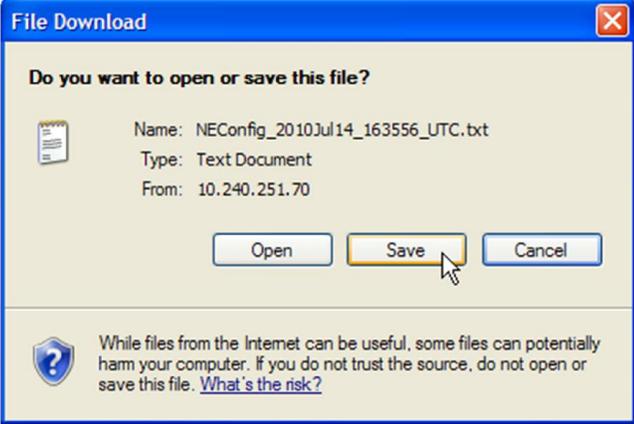
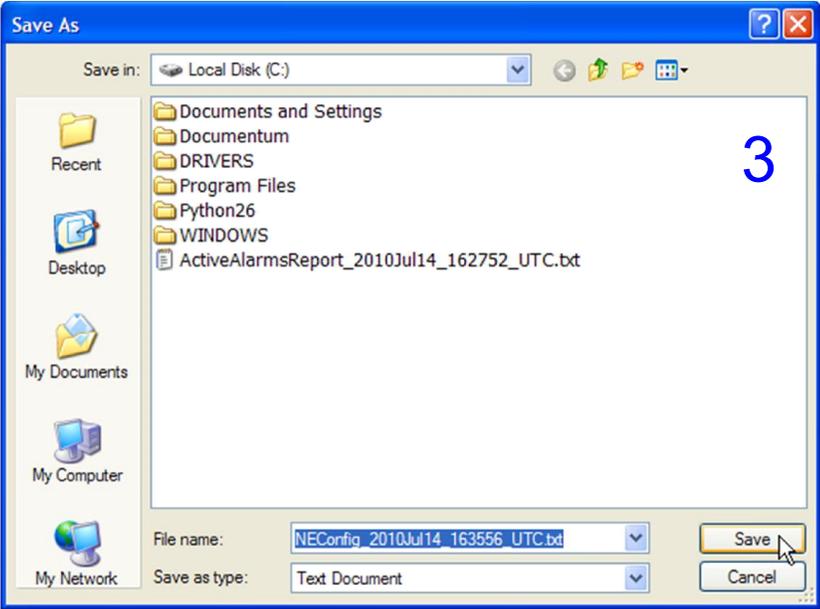
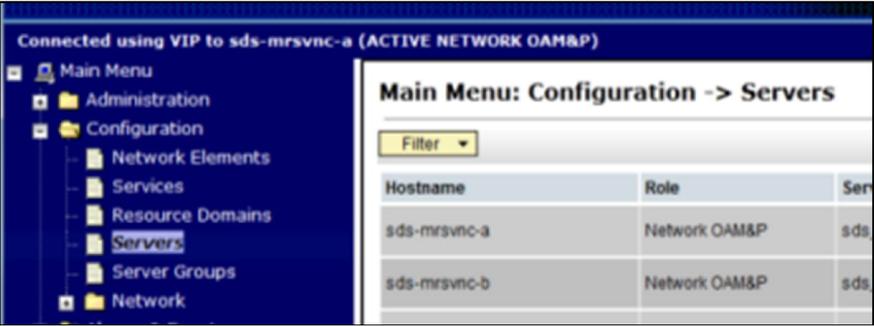
Appendix B: Health Check Procedures

Step	Procedure	Result
<p>14.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP (GUI):</b></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 &amp; Events” Report file and click the “Save” dialogue button.</p>	  

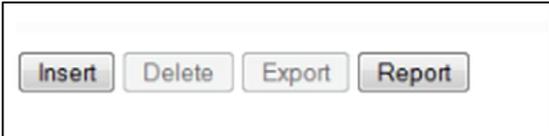
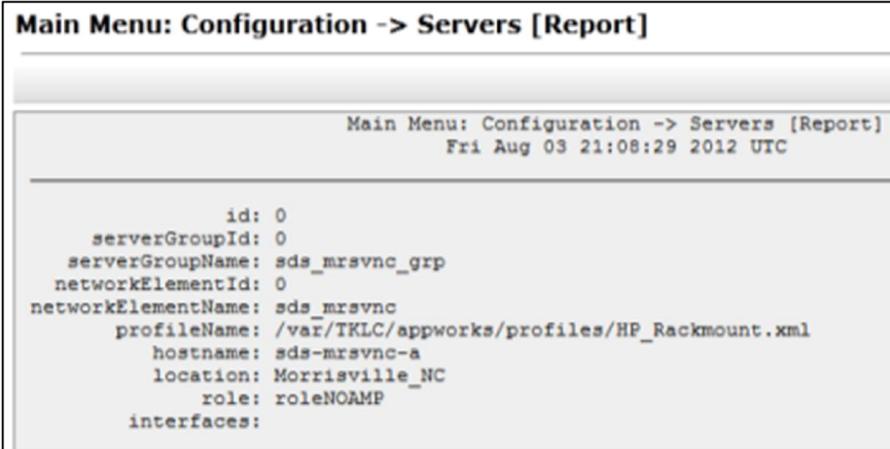
Appendix B: Health Check Procedures

Step	Procedure	Result
<p>15.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP (GUI):</b></p> <p>Select...</p> <p><b>Main Menu</b>                      → Configuration                      → Network Elements</p> <p>...as shown on the right.</p>	
<p>16.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP (GUI):</b></p> <p>Select the <b>“Report”</b> dialogue button from the bottom left corner of the screen.</p>	
<p>17.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP (GUI):</b></p> <p>A <b>“Network Element Report”</b> will be generated and displayed in the right panel.</p>	

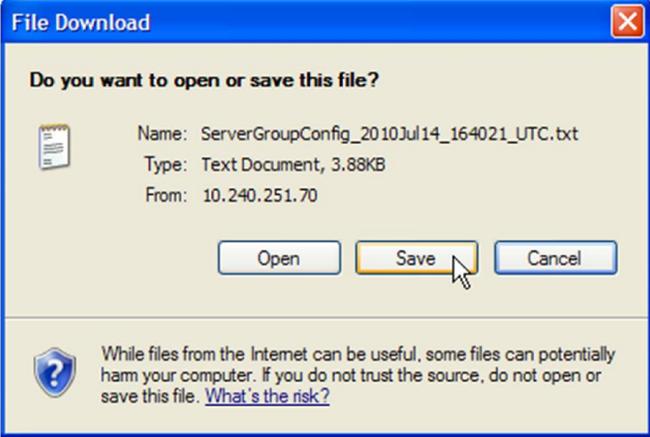
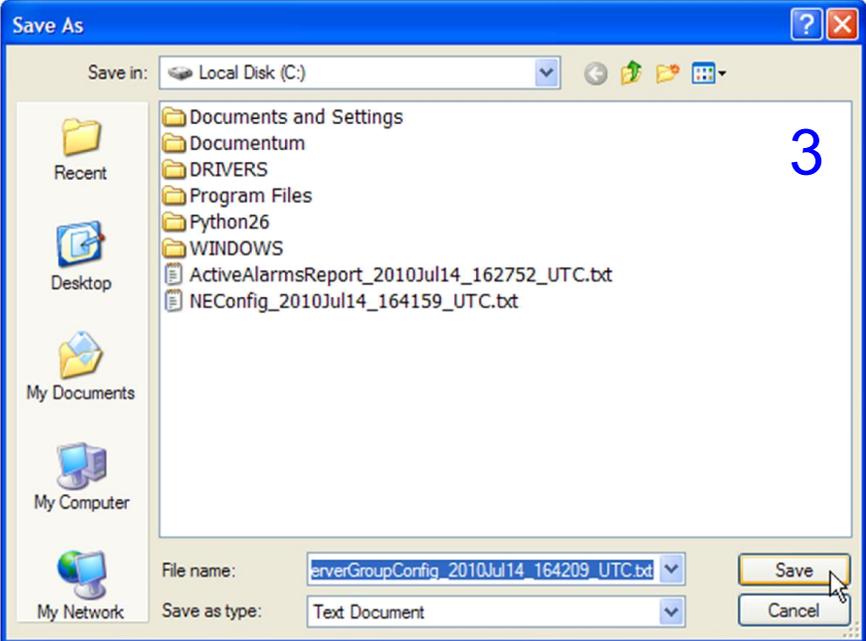
Appendix B: Health Check Procedures

Step	Procedure	Result									
<p>18.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP (GUI):</b></p> <p>1) Select the “<b>Save</b>” dialogue button from the bottom/middle of the right panel.</p> <p>2) Click the “<b>Save</b>” 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 “<b>Save</b>” dialogue button.</p>	  									
<p>19.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP (GUI):</b></p> <p>Select...</p> <p><b>Main Menu</b>          → <b>Configuration</b>          → <b>Servers</b></p> <p>...as shown on the right.</p>	 <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>Sen</th> </tr> </thead> <tbody> <tr> <td>sds-mrsvnc-a</td> <td>Network OAM&amp;P</td> <td>sds</td> </tr> <tr> <td>sds-mrsvnc-b</td> <td>Network OAM&amp;P</td> <td>sds</td> </tr> </tbody> </table>	Hostname	Role	Sen	sds-mrsvnc-a	Network OAM&P	sds	sds-mrsvnc-b	Network OAM&P	sds
Hostname	Role	Sen									
sds-mrsvnc-a	Network OAM&P	sds									
sds-mrsvnc-b	Network OAM&P	sds									

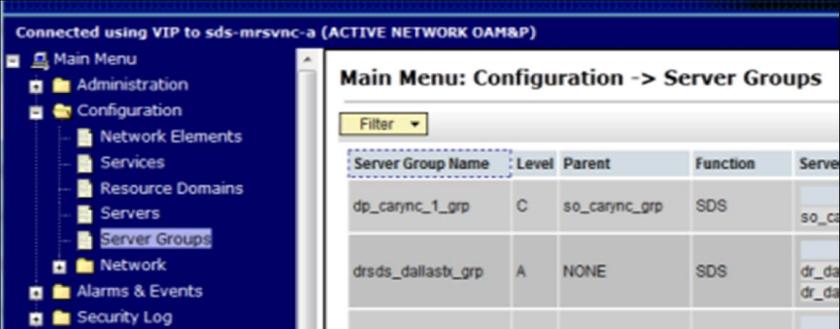
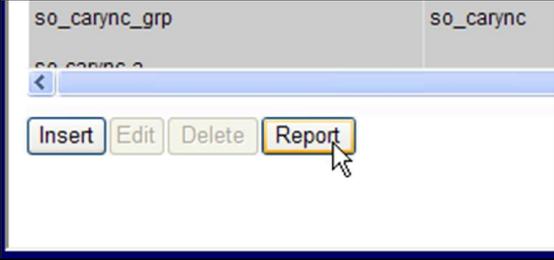
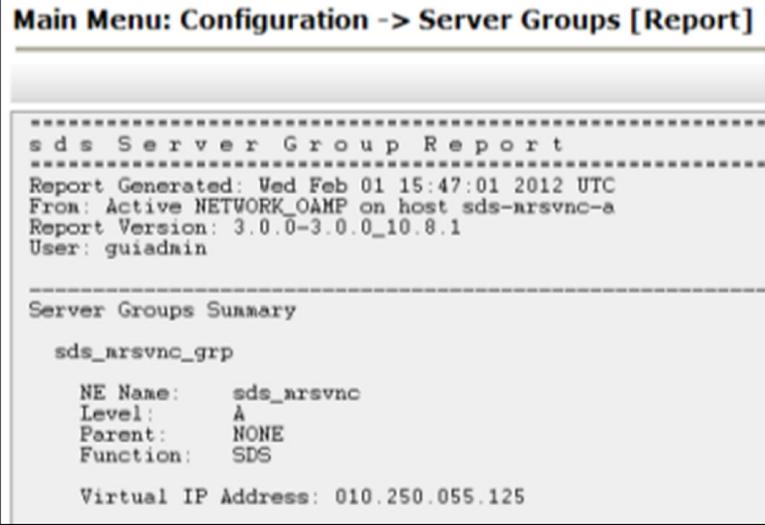
**Appendix B: Health Check Procedures**

Step	Procedure	Result
<p>20.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP (GUI):</b></p> <p>Select the <b>“Report”</b> dialogue button from the bottom left corner of the screen.</p>	
<p>21.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP (GUI):</b></p> <p>A <b>“Server Report”</b> will be generated and displayed in the right panel.</p>	 <pre> Main Menu: Configuration -&gt; Servers [Report] Main Menu: Configuration -&gt; 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>

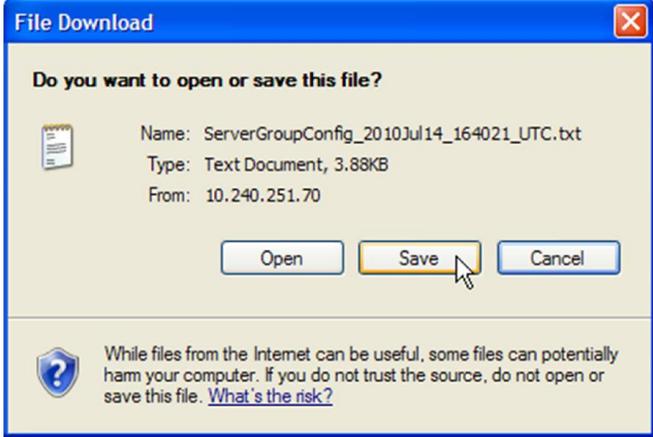
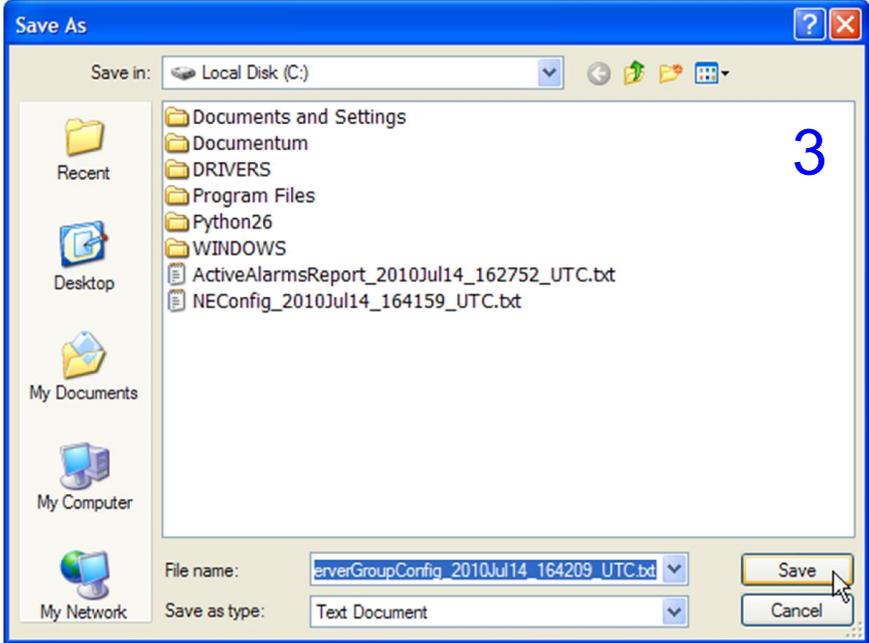
Appendix B: Health Check Procedures

Step	Procedure	Result
<p>22.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP (GUI):</b></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>	  

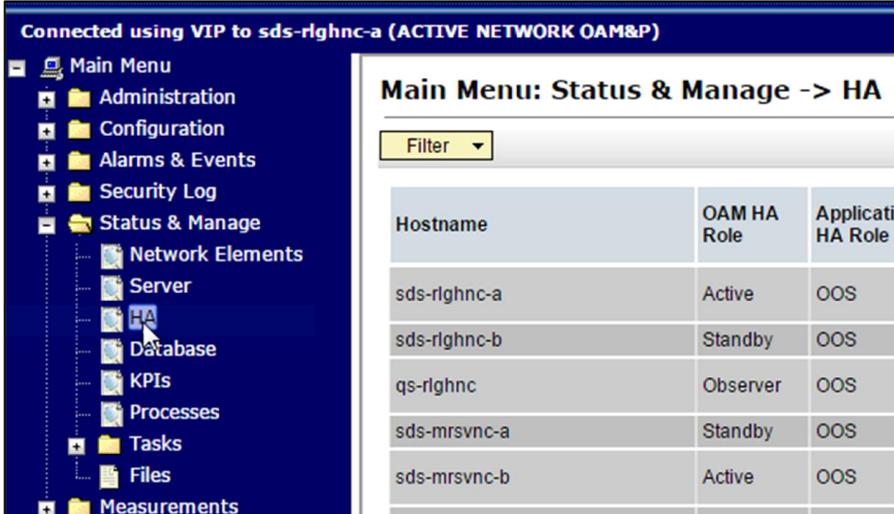
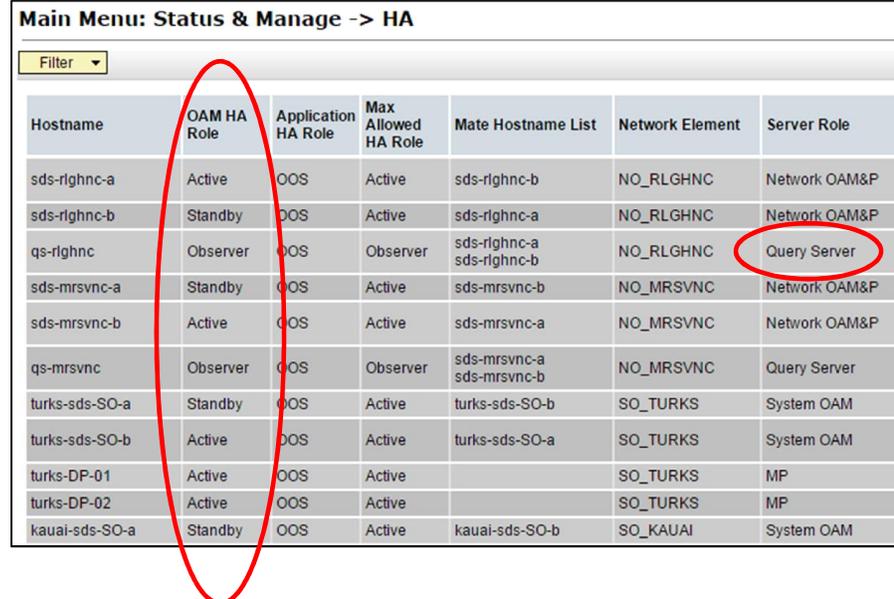
Appendix B: Health Check Procedures

Step	Procedure	Result
<p>23.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP (GUI):</b></p> <p>Select...</p> <p><b>Main Menu</b>                      → Configuration                      → Server Groups</p> <p>...as shown on the right.</p>	
<p>24.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP (GUI):</b></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><b>Primary SDS NOAM VIP (GUI):</b></p> <p>A “Server Group Report” will be generated and displayed in the right panel.</p>	

Appendix B: Health Check Procedures

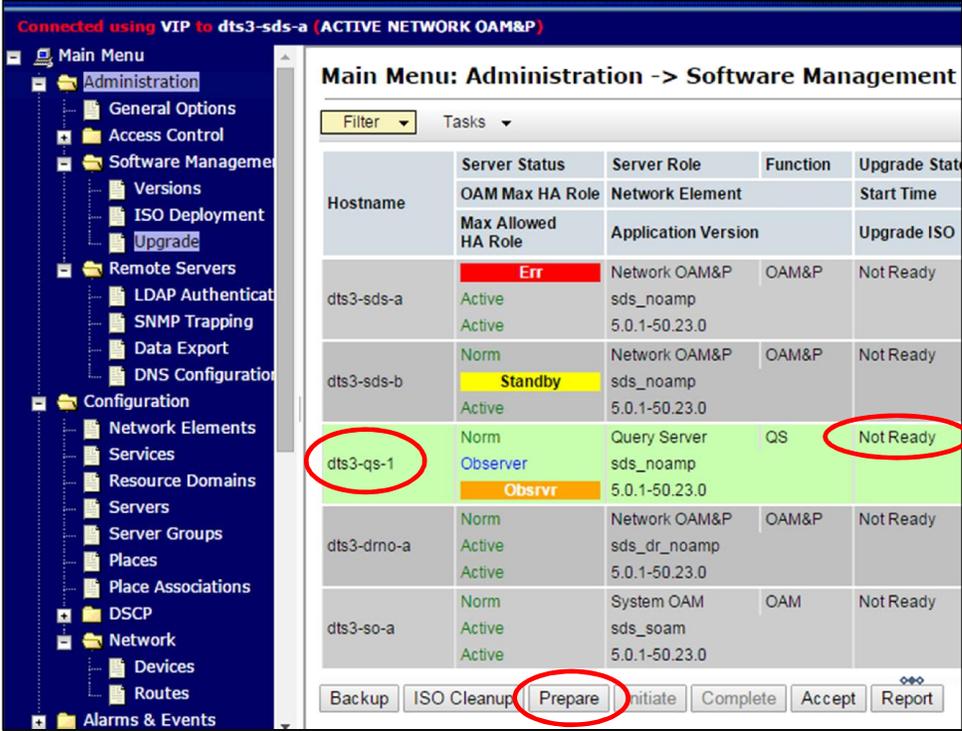
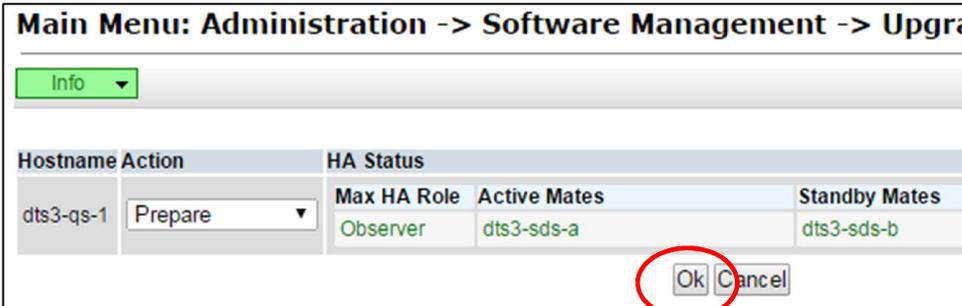
Step	Procedure	Result
<p>26.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP (GUI):</b></p> <p>1) Select the “<b>Save</b>” dialogue button from the bottom/middle of the right panel.</p> <p>2) Click the “<b>Save</b>” dialogue button on the File Download pop-up box.</p> <p>3) Select a directory on the local disk drive to store the “Server Group Report” file and click the “<b>Save</b>” dialogue button.</p>	  
<p>27.</p> <p><input type="checkbox"/></p>	<p>Provide the saved files to Oracle's Tekelec Customer Care Center for Health Check Analysis.</p>	<ul style="list-style-type: none"> <li>• If executing this procedure as a pre or post Upgrade Health Check (HC1/HC2/HC3), provide the following saved files to Oracle's Tekelec Customer Care Center for proper Health Check Analysis:             <ul style="list-style-type: none"> <li>○ <b>Active “Alarms &amp; Events” Report</b> [Appendix B, Step 14]</li> <li>○ <b>Network Elements Report</b> [Appendix B, Step 18]</li> <li>○ <b>Server Report</b> [Appendix B, Step 22]</li> <li>○ <b>Server Group Report</b> [Appendix B, Step 26]</li> </ul> </li> </ul>

Appendix B: Health Check Procedures

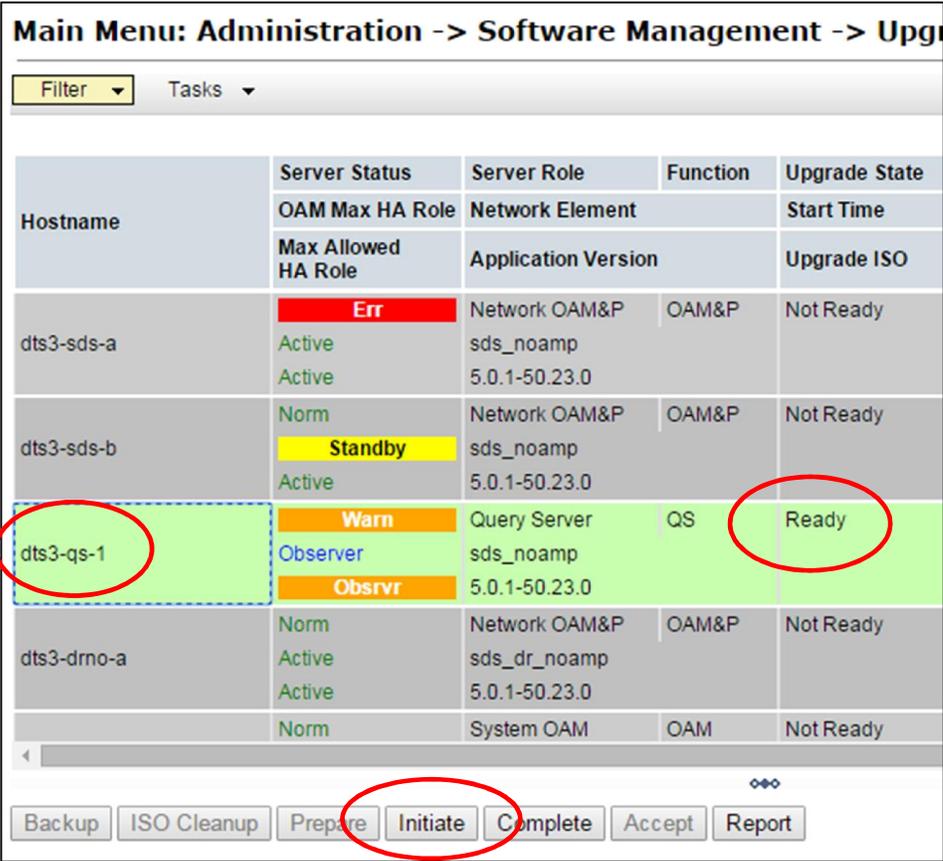
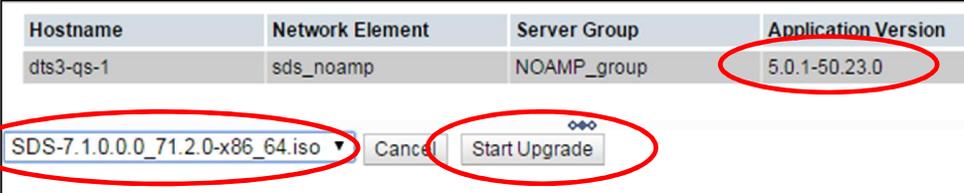
Step	Procedure	Result																																																																																				
<p>28.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP (GUI):</b></p> <p>Select...</p> <p><b>Main Menu</b> → <b>Status &amp; Manage</b> → <b>HA</b></p> <p>...as shown on the right.</p>																																																																																					
<p>29.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP (GUI):</b></p> <p>1) Verify that the “OAM HA Role” for all servers shows either “Active” or “Standby” as shown to the right.</p> <p><b>NOTE:</b> 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-rhghnc-a</td> <td>Active</td> <td>OOS</td> <td>Active</td> <td>sds-rhghnc-b</td> <td>NO_RLGHNC</td> <td>Network OAM&amp;P</td> </tr> <tr> <td>sds-rhghnc-b</td> <td>Standby</td> <td>OOS</td> <td>Active</td> <td>sds-rhghnc-a</td> <td>NO_RLGHNC</td> <td>Network OAM&amp;P</td> </tr> <tr> <td>qs-rhghnc</td> <td>Observer</td> <td>OOS</td> <td>Observer</td> <td>sds-rhghnc-a sds-rhghnc-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&amp;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&amp;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-rhghnc-a	Active	OOS	Active	sds-rhghnc-b	NO_RLGHNC	Network OAM&P	sds-rhghnc-b	Standby	OOS	Active	sds-rhghnc-a	NO_RLGHNC	Network OAM&P	qs-rhghnc	Observer	OOS	Observer	sds-rhghnc-a sds-rhghnc-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
Hostname	OAM HA Role	Application HA Role	Max Allowed HA Role	Mate Hostname List	Network Element	Server Role																																																																																
sds-rhghnc-a	Active	OOS	Active	sds-rhghnc-b	NO_RLGHNC	Network OAM&P																																																																																
sds-rhghnc-b	Standby	OOS	Active	sds-rhghnc-a	NO_RLGHNC	Network OAM&P																																																																																
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sds-mrsvnc-a	Standby	OOS	Active	sds-mrsvnc-b	NO_MRSVNC	Network OAM&P																																																																																
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kauai-sds-SO-a	Standby	OOS	Active	kauai-sds-SO-b	SO_KAUAI	System OAM																																																																																
<p>30.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP (GUI):</b></p> <p>Verify the “OAM HA Role” for all remaining servers on the [Main Menu: Status &amp; Manage → HA] screen.</p>	<ul style="list-style-type: none"> <li>• Scroll thru each page of the [Main Menu: Status &amp; Manage → HA] screen until the “OAM HA Role” for has been verified for all servers in the topology.</li> </ul>																																																																																				
<p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>																																																																																						

APPENDIX C. UPGRADE SERVER ON SDS 5.0

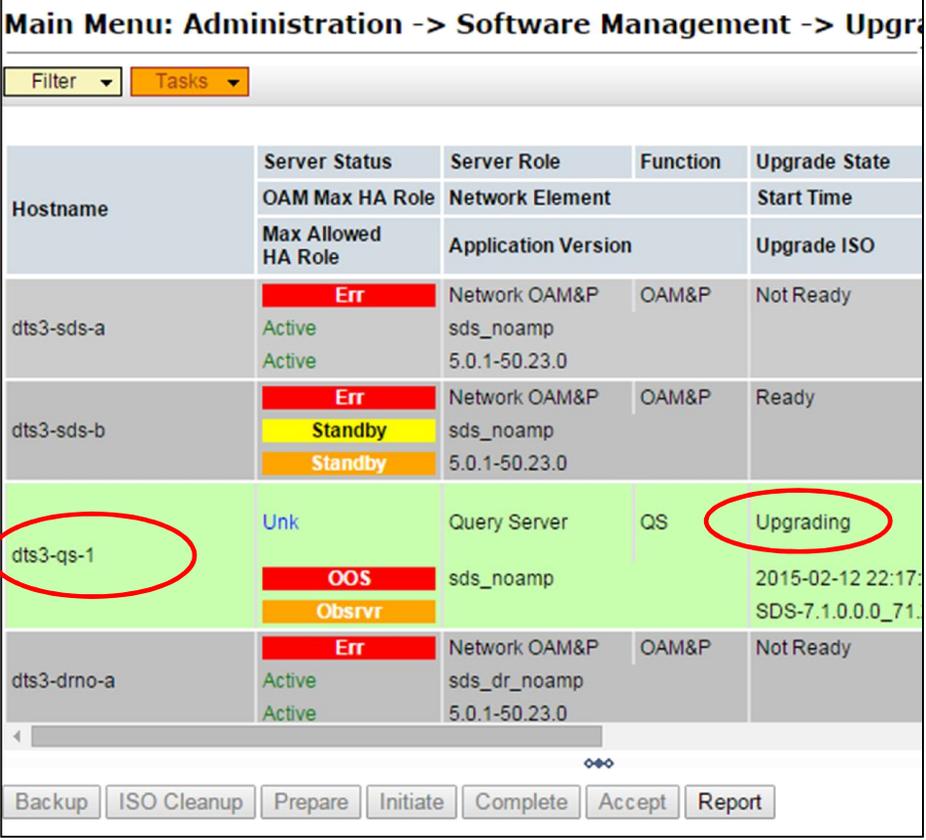
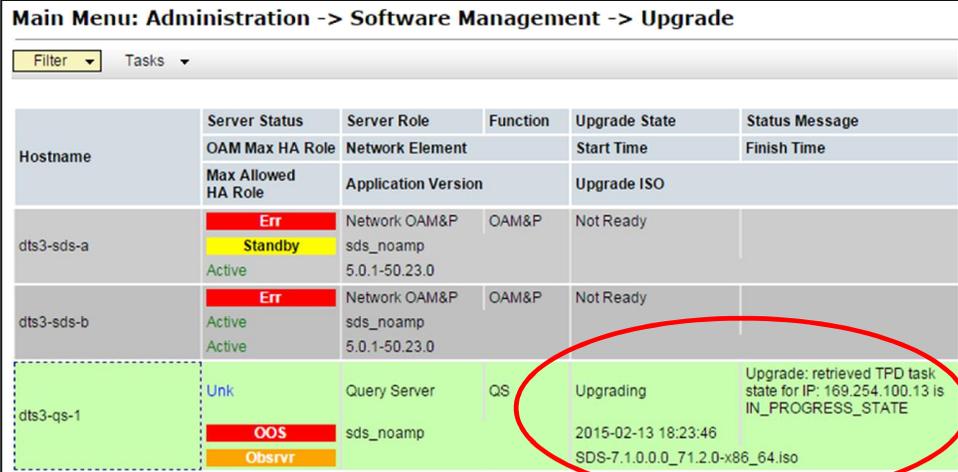
Appendix C: Upgrade Server on SDS 5.0

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

Appendix C: Upgrade Server on SDS 5.0

Step	Procedure	Result																																								
<p>4.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>1) Select...</p> <p><b>Main Menu</b>                      → Administration                      → Software Management                      → Upgrade</p> <p>2) Using the vertical scroll bar in the right panel, scroll to the row containing the <b>hostname</b> of the server to be upgraded.</p> <p>3) Verify that the <b>Upgrade State</b> shows “Ready”.</p> <p><b>NOTE:</b> If the <b>Upgrade State</b> fails to show “Ready”, the user may need to repeat above sub-steps</p> <p>3) Click the “Initiate” dialogue button</p>	 <p><b>Main Menu: Administration -&gt; Software Management -&gt; Upgrade</b></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&amp;P sds_noamp</td> <td>OAM&amp;P</td> <td>Not Ready</td> </tr> <tr> <td>dts3-sds-b</td> <td>Norm Standby Active</td> <td>Network OAM&amp;P sds_noamp</td> <td>OAM&amp;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&amp;P sds_dr_noamp</td> <td>OAM&amp;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 <b>Initiate</b> 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
Hostname	Server Status	Server Role	Function	Upgrade State																																						
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	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																																						
<p>5.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>1) Verify that the <b>Application Version</b> shows the &lt;source_release&gt;</p> <p>2) Using the pull-down menu, select the &lt;target_release&gt;</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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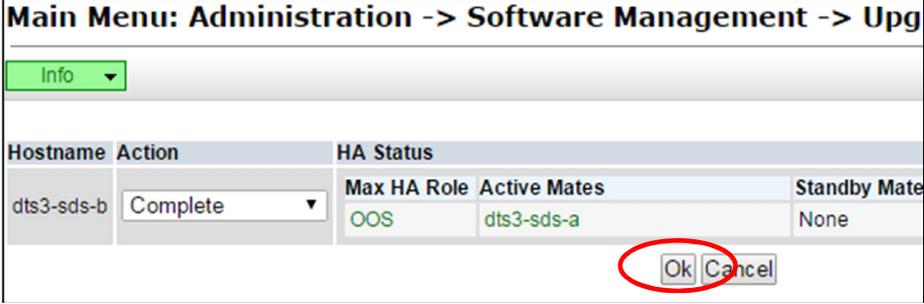
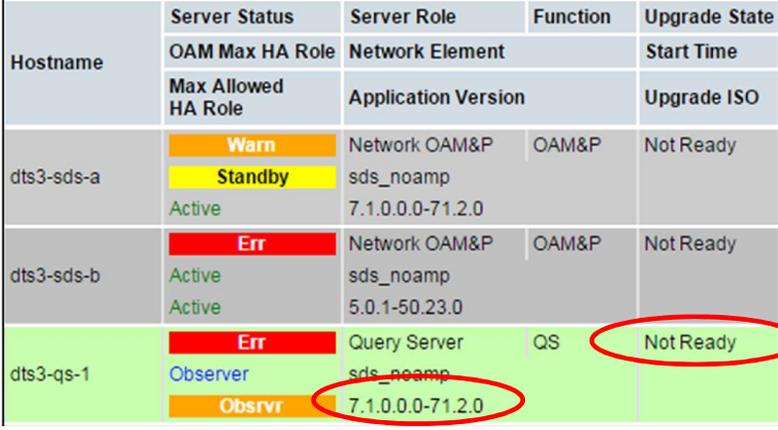
Appendix C: Upgrade Server on SDS 5.0

Step	Procedure	Result																																				
<p>6.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>The user is returned to the...</p> <p><b>Main Menu</b>                      → Administration                      → Software Management                      → Upgrade</p> <p>...screen as shown on the right.</p> <p>1) Scroll to the row containing the <b>hostname</b> of the server to be upgraded.</p> <p>2) Verify that the <b>Upgrade State</b> shows “<b>Upgrading</b>”.</p>	 <p><b>Main Menu: Administration -&gt; Software Management -&gt; Upgrade</b></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>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>dts3-sds-a</td> <td>Err Active Active</td> <td>Network OAM&amp;P sds_noamp 5.0.1-50.23.0</td> <td>OAM&amp;P</td> <td>Not Ready</td> </tr> <tr> <td>dts3-sds-b</td> <td>Err Standby Standby</td> <td>Network OAM&amp;P sds_noamp 5.0.1-50.23.0</td> <td>OAM&amp;P</td> <td>Ready</td> </tr> <tr style="background-color: #e0ffe0;"> <td>dts3-qs-1</td> <td>Unk OOS Obsrvr</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&amp;P sds_dr_noamp 5.0.1-50.23.0</td> <td>OAM&amp;P</td> <td>Not Ready</td> </tr> </tbody> </table> <p>Backup ISO Cleanup Prepare Initiate Complete Accept Report</p> <p><b>NOTE:</b> As a result of the server undergoing upgrade, several alarms related to “<b>DB Replication</b>” (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 Obsrvr	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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<p>7.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>1) Select...  <b>Main Menu</b>                      → Administration                      → Software Management                      → Upgrade</p> <p>2) The <b>Upgrade State</b> field should be <b>Upgrading</b></p> <p>3) The <b>Status Message</b> field should contain status <b>IN_PROGRESS_STATE</b></p>	 <p><b>Main Menu: Administration -&gt; Software Management -&gt; Upgrade</b></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> </thead> <tbody> <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> <tr> <td>dts3-sds-a</td> <td>Err Standby Active</td> <td>Network OAM&amp;P sds_noamp 5.0.1-50.23.0</td> <td>OAM&amp;P</td> <td>Not Ready</td> <td></td> </tr> <tr> <td>dts3-sds-b</td> <td>Err Active Active</td> <td>Network OAM&amp;P sds_noamp 5.0.1-50.23.0</td> <td>OAM&amp;P</td> <td>Not Ready</td> <td></td> </tr> <tr style="background-color: #e0ffe0;"> <td>dts3-qs-1</td> <td>Unk OOS Obsrvr</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 is 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 Obsrvr	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 is IN_PROGRESS_STATE
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Appendix C: Upgrade Server on SDS 5.0

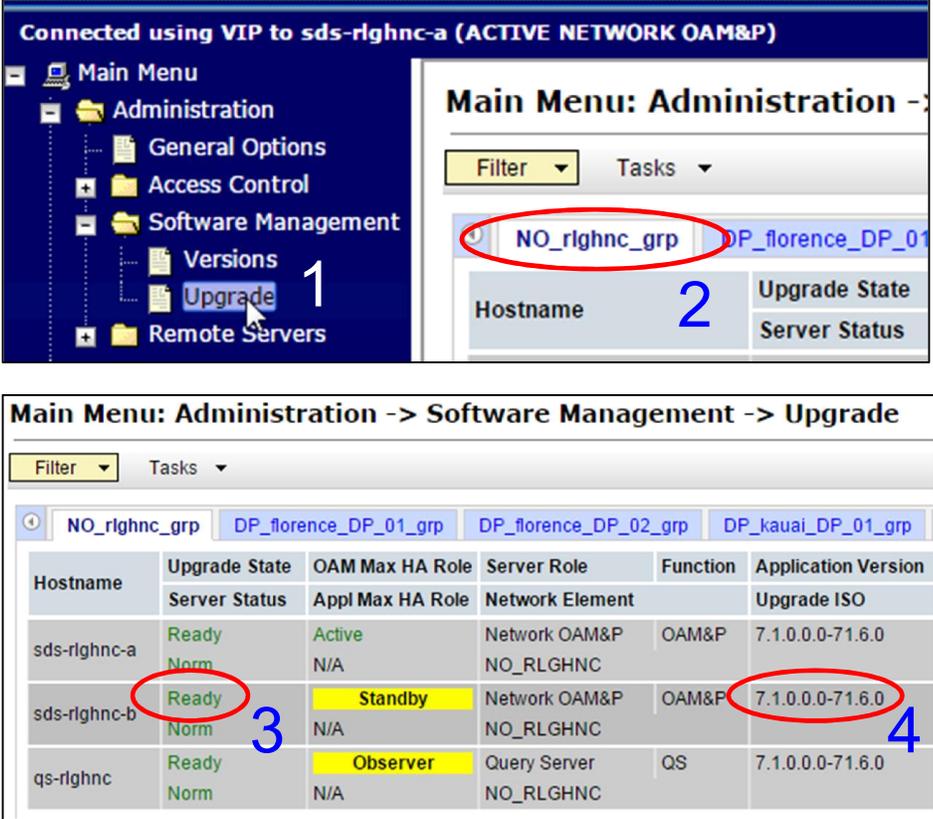
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8. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>When the server initiates a post-upgrade reboot, the <b>Upgrade State</b> field should be <b>Upgrading</b></p>	<table border="1"> <thead> <tr> <th rowspan="4">Hostname</th> <th>Server Status</th> <th>Server Role</th> <th>Function</th> <th>Upgrade State</th> <th>Status Message</th> </tr> <tr> <th>OAM Max HA Role</th> <th colspan="2">Network Element</th> <th>Start Time</th> <th>Finish Time</th> </tr> <tr> <th>Max Allowed HA Role</th> <th colspan="2">Application Version</th> <th colspan="2">Upgrade ISO</th> </tr> <tr> <th></th> <th></th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>dts3-sds-a</td> <td>Active Active</td> <td>Network OAM&amp;P sds_noamp</td> <td>OAM&amp;P</td> <td>Not Ready</td> <td></td> </tr> <tr> <td>dts3-sds-b</td> <td>Unk OOS Standby</td> <td>Network OAM&amp;P sds_noamp</td> <td>OAM&amp;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_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	Active Active	Network OAM&P sds_noamp	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_71.2.0-x86_64.iso
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9. <input type="checkbox"/>	<p><b>Primary SDS 5.0 Site VIP:</b></p> <p>After the post-upgrade reboot has been completed, the <b>Upgrade State</b> field should be <b>Success</b></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> <th>Status Message</th> </tr> <tr> <th>OAM Max HA Role</th> <th colspan="2">Network Element</th> <th>Start Time</th> <th>Finish Time</th> </tr> <tr> <th>Max Allowed HA Role</th> <th colspan="2">Application Version</th> <th colspan="2">Upgrade ISO</th> </tr> <tr> <th></th> <th></th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>dts3-sds-a</td> <td>Active Active</td> <td>Network OAM&amp;P sds_noamp</td> <td>OAM&amp;P</td> <td>Not Ready</td> <td></td> </tr> <tr> <td>dts3-sds-b</td> <td>Unk OOS Standby</td> <td>Network OAM&amp;P sds_noamp</td> <td>OAM&amp;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_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	Active Active	Network OAM&P sds_noamp	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_71.2.0-x86_64.iso
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10. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>1) Select...</p> <p><b>Main Menu</b> → Administration → Software Management → Upgrade</p> <p>2) Select the row containing the <b>hostname</b> of the upgraded server</p> <p>3) Click the <b>“Complete”</b> dialogue button</p>	<p><b>Main Menu: Administration -&gt; Software Management -&gt; Upg</b></p> <p>Filter Tasks</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>dts3-sds-b</td> <td>Unk OOS Standby</td> <td>Network OAM&amp;P sds_noamp</td> <td>OAM&amp;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 <b>Complete</b> 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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Appendix C: Upgrade Server on SDS 5.0

Step	Procedure	Result																														
<p>11.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>The user presented with the <b>Upgrade [Complete]</b> screen.</p> <p>Click an “Ok” dialogue button.</p>	 <p><b>Main Menu: Administration -&gt; Software Management -&gt; Upg</b></p> <p>Info ▾</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Action</th> <th>HA Status</th> <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></td> <td>dts3-sds-a</td> <td>None</td> </tr> </tbody> </table> <p>Ok Cancel</p>	Hostname	Action	HA Status	Max HA Role	Active Mates	Standby Mate	dts3-sds-b	Complete ▾	OOS		dts3-sds-a	None																		
Hostname	Action	HA Status	Max HA Role	Active Mates	Standby Mate																											
dts3-sds-b	Complete ▾	OOS		dts3-sds-a	None																											
<p>12.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>The user presented with the <b>Upgrade</b> screen.</p> <p>1) Verify that the <b>Application Version</b> now shows the <b>&lt;target_release&gt;</b>.</p> <p>2) Verify that the <b>Upgrade State</b> shows “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> </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>dts3-sds-a</td> <td>Warn Standby Active</td> <td>Network OAM&amp;P sds_noamp 7.1.0.0.0-71.2.0</td> <td>OAM&amp;P</td> <td>Not Ready</td> </tr> <tr> <td>dts3-sds-b</td> <td>Err Active Active</td> <td>Network OAM&amp;P sds_noamp 5.0.1-50.23.0</td> <td>OAM&amp;P</td> <td>Not Ready</td> </tr> <tr> <td>dts3-qs-1</td> <td>Err Observer Obsrvr</td> <td>Query Server sds_noamp 7.1.0.0.0-71.2.0</td> <td>QS</td> <td>Not Ready</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 Standby Active	Network OAM&P sds_noamp 7.1.0.0.0-71.2.0	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	Err Observer Obsrvr	Query Server sds_noamp 7.1.0.0.0-71.2.0	QS	Not Ready
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<p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>																																

### APPENDIX D. SERVER UPGRADE ADMINISTRATION ON SDS 7.X

#### Appendix D: Server Upgrade Administration on SDS 7.x

Step	Procedure	Result																														
1.	Using <b>VIP</b> address, access the <b>Primary SDS NOAM GUI</b> .	<ul style="list-style-type: none"> <li>Using <b>VIP</b> address, access the <b>Primary SDS NOAM GUI</b> as described in <b>Appendix A</b>.</li> </ul>																														
2.	<p><b>Primary SDS NOAM VIP (GUI):</b></p> <p>1) Select...</p> <p><b>Main Menu</b>                      → Administration                      → Software Management                      → Upgrade</p> <p>2) Select <b>Server Group</b> tab for the server(s) to be upgraded.</p> <p>3) Verify that the “<b>Upgrade State</b>” shows “<b>Ready</b>” for the server(s) to be upgraded.</p> <p>4) Verify the <b>Application Version</b> value for server(s) is the source software release version</p>	 <p><b>Main Menu: Administration -&gt; Software Management -&gt; Upgrade</b></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></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</td> <td>Network OAM&amp;P NO_RLGHNC</td> <td>OAM&amp;P</td> <td>7.1.0.0.0-71.6.0</td> </tr> <tr> <td>sds-rlghnc-b</td> <td>Ready Norm</td> <td>Standby</td> <td>Network OAM&amp;P NO_RLGHNC</td> <td>OAM&amp;P</td> <td>7.1.0.0.0-71.6.0</td> </tr> <tr> <td>qs-rlghnc</td> <td>Ready Norm</td> <td>Observer</td> <td>Query Server NO_RLGHNC</td> <td>QS</td> <td>7.1.0.0.0-71.6.0</td> </tr> </tbody> </table>	Hostname	Upgrade State	OAM Max HA Role	Server Role	Function	Application Version		Server Status	Appl Max HA Role	Network Element		Upgrade ISO	sds-rlghnc-a	Ready Norm	Active	Network OAM&P NO_RLGHNC	OAM&P	7.1.0.0.0-71.6.0	sds-rlghnc-b	Ready Norm	Standby	Network OAM&P NO_RLGHNC	OAM&P	7.1.0.0.0-71.6.0	qs-rlghnc	Ready Norm	Observer	Query Server NO_RLGHNC	QS	7.1.0.0.0-71.6.0
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qs-rlghnc	Ready Norm	Observer	Query Server NO_RLGHNC	QS	7.1.0.0.0-71.6.0																											
<div style="display: flex; align-items: center;">  <ul style="list-style-type: none"> <li>If executing <b>Server Group “Auto Upgrade”</b>, then <b>SKIP</b> to <b>Step 4</b> of this procedure.                             <ul style="list-style-type: none"> <li>Allowed for <b>DR NOAM &amp; SOAM</b> Server Groups only!</li> </ul> </li> <li>If executing <b>Single Server (or multi-selected) Upgrade</b>, then continue with <b>Step 3</b> of this procedure.                             <ul style="list-style-type: none"> <li>Required for <b>Primary NOAM &amp; DP</b> Server Groups.</li> </ul> </li> </ul> </div>																																

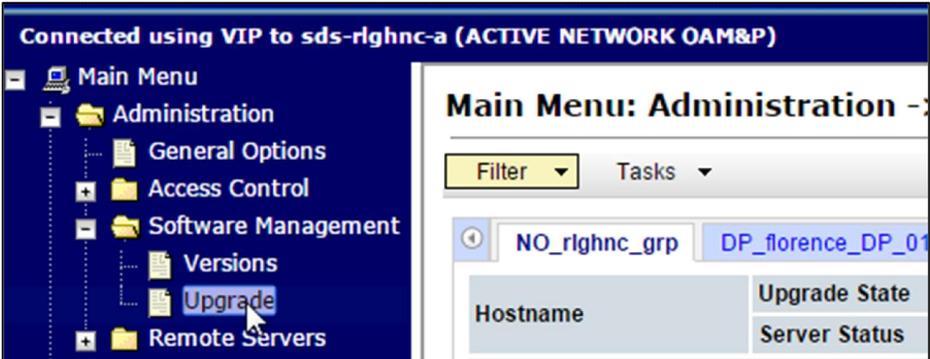
Appendix D: Server Upgrade Administration on SDS 7.x

Step	Procedure	Result																																				
<p>3.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p><b>This Step:</b>  <b>Single Server (or multi-selected) Upgrade only!</b></p> <p>1) Use the [CTRL] key to <b>multi-select</b> individually server(s) for upgrade.</p> <p>2) Ensure the “<b>Upgrade Server</b>” dialogue button is enabled.</p> <p>3) Click the “<b>Upgrade Server</b>” dialogue button.</p> <p>4) The user should be presented with the <b>Upgrade [Initiate]</b> screen</p> <p>5) Select the <b>Upgrade ISO</b> file to be used in the server upgrade.</p> <p>6) Click the “<b>Ok</b>” dialogue button to start the upgrade.</p> <p>7) <b>SKIP</b> to <b>Step 5</b> of this procedure.</p> <p><b>NOTE:</b> During server upgrade, multiple alarms are expected and can be safely ignored. These include but are not limited to the following:</p> <p><b>Event ID:</b> 10073, 10075, 31101, 31102, 31106, 31107, 31114 &amp; 31283</p>	<div> <p><b>Main Menu: Administration -&gt; Software Management -&gt; Upgrade</b></p> <p>Filter Tasks</p> <p>NO_rlgnc_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&amp;P NO_RLGHNC</td> <td>OAM&amp;P</td> <td>7.1.0.0.0-71.7.0</td> </tr> <tr> <td>sds-rlghnc-b</td> <td>Ready Norm</td> <td><b>Standby</b> N/A</td> <td>Network OAM&amp;P NO_RLGHNC</td> <td>OAM&amp;P</td> <td>7.1.0.0.0-71.7.0</td> </tr> <tr> <td>qs-rlghnc</td> <td>Ready Norm</td> <td><b>Observer</b> 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 <b>Upgrade Server</b> Accept Report Report All</p> <p>3 Initiate upgrade on the selected server(s) or all servers in the active se</p> </div> <div> <p><b>Main Menu: Administration -&gt; Softw. Management -&gt; Upgrade [I</b></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><b>Upgrade Settings</b></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 <b>Ok</b> 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	<b>Standby</b> N/A	Network OAM&P NO_RLGHNC	OAM&P	7.1.0.0.0-71.7.0	qs-rlghnc	Ready Norm	<b>Observer</b> 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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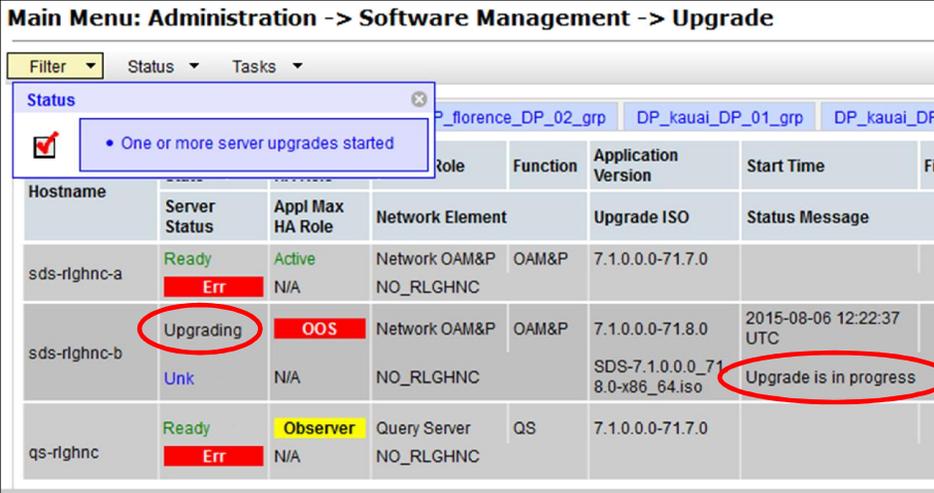
Appendix D: Server Upgrade Administration on SDS 7.x

Step	Procedure	Result																																										
<p>4.</p> <p><input type="checkbox"/></p> <p><b>Primary SDS NOAM VIP:</b></p> <p><b>This Step: Server Group "Auto Upgrade" only!</b></p> <p><b>!! WARNING !!</b></p> <p><b>DO NOT</b> use the "Auto Upgrade" option when upgrading the "Primary" SDS NOAM Server Group.</p> <p>1) <b>DO NOT</b> select any servers if using <b>Auto Upgrade</b> for the <b>Server Group</b>.</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 <b>Upgrade [Initiate]</b> screen</p> <p>5) Select "Bulk" mode.</p> <p>6) Select the <b>Upgrade ISO</b> file to be used in the server upgrade.</p> <p>7) Click the "Ok" dialogue button to start the upgrade.</p> <p><b>NOTE:</b> When Auto Upgrade "Bulk" mode is selected, all non-Active servers will be upgraded first (e.g. Standby, Query Server, etc.).</p> <p><b>NOTE:</b> During server upgrade, multiple alarms are expected and can be safely ignored. These include but are not limited to the following:</p> <p><b>Event ID:</b> 10073, 10075, 31101, 31102, 31106, 31107, 31114 &amp; 31283</p>		<div> <p><b>Main Menu: Administration -&gt; Software Management -&gt; Upgrade</b></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&amp;P NO_MRSVNC</td> <td>DR OAM&amp;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&amp;P NO_MRSVNC</td> <td>DR OAM&amp;P</td> <td>7.1.0.0.0-71.7.0</td> </tr> </tbody> </table> <p>Backup Backup All <b>Auto Upgrade</b> Accept Report Report All</p> <p>3 Initiate upgrade on the selected server(s) or all servers in the active server group</p> </div> <div> <p><b>Main Menu: Administration -&gt; Software Management -&gt; Upgr</b></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><b>Upgrade Settings</b></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>5</p> <p>6</p> <p>7</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"> <li>If upgrading the formerly <b>“Active” Primary SDS NOAM server</b> (i.e. 2<sup>nd</sup> NOAM to be upgraded), then continue with <b>Step 5</b> of this procedure.</li> <li>Otherwise, <b>SKIP to Step 10</b> of this procedure.</li> </ul>	
<p>5.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b> If upgrading the <b>“Active” Primary SDS NOAM Server</b>, an <b>HA Switchover</b> will occur at this time.</p>	<ul style="list-style-type: none"> <li>The user's <b>GUI session</b> will end as the <b>“Active” Primary SDS Server</b> goes through <b>HA Switchover</b> and becomes the <b>“Standby” server</b>.</li> </ul>
<p>6.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b> Use the <b>[Logout]</b> link in the top right of the browser to logout of the <b>SDS NOAM GUI</b>.</p>	
<p>7.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b> <b>Clear the browser cache.</b></p> <p><b>!! IMPORTANT !!</b> <b>DO NOT proceed to the next step until the browser cache has been cleared.</b></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"> <li>1) Simultaneously hold down the <b>[Ctrl]</b>, <b>[Shift]</b> and <b>[Delete]</b> keys (most Web browsers).</li> <li>2) Select the appropriate object types to delete from the cache via the pop-up dialog. (e.g. <b>“Temporary Internet Files”</b>, <b>“Cache”</b> or <b>“Cached images and files”</b>, etc.). Other browsers may label these objects differently.</li> <li>3) <b>Clear the cached data.</b></li> </ol>
<p>8.</p> <input type="checkbox"/>	<p>Using <b>VIP</b> address, access the <b>Primary SDS NOAM GUI</b>.</p>	<ul style="list-style-type: none"> <li>Using <b>VIP</b> address, access the <b>Primary SDS NOAM GUI</b> as described in <b>Appendix A</b>.</li> </ul>
<p>9.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b> 1) Select... <b>Main Menu</b> → <b>Administration</b> → <b>Software Management</b> → <b>Upgrade</b></p>	

Appendix D: Server Upgrade Administration on SDS 7.x

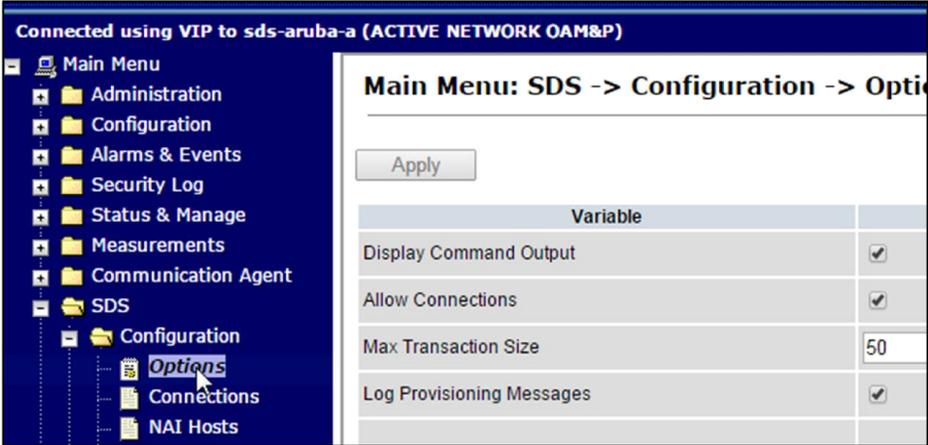
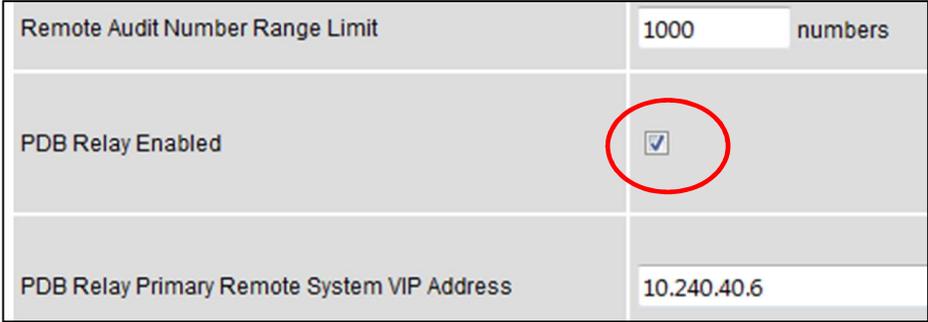
Step	Procedure	Result																								
<p>10.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>The user should now monitor the “<b>Upgrade State</b>” and the “<b>Status Message</b>” for the servers being upgraded.</p>	<p><b>Main Menu: Administration -&gt; Software Management -&gt; Upgrade</b></p> 																								
<p>11.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>As <b>Upgrade</b> executes for each server, the user will observe the following states.</p> <p><b>NOTE:</b> 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>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	Upgraded server to new ISO	7.	Accept or Reject	Success: Server upgrade is complete
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<p><b>!!! IMPORTANT !!!</b></p>  <ul style="list-style-type: none"> <li>Unless executing parallel upgrades, <b>DO NOT PROCEED</b> until an “<b>Upgrade State</b>” of “<b>Accept or Reject</b>” is received.</li> <li>If an Upgrade failure is experienced (i.e. <b>Upgrade State = Failed</b>), refer to <b>Appendix J: Recovering from a Failed Upgrade</b>.</li> </ul>																										
<p>12.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></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"> <li><b>Event ID (s): 32532 (Server Upgrade Pending Accept/Reject)</b></li> </ul>																								
<p>13.</p> <p><input type="checkbox"/></p>	<p><b>Return to the referring Procedure.</b></p>	<ul style="list-style-type: none"> <li>The user should now return to the <b>Procedure/Step</b> which referred them to <b>Appendix D (Server Upgrade Administration on SDS 7.x)</b>.</li> </ul>																								
<p style="text-align: center;"><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>																										

## APPENDIX E. BACKOUT OF A SINGLE SERVER

### Appendix E: Backout of a Single Server

Step	Procedure	Result
1. <input type="checkbox"/>	<b>Primary SDS NOAM VIP:</b> Ensure that the server to be downgraded is in the "Accept or Reject" state.	<ol style="list-style-type: none"> <li>1. Select the [Main Menu: Administration → Software Management → Upgrade] screen.</li> <li>2. Select the <b>tab</b> containing the server(s) to be backed out.</li> <li>3. Verify its Upgrade State is "Accept or Reject".</li> </ol>
2. <input type="checkbox"/>	<b>Primary SDS NOAM VIP:</b> Set the <b>Max Allowed HA Role</b> to "Standby".	<ol style="list-style-type: none"> <li>1. Select the [Main Menu: Status &amp; Manage → HA] screen; <i>the HA status screen displays.</i></li> <li>2. Press the "Edit" button.</li> <li>3. Select the server(s) to be backed out and choose a <b>Max Allowed HA Role</b> value of "Standby" (<i>unless it is a Query server, in which case the value should remain set to Observer</i>).</li> <li>4. Press the "Ok" button; <i>the HA status screen displays.</i> Verify that the <b>Max Allowed HA Role</b> is set to the values specified above.</li> </ol>
 <ul style="list-style-type: none"> <li>• If downgrading the "Active" Primary SDS NOAM server, then continue with <b>Step 3</b> of this procedure.</li> <li>• Otherwise, <b>SKIP</b> to <b>Step 13</b> of this procedure.</li> </ul>		
3. <input type="checkbox"/>	<b>Primary SDS NOAM VIP:</b> If downgrading the "Active" Primary SDS NOAM Server, an HA Switchover will occur at this time.	<ul style="list-style-type: none"> <li>• The user's GUI session will end as the "Active" Primary SDS Server goes through HA Switchover and becomes the "Standby" server.</li> </ul>
4. <input type="checkbox"/>	<b>Primary SDS NOAM VIP:</b> Use the [Logout] link in the top right of the browser to logout of the SDS NOAM GUI.	
5. <input type="checkbox"/>	<b>Primary SDS NOAM VIP:</b> <b>Clear the browser cache.</b>  <b>!! IMPORTANT !!</b> <b>DO NOT proceed to the next step until the browser cache has been cleared.</b>	<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"> <li>4) Simultaneously hold down the [Ctrl], [Shift] and [Delete] keys (<i>most Web browsers</i>).</li> <li>5) 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. <b>Clear the cached data.</b></li> </ol>

Appendix E: Backout of a Single Server

Step	Procedure	Result
6. <input type="checkbox"/>	Using <b>VIP</b> address, access the <b>Primary SDS NOAM GUI</b> .	<ul style="list-style-type: none"> <li>Using <b>VIP</b> address, access the <b>Primary SDS NOAM GUI</b> again as described in <b>Appendix A</b>.</li> </ul>
7. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP (GUI):</b> Select...</p> <p><u>Main Menu</u> → <b>SDS</b> → <b>Configuration</b> → <b>Options</b></p> <p>...as shown on the right.</p>	
8. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Locate the “<b>PDB Relay Enabled</b>” checkbox and determine if it is <b>CHECKED</b> or <b>NOT CHECKED</b>. Record the value</p>	 <p style="text-align: center;"><b>CHECKED (Yes/No)</b></p> <p><b>PDB Relay Enabled</b> _____</p>
<div style="display: flex; align-items: center;">  <ul style="list-style-type: none"> <li>• If the <b>PDB Relay Enabled</b> checkbox is <b>NOT CHECKED</b>, then <b>SKIP</b> to <b>Step 13</b> of this procedure.</li> <li>• If the <b>PDB Relay Enabled</b> checkbox is <b>CHECKED</b>, <b>CONTINUE</b> with <b>Step 9</b> of this procedure.</li> </ul> </div>		
9. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP (CLI):</b></p> <p>Using the <b>VIP</b> address, login to the “<b>Active</b>” <b>Primary SDS NOAM</b> with the <b>admusr</b> 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: &lt;admusr_password&gt;</pre>

Appendix E: Backout of a Single Server

Step	Procedure	Result
10. <input type="checkbox"/>	<b>Primary SDS NOAM VIP:</b> The user will be presented with output similar to that shown to the right.	<b>*** TRUNCATED OUTPUT ***</b> 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 ~]\$
11. <input type="checkbox"/>	<b>Primary SDS NOAM VIP:</b> Set the <b>pdbRelayTimeStamp</b> to "0".	[admusr@sds-rlghnc-b ~]\$ <b>iset -fvalue=0 ProvOptions where "var='pdbRelayMsgLogTimeStamp' "</b> [admusr@sds-rlghnc-b ~]\$
12. <input type="checkbox"/>	<b>Primary SDS NOAM VIP:</b> Exit the CLI for the "Active" Primary SDS NOAM.	[admusr@sds-rlghnc-b ~]\$ <b>exit</b> logout
13. <input type="checkbox"/>	<b>Primary SDS NOAM VIP (GUI):</b> Stop the software.	<ol style="list-style-type: none"> <li>1. Select the <b>[Main Menu: Status &amp; Manage → Server]</b> screen; <i>the Server status screen displays.</i></li> <li>2. Select the server(s) to be backed out and press the "Stop" button.</li> <li>3. Click "OK" to confirm the operation.</li> <li>4. Verify that the <b>Appl State</b> updates to "Disabled"</li> </ol>
14. <input type="checkbox"/>	<b>Primary SDS NOAM VIP:</b> Verify that the server(s) are <b>Backout Ready</b> .	<ol style="list-style-type: none"> <li>1. Reselect the <b>[Main Menu: Administration → Software Management → Upgrade]</b> screen.</li> <li>2. Reselect the tab of the server group containing the server(s) to be backed out. <b>NOTE: It might take a couple minutes for the grid to update.</b></li> </ol> <p>If the <b>Primary Active SDS</b> is at <b>7.1</b> release, then verify its Upgrade State is displayed as "Backout Ready"</p> <p>If the <b>Primary Active SDS</b> is at <b>5.0</b> release, then verify its Upgrade State is displayed as "Ready"</p> <p><b>NOTE: 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.</b></p>
15. <input type="checkbox"/>	<b>Server CLI:</b> <b>SSH</b> to the server(s) to be backed out.	Use your SSH client to connect to the server (ex. ssh, PuTTY):  Note: You must consult your own software client's documentation to learn how to launch a connection. For example:  <code>ssh &lt;server address&gt;</code>  <b>NOTE: If you do not have direct access to the XMI, then you must access the target server via a connection through the active NO. SSH to the active NO XMI first. Once you are logged into the NO; from there, SSH to the target server's XMI address.</b>
16. <input type="checkbox"/>	<b>Server CLI:</b> Login as user "admusr".	<code>login as: admusr</code> <code>password: &lt;enter password&gt;</code>

## Appendix E: Backout of a Single Server

Step	Procedure	Result
17. <input type="checkbox"/>	<b>Server CLI:</b> Execute the backout	Execute the backout using the reject script:  <pre>\$ sudo /var/TKLC/backout/reject</pre> <p>Output similar to that shown below will appear on the screen. Answer “y” to continue the backout.</p> <p><b>*** TRUNCATED OUTPUT ***</b></p> <pre>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</pre>
18. <input type="checkbox"/>	<b>Server CLI:</b> Backout proceeds followed by an <b>automatic reboot</b> .	Many informational messages will come across the terminal screen as the backout proceeds:  Finally, after reject is complete, the server will automatically <b>reboot</b> and the user will be automatically logged out.
19. <input type="checkbox"/>	<b>Server CLI:</b> <b>SSH</b> to the server(s) to be backed out.	After the reboot has completed, use your SSH client to reconnect to the server (ex. ssh, PuTTY):  Note: You must consult your own software client's documentation to learn how to launch a connection. For example:  <pre>ssh &lt;server address&gt;</pre> <p>NOTE: If you do not have direct access to the XMI, then you must access the target server via a connection through the active NO. SSH to the active NO XMI first. Once you are logged into the NO; from there, SSH to the target server's XMI address.</p>
20. <input type="checkbox"/>	<b>Server CLI:</b> Login as user “ <b>admusr</b> ”.	These commands are performed as admusr, and it is necessary to use sudo for some of the commands.  <pre>login as: admusr password: &lt;enter password&gt;</pre>

Appendix E: Backout of a Single Server

Step	Procedure	Result
<p>21.</p> <input type="checkbox"/>	<p><b>Server CLI:</b> Verify the Backout</p>	<p>Examine the upgrade logs in the directory <code>/var/TKLC/log/upgrade</code> and verify that no errors were reported:</p> <pre>\$ grep ERROR /var/TKLC/log/upgrade/upgrade.log</pre> <ol style="list-style-type: none"> <li>Examine the output of the above commands to determine if any errors were reported.</li> </ol> <p>Note: The following errors can be ignored:</p> <pre>DEBUG: 'iqd' command failed (is IDB running?)</pre> <p>and/or</p> <pre>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</pre> <ol style="list-style-type: none"> <li>If the backout was not successful because other errors were recorded in the logs, then contact Oracle Customer Care Center for further instructions.</li> <li>If the backout was successful (no errors or failures), then continue with the remaining steps.</li> </ol>
<p>22.</p> <input type="checkbox"/>	<p><b>Server CLI:</b> Restore the COMCOL Full DB/Run environment.</p> <p><b>NOTE:</b> <i>The COMCOL restore process may take several minutes to complete.</i></p>	<p>Execute the <code>backout_restore</code> 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><b>*** TRUNCATED OUTPUT ***</b></p> <pre>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.  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>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><b>Server CLI:</b> 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>

## Appendix E: Backout of a Single Server

Step	Procedure	Result
24. <input type="checkbox"/>	<b>Server CLI:</b> <b>SSH</b> to the server(s) which were backed out.	After the reboot has completed, use your SSH client to reconnect to the server (ex. ssh, PuTTY):  Note: You must consult your own software client's documentation to learn how to launch a connection. For example:  <code>ssh &lt;server address&gt;</code>  <b>NOTE:</b> <i>If you do not have direct access to the XMI, then you must 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>
25. <input type="checkbox"/>	<b>Server CLI:</b> 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: &lt;enter password&gt;</code>
26. <input type="checkbox"/>	<b>Server CLI:</b> Verify that the "httpd" service has restarted.	Verify services are have restarted:  1. If this is an NO or SO, verify httpd service is running.  <code>\$ sudo service httpd status</code>  2. Verify expected output displays httpd is running (the process IDs are variable so the actual number value can be ignored):  <code>httpd (pid xxxx) is running...</code>  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.
27. <input type="checkbox"/>	<b>Primary SDS NOAM VIP (GUI):</b> Verify the server(s) <b>Application Version</b> and <b>Upgrade State</b> .	1. Select the <b>[Main Menu: Administration → Software Management → Upgrade]</b> screen. 2. Select the <b>tab</b> containing the server(s) which were backed out. 3. Verify the <b>Application Version</b> value for this server has been backed out to the source release version. 4. Verify the <b>Upgrade State</b> .

Appendix E: Backout of a Single Server

Step	Procedure	Result
<div style="display: flex; align-items: center;">  <div> <p><b>For Primary Active SDS at release 7.1:</b></p> <ul style="list-style-type: none"> <li>○ If the <b>Upgrade State</b> is “Ready”, <b>SKIP</b> to <b>Step 34</b> of this procedure.</li> <li>○ If the <b>Upgrade State</b> is “Not Ready”, then proceed to <b>Step 28</b> of this procedure.</li> </ul> <p><b>For Primary Active SDS at release 5.0:</b> (i.e due to backout of the entire topology)</p> <ul style="list-style-type: none"> <li>○ If the <b>Upgrade State</b> is “Not Ready”, then <b>SKIP</b> to <b>Step 34</b> of this procedure.</li> <li>○ If the <b>Upgrade State</b> is “Ready”, then <b>SKIP</b> to <b>Step 31</b> of this procedure.</li> </ul> <p><b>NOTE:</b> The <b>Primary Active SDS</b> release can be seen on the <b>NOAM GUI</b> banner (via the <b>VIP</b>).</p>  </div> </div>		
<p>28.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p><b>(Primary Active SDS release 7.1)</b></p> <p>Set the <b>Max Allowed HA Role</b> to “Active”.</p>	<p>Due to backout being initiated from the command line instead of through the GUI, you will have to modify the backed out server so its <b>Upgrade State</b> moves to <b>Ready</b>.</p> <ol style="list-style-type: none"> <li>1. Select the <b>[Main Menu: Status &amp; Manage → HA]</b> screen; <i>the HA status screen displays.</i></li> <li>2. Press the “<b>Edit</b>” button.</li> <li>3. Select the backed out server(s) and choose a <b>Max Allowed HA Role</b> value of <b>Active</b> (unless it is a <b>Query server</b>, in which case the value should remain set to <b>Observer</b>).</li> <li>4. Press the “<b>Ok</b>” button; <i>the HA status screen displays.</i></li> <li>5. Verify that the <b>Max Allowed HA Role</b> is set to the values specified above.</li> </ol>
<p>29.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p><b>Restart</b> the software.</p>	<ol style="list-style-type: none"> <li>1. Select <b>[Main Menu: Status &amp; Manage → Server]</b> screen; <i>the Server status screen displays.</i></li> <li>2. If the server(s) which were backed out show an <b>Appl State</b> state of “<b>Enabled</b>”, <b>SKIP</b> to the next Step.</li> <li>3. If the server(s) which were backed out show an <b>Appl State</b> state of “<b>Disabled</b>”, select the server(s) press “<b>Restart</b>” button.</li> <li>4. Click “<b>OK</b>” to confirm the operation.</li> <li>5. Verify that the <b>Appl State</b> updates to “<b>Enabled</b>”.</li> </ol>
<p>30.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p><b>Verify the Upgrade State.</b></p>	<ol style="list-style-type: none"> <li>1. Select <b>[Main Menu: Administration → Software Management → Upgrade]</b> screen.</li> <li>2. Select the tab of the server group containing the server(s) which were backed out.</li> <li>3. Verify that the <b>Upgrade State</b> is now “<b>Ready</b>” (<i>it may take several seconds for the grid to update</i>).</li> <li>4. <b>SKIP</b> to <b>Step 34</b> of this procedure.</li> </ol>
<p>31.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p><b>(Primary Active SDS release 5.0)</b></p> <p><b>Stop</b> the software (if necessary).</p>	<p>Due to backout being initiated from the command line instead of through the GUI, you may have to modify the <b>Upgrade State</b> of the backed out server(s) to achieve a state of “<b>Not Ready</b>”.</p> <ol style="list-style-type: none"> <li>1. Select <b>[Main Menu: Status &amp; Manage → Server]</b> screen; <i>the Server Status screen displays.</i></li> <li>2. If the server(s) which were backed out show an <b>Appl State</b> of “<b>Enabled</b>”, then select the server(s) and press the <b>Stop</b> button.</li> </ol>
<p>32.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Verify the server(s) <b>Upgrade State</b>.</p>	<ol style="list-style-type: none"> <li>1. Select <b>[Main Menu: Administration → Software Management → Upgrade]</b> screen; <i>the Upgrade Administration screen displays.</i></li> <li>2. If the server(s) which were backed out show an <b>Upgrade State</b> is “<b>Not Ready</b>”, <b>SKIP</b> to <b>Step 34</b> of this procedure.</li> </ol>

Appendix E: Backout of a Single Server

Step	Procedure	Result
<p>33.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>“Complete” the backout action <i>(if necessary)</i>.</p>	<ol style="list-style-type: none"> <li>1. If the server(s) which were backed out show an <b>Upgrade State</b> of “Ready” or “Success”, then</li> <li>2. Select the server(s) which were backed out and press the “Complete” button.</li> <li>3. The <b>Upgrade [Complete]</b> screen will appear. Leave the Action set to its default value of “Complete”.</li> <li>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></li> </ol> <p>The user may see the following SOAP error appear in the GUI banner.</p> <p style="text-align: center;">SOAP error while clearing upgrade status of hostname=[frame10311b6] ip=[172.16.1.28]</p> <p><b>NOTE:</b> <i>It is safe to ignore this error message.</i></p>
<p>34.</p>	<p>Backout has been completed.</p>	<ul style="list-style-type: none"> <li>• Return to the referring procedure.</li> </ul>
<p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>		

## 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** Incremental upgrades.

 <b>STOP !</b>	<p><b>Before executing this procedure...</b></p> <ol style="list-style-type: none"> <li>1. Please login to the <b>“My Oracle Support” (MOS)</b> website  <i>See <b>Appendix K: Accessing My Oracle Support (MOS)</b> if assistance is needed.</i></li> <li>2. From the <b>Dashboard</b>, click on the <b>“Patches &amp; Updates”</b> tab.</li> <li>3. Search for <b>“Patch 20513402”</b> (<i>SDS 5.0 Patch for Bug 20418367</i>)</li> <li>4. Download the patch and replace the <b>“/usr/TKLC/sds/bin/lv50fix”</b> script on the <b>“Active” Primary SDS NOAM</b> server.</li> </ol>
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### Appendix F: Verifying Shared Segments and Logical Volumes

Step	Procedure	Result
1. <input type="checkbox"/>	<p><b>Primary SDS VIP (SSH):</b></p> <p>To validate <i>all</i> servers, login to the Primary SDS Active server</p>	<ul style="list-style-type: none"> <li>• Run this command to validate <i>all</i> servers:</li> </ul> <pre># /usr/TKLC/sds/bin/lv50fix validate all</pre> <p><b>NOTE:</b> <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>
2. <input type="checkbox"/>	<p><b>Primary SDS VIP (SSH):</b></p> <p>When validating <i>all</i> 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: filemgmt 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/filemgmt percent Used: 1 percent is no more than 99 percent  <b>*** TRUNCATED OUTPUT ***</b></pre>

Step	Procedure	Result
<p>3.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP (SSH):</b></p> <p>The user should review the <b>“Validation:”</b> summary which appears at the end of the output and report any <b>FAILED:</b> or <b>“partially done”</b> server to My Oracle Support (MOS) for resolution.</p>	<p style="text-align: center;"><b>*** TRUNCATED OUTPUT ***</b></p> <pre> 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).  <b>Validation: FAILED: 6 servers NOT ready for changes</b> (and also have ready for update: 0 with initial values, 5 already updated, and <b>3 partially done</b> (no harm to re-do))                     </pre>
<p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>		

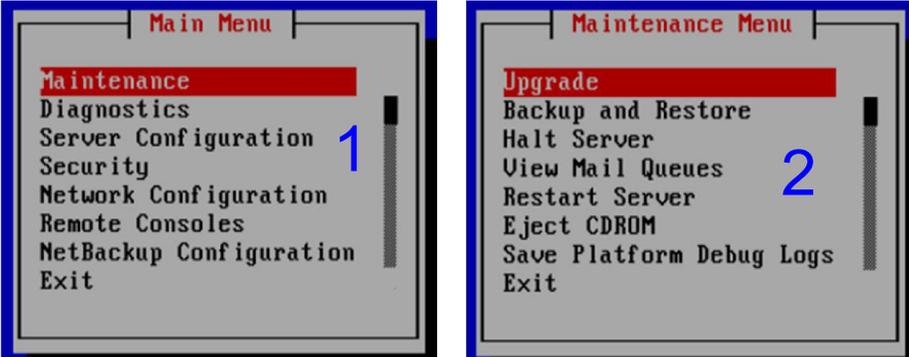
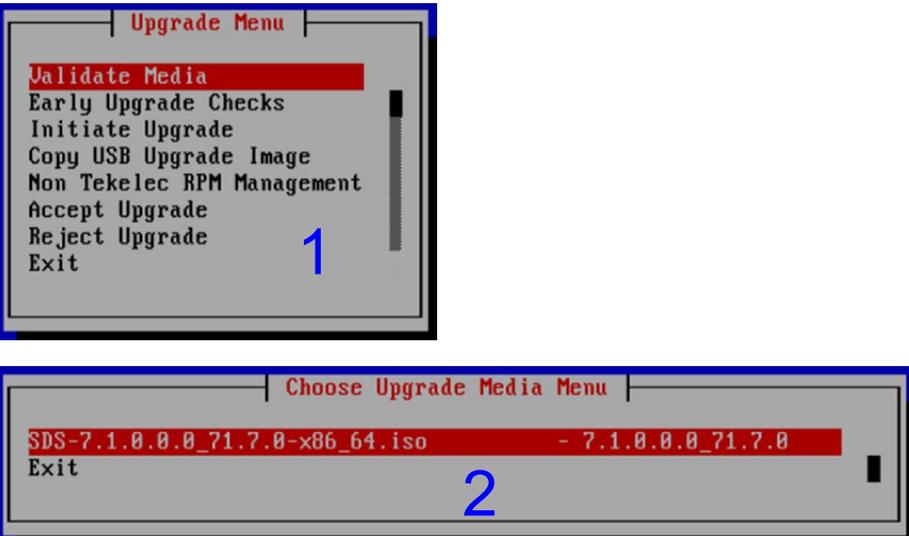
## APPENDIX G. MANUALLY PERFORMING ISO VALIDATION

**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/filemgmt/`, `/var/TKLC/db/filemgmt/isos/` or `/var/TKLC/upgrade/` directory.

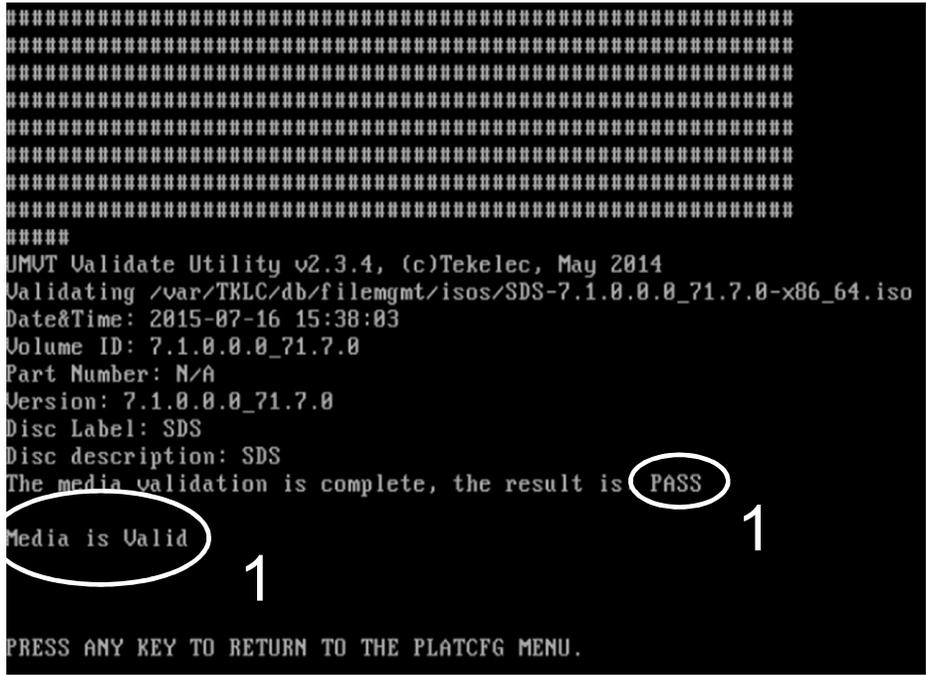
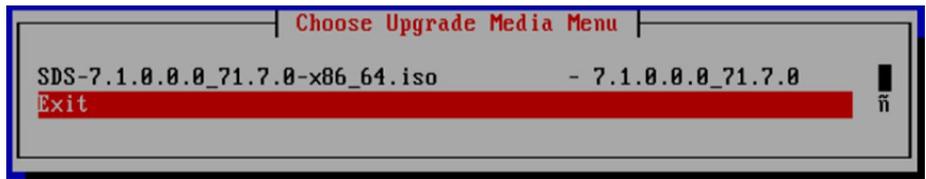
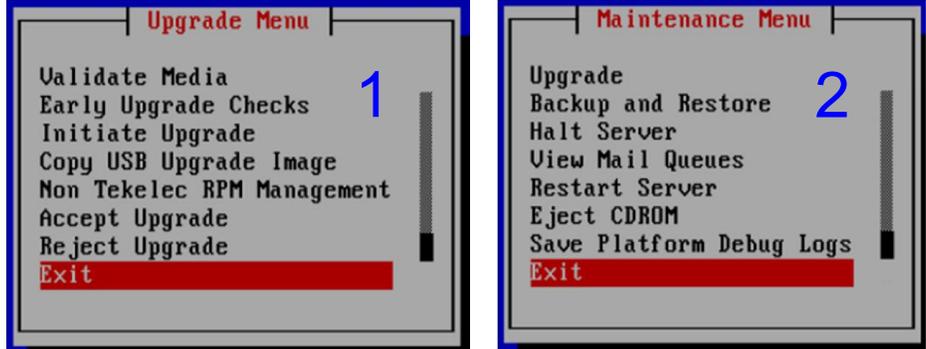
### Appendix G: Manually Performing ISO Validation

Step	Procedure	Result
1. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP (CLI):</b></p> <p>Using the <b>VIP</b> address, login to the <b>“Active” Primary SDS NOAM</b> with the <b>admusr</b> 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: <b>admusr</b> Password: <b>&lt;admusr_password&gt;</b></pre>
2. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>The user will be presented with output similar to that shown to the right.</p>	<pre>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-rlghnc-a ~]\$</pre>
3. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Verify that the ISO file is present in the <code>/var/TKLC/upgrade/</code> directory.</p> <p>If the ISO file to be validated is present in the output then <b>SKIP</b> to <b>Step 5</b> of this procedure.</p> <p>Otherwise, continue to the next step.</p>	<pre>[admusr@sds-rlghnc-a ~]\$ <b>ls /var/TKLC/upgrade/</b> SDS-7.1.0.0.0_71.11.0-x86_64.iso [admusr@sds-rlghnc-a ~]\$</pre>
4. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p><b>Copy</b> the ISO file to the <code>/var/TKLC/upgrade/</code> directory.</p>	<pre>[admusr@sds-rlghnc-a ~]\$ <b>cp -p /var/TKLC/db/filemgmt/SDS- 7.1.0.0.0_71.11.0-x86_64.iso /var/TKLC/upgrade/</b> [admusr@sds-rlghnc-a ~]\$</pre>
5. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Become the <b>“platcfg”</b> user using the <b>“su”</b> command.</p> <p>For password information, refer to <b>Table 4 (Logins, Passwords and Site Information)</b> if necessary.</p>	<pre>[admusr@sds-rlghnc-a ~]\$ <b>su - platcfg</b> Password: <b>&lt;platcfg_password&gt;</b></pre>

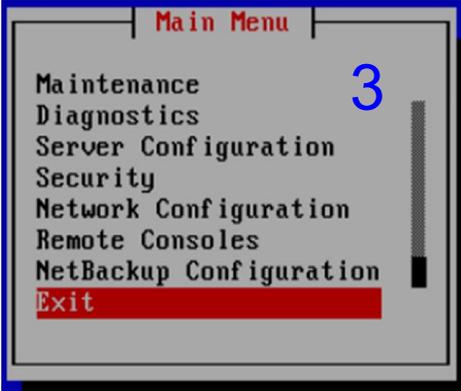
Appendix G: Manually Performing ISO Validation

Step	Procedure	Result
<p>6.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>1) From the <b>platcfg [Main Menu]</b>, select the <b>“Maintenance”</b> menu option and press the <b>[ENTER]</b> key.</p> <p>2) From the <b>platcfg [Maintenance Menu]</b>, select the <b>“Upgrade”</b> menu option and press the <b>[ENTER]</b> key.</p>	
<p>7.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>1) From the <b>platcfg [Upgrade Menu]</b>, select the <b>“Validate Media”</b> menu option and press the <b>[ENTER]</b> key.</p> <p>2) From the <b>platcfg [Choose Upgrade Media Menu]</b>, select the target <b>ISO file</b> and press the <b>[ENTER]</b> key.</p>	

Appendix G: Manually Performing ISO Validation

Step	Procedure	Result
<p>8.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>1) Verify that the ISO Media is “Valid”.</p> <p>2) Press the [ENTER] key to return to the platcfg menu.</p>	
<p>9.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>From the platcfg [Choose Upgrade Media Menu], select the “Exit” menu option and press the [ENTER] key.</p>	
<p>10.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>1) From the platcfg [Main Menu], select the “Exit” menu option and press the [ENTER] key.</p> <p>2) From the platcfg [Maintenance Menu], select the “Exit” menu option and press the [ENTER] key.</p>	

Appendix G: Manually Performing ISO Validation

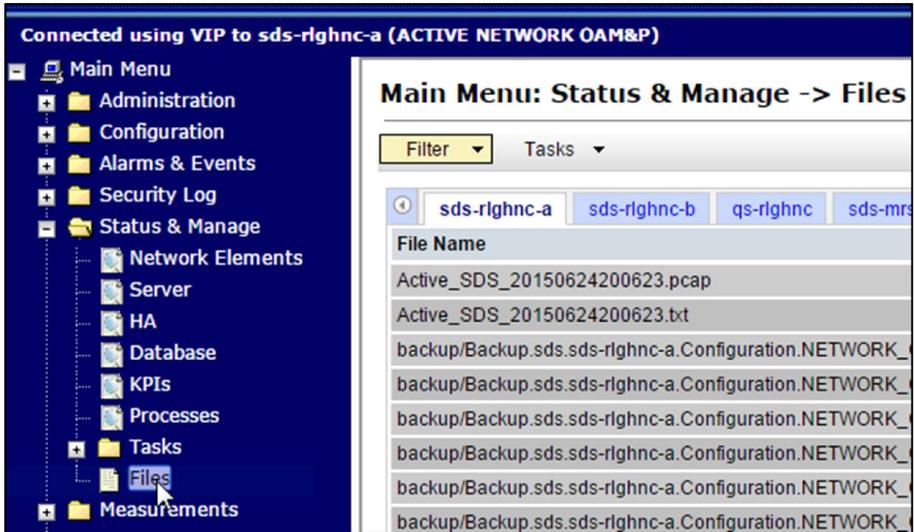
Step	Procedure	Result
	<p>3) From the <b>platcfg [Main Menu]</b>, select the “Exit” menu option and press the [ENTER] key.</p>	
<p>11. <input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b> Exit the CLI to the Active Primary SDS NOAM.</p>	<pre>[admusr@sds-rlghnc-a ~]\$ exit</pre>
<p>12. <input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

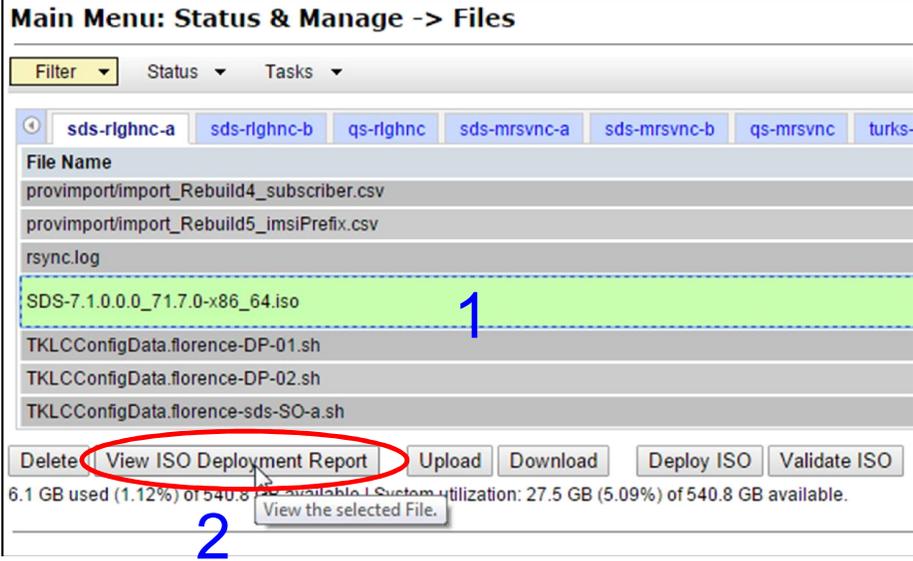
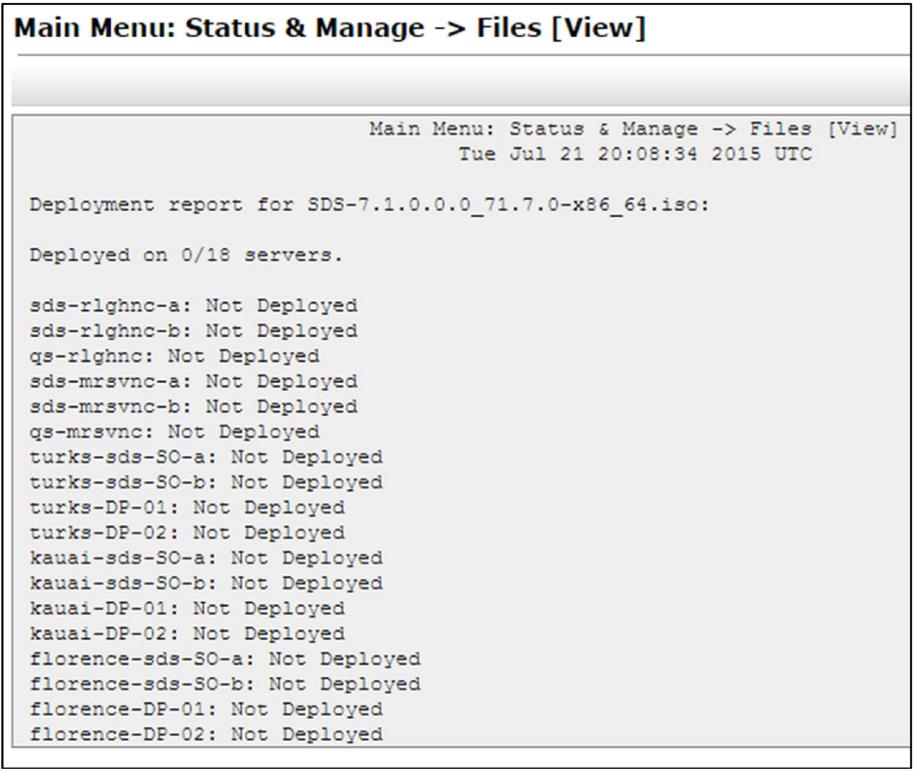
### Appendix H: Undeploying an ISO file (Post Upgrade Acceptance)

Step	Procedure	Result
1. <input type="checkbox"/>	Using <b>VIP</b> address, access the <b>Primary SDS NOAM GUI</b> .	<ul style="list-style-type: none"> <li>Using <b>VIP</b> address, access the <b>Primary SDS NOAM GUI</b> as described in <b>Appendix A</b>.</li> </ul>
2. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP (GUI):</b>                      Select...</p> <p><b>Main Menu</b>                      → <b>Status &amp; Manage</b>                      → <b>Files</b></p> <p>...as shown on the right.</p>	 <p>The screenshot shows the SDS NOAM GUI interface. The title bar reads "Connected using VIP to sds-rlghnc-a (ACTIVE NETWORK OAM&amp;P)". The left-hand navigation menu is expanded to show "Main Menu" with sub-items: Administration, Configuration, Alarms &amp; Events, Security Log, Status &amp; Manage, Network Elements, Server, HA, Database, KPIs, Processes, Tasks, Files (highlighted), and Measurements. The right-hand pane displays "Main Menu: Status &amp; Manage -&gt; Files" with a "Filter" dropdown and "Tasks" dropdown. Below these are tabs for "sds-rlghnc-a", "sds-rlghnc-b", "qs-rlghnc", and "sds-mrs". A list of files is shown, including "Active_SDS_20150624200623.pcap", "Active_SDS_20150624200623.txt", and several backup files.</p>

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

Step	Procedure	Result																																								
<p>3.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></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><b>Main Menu: Status &amp; Manage -&gt; Files</b> <span style="float: right;">Tue Jul 21</span></p> <p>Filter Tasks</p> <p>sds-rlghnc-a sds-rlghnc-b qs-rlghnc sds-mrsvnc-a turks-sds-SO-b turks-DP-01 turks-DP-02</p> <table border="1"> <thead> <tr> <th>File Name</th> <th>Size</th> <th>Type</th> <th>Timestamp</th> </tr> </thead> <tbody> <tr> <td>provimport/import_Rebuild3_msisdn.csv</td> <td>630 B</td> <td>csv</td> <td>2015-06-19 17:55:25 UTC</td> </tr> <tr> <td>provimport/import_Rebuild4_subscriber.csv</td> <td>785 B</td> <td>csv</td> <td>2015-06-19 17:55:25 UTC</td> </tr> <tr> <td>provimport/import_Rebuild5_imsiPrefix.csv</td> <td>167 B</td> <td>csv</td> <td>2015-06-19 17:55:26 UTC</td> </tr> <tr style="background-color: #e0ffe0;"> <td>isos/SDS-7.1.0.0.0_71.7.0-x86_64.iso</td> <td>852.1 MB</td> <td>iso</td> <td>2015-06-24 14:23:42 UTC</td> </tr> <tr> <td>Active_SDS_20150624200623.pcap</td> <td>2.6 KB</td> <td>pcap</td> <td>2015-06-24 20:08:57 UTC</td> </tr> <tr> <td>Active_SDS_20150624200623.txt</td> <td>46.2 KB</td> <td>txt</td> <td>2015-06-24 20:10:08 UTC</td> </tr> <tr> <td>TKLCConfigData.turks-sds-SO-a.sh</td> <td>4.9 KB</td> <td>sh</td> <td>2015-06-25 19:16:38 UTC</td> </tr> <tr> <td>TKLCConfigData.turks-sds-SO-b.sh</td> <td>4.9 KB</td> <td>sh</td> <td>2015-06-25 19:16:38 UTC</td> </tr> <tr> <td>TKLCConfigData.turks-DP-02.sh</td> <td>5.3 KB</td> <td>sh</td> <td>2015-06-25 19:16:38 UTC</td> </tr> </tbody> </table> <p>Report Upload Download <b>Undeploy ISO</b> Validate ISO</p> <p>available   System utilization: 27.5 GB (5.09%) of 540.9 GB available</p> <p>Deploys/Undeploys an ISO file.</p> <p>The page at https://10.240.241.66 says:</p> <p>Are you sure you want to undeploy isos/SDS-7.1.0.0.0_71.7.0-x86_64.iso?</p> <p>OK Cancel</p>	File Name	Size	Type	Timestamp	provimport/import_Rebuild3_msisdn.csv	630 B	csv	2015-06-19 17:55:25 UTC	provimport/import_Rebuild4_subscriber.csv	785 B	csv	2015-06-19 17:55:25 UTC	provimport/import_Rebuild5_imsiPrefix.csv	167 B	csv	2015-06-19 17:55:26 UTC	isos/SDS-7.1.0.0.0_71.7.0-x86_64.iso	852.1 MB	iso	2015-06-24 14:23:42 UTC	Active_SDS_20150624200623.pcap	2.6 KB	pcap	2015-06-24 20:08:57 UTC	Active_SDS_20150624200623.txt	46.2 KB	txt	2015-06-24 20:10:08 UTC	TKLCConfigData.turks-sds-SO-a.sh	4.9 KB	sh	2015-06-25 19:16:38 UTC	TKLCConfigData.turks-sds-SO-b.sh	4.9 KB	sh	2015-06-25 19:16:38 UTC	TKLCConfigData.turks-DP-02.sh	5.3 KB	sh	2015-06-25 19:16:38 UTC
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<p>4.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>The “Status” tab in the banner will display a confirmation message stating “ISO undeployment started”.</p>	<p><b>Main Menu: Status &amp; Manage -&gt; Files</b></p> <p>Filter Status Tasks</p> <p>sds-rlghnc-a sds-mrsvnc-b qs-mrsvnc</p> <table border="1"> <thead> <tr> <th>File Name</th> </tr> </thead> <tbody> <tr> <td>Active_SDS_20150624200623.pcap</td> </tr> <tr> <td>Active_SDS_20150624200623.txt</td> </tr> <tr> <td>backup/Backup.sds.sds-rlghnc-a.Configuration.NETWORK_OAMP.20150707_021510.AUTO.tar</td> </tr> <tr> <td>backup/Backup.sds.sds-rlghnc-a.Configuration.NETWORK_OAMP.20150708_021510.AUTO.tar</td> </tr> </tbody> </table> <p>Status</p> <ul style="list-style-type: none"> <li>ISO undeployment started.</li> </ul>	File Name	Active_SDS_20150624200623.pcap	Active_SDS_20150624200623.txt	backup/Backup.sds.sds-rlghnc-a.Configuration.NETWORK_OAMP.20150707_021510.AUTO.tar	backup/Backup.sds.sds-rlghnc-a.Configuration.NETWORK_OAMP.20150708_021510.AUTO.tar																																			
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Appendix H: Undeploying an ISO file (Post Upgrade Acceptance)

Step	Procedure	Result
<p>5.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP (GUI):</b></p> <p>Monitor the ISO undeployment status.</p> <p>1) Using the cursor, reselect the <b>ISO</b> file for the target <b>7.x</b> release.</p> <p>2) Click the <b>“View ISO Deployment Report”</b> dialogue button.</p>	 <p><b>Main Menu: Status &amp; Manage -&gt; Files</b></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><b>SDS-7.1.0.0.0_71.7.0-x86_64.iso</b> 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 2 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>6.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP (GUI):</b></p> <p>The user is presented with the <b>Deployment Report</b> indicating the <b>current status</b> of undeployment to all servers in the topology.</p> <p><b>Refresh</b> the report by clicking the <b>“Back”</b> dialogue button and repeating <b>Step 5</b> of this procedure until the <b>ISO</b> shows <b>“Not Deployed”</b> to all servers in the topology.</p>	 <p><b>Main Menu: Status &amp; Manage -&gt; Files [View]</b></p> <p>Main Menu: Status &amp; Manage -&gt; 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><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>		

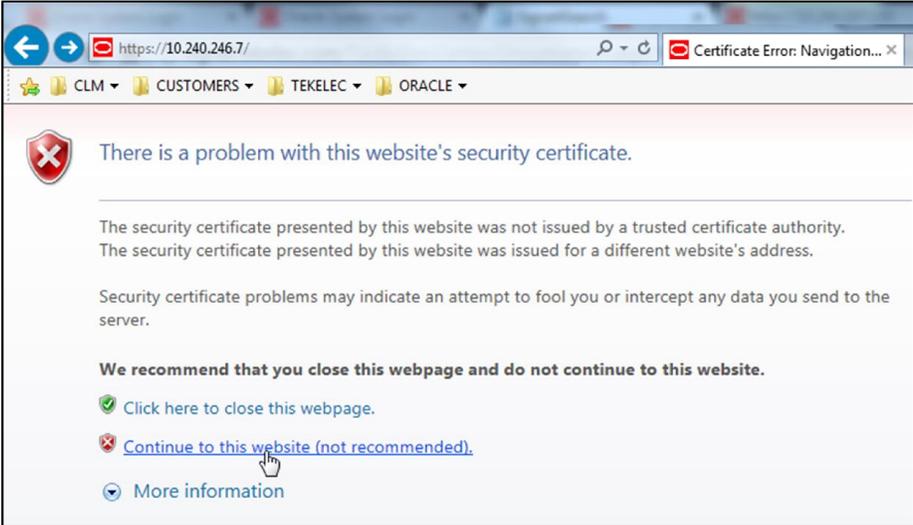
## APPENDIX I. ADDING THE SDS ISO TO THE PM&C SOFTWARE REPOSITORY

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

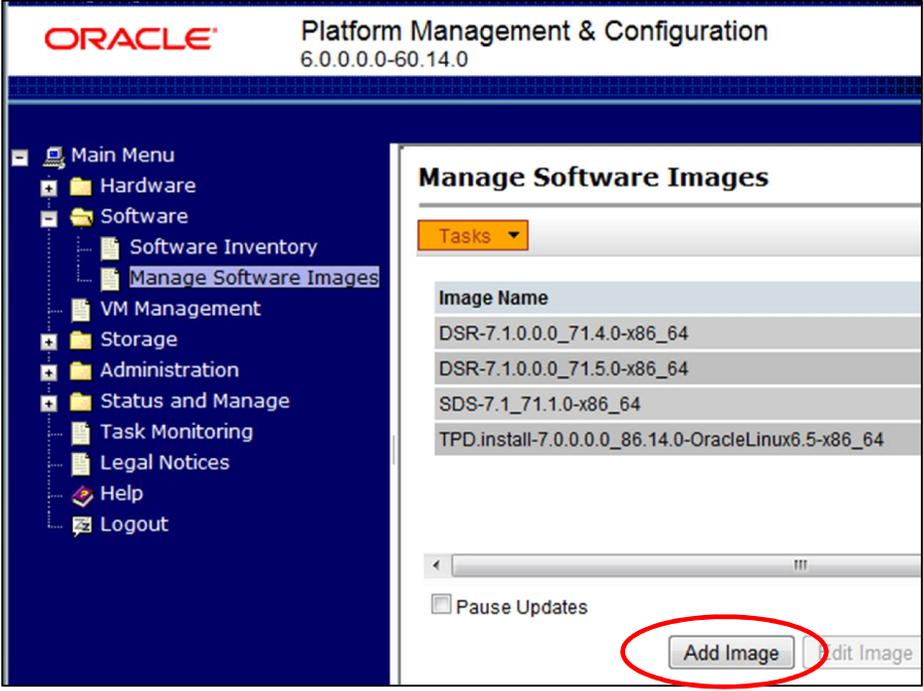
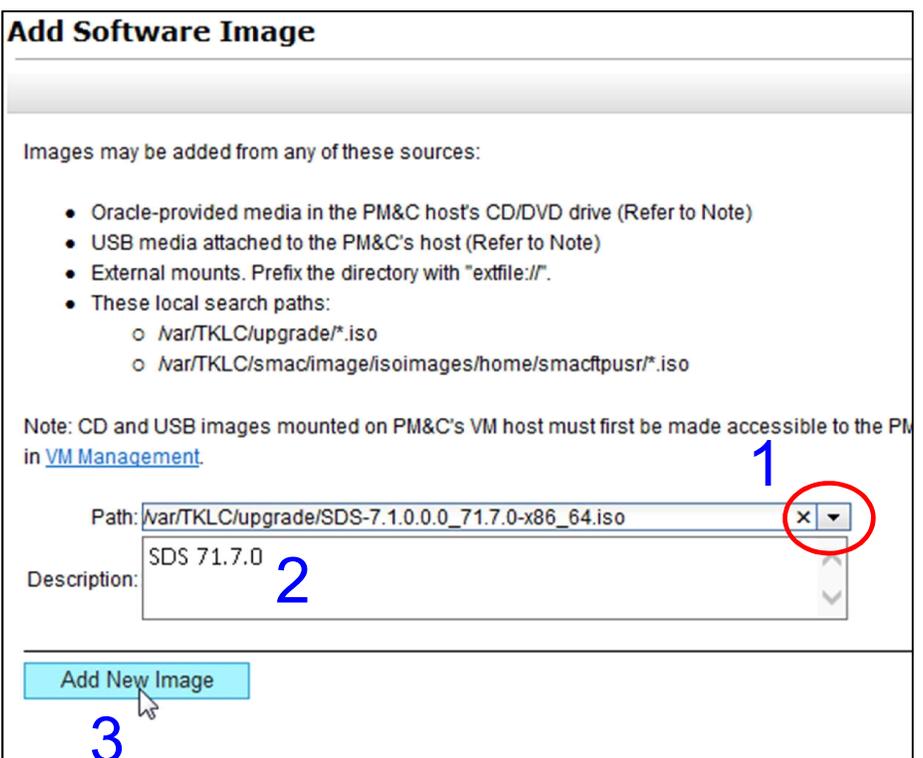
### Appendix I: Adding the SDS ISO to the PM&C Software Repository

Step	Procedure	Result
1. <input type="checkbox"/>	<b>Primary SDS NOAM VIP (CLI):</b> Using the <b>VIP</b> address, login to the <b>“Active” Primary SDS NOAM</b> with the <b>admusr</b> 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: <b>admusr</b> Password: <b>&lt;admusr_password&gt;</b>
2. <input type="checkbox"/>	<b>Primary SDS NOAM VIP:</b> The user will be presented with output similar to that shown to the right.	<b>*** TRUNCATED OUTPUT ***</b>  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"/>	<b>Primary SDS NOAM VIP:</b> Access the <b>“filemgmt”</b> directory where the target ISO file was uploaded to.	[admusr@sds-rlghnc-a ~]\$ <b>cd /var/TKLC/db/filemgmt/</b> [admusr@sds-rlghnc-a filemgmt]\$
4. <input type="checkbox"/>	<b>Primary SDS NOAM VIP:</b> Identify the exact name of the target ISO file.	[admusr@sds-rlghnc-a filemgmt]\$ <b>ls -l *.iso</b> -rw-rw-r-- 1 awadmin awadm 893536256 Jun 24 14:23 <b>SDS-7.1.0.0.0_71.7.0-x86_64.iso</b> [admusr@sds-rlghnc-a filemgmt]\$
5. <input type="checkbox"/>	<b>Primary SDS NOAM VIP:</b> Use <b>Secure Copy (scp)</b> to copy the target ISO file to the <b>/var/TKLC/upgrade/</b> directory of the remote PM&C server as the <b>“admusr”</b> user.	\$ <b>scp -p SDS-7.1.0.0.0_71.7.0-x86_64.iso admusr@10.240.246.7:/var/TKLC/upgrade/</b> 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)? <b>yes</b> Warning: Permanently added '10.240.246.7' (RSA) to the list of known hosts. Password: <b>&lt;admusr_password&gt;</b> SDS-7.1.0.0.0_71.7.0-x86_64.iso 100% 852MB 11.2MB/s 01:16 [admusr@sds-rlghnc-a filemgmt]\$
6. <input type="checkbox"/>	<b>Primary SDS NOAM VIP:</b> Exit the CLI for the <b>“Active” Primary SDS NOAM</b> .	[admusr@sds-rlghnc-a filemgmt]\$ <b>exit</b> logout

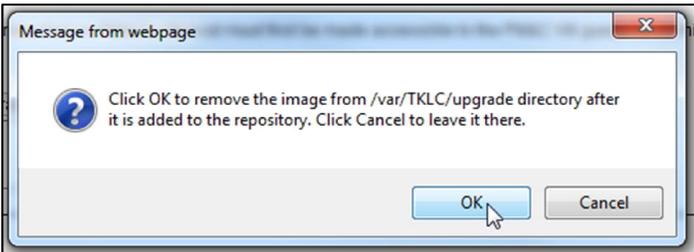
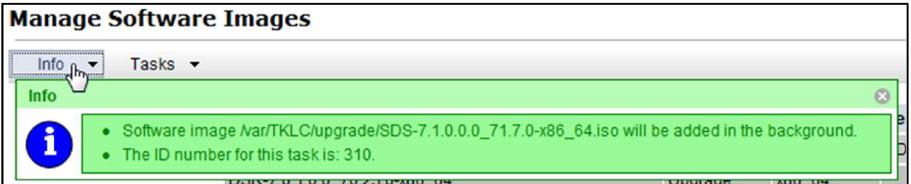
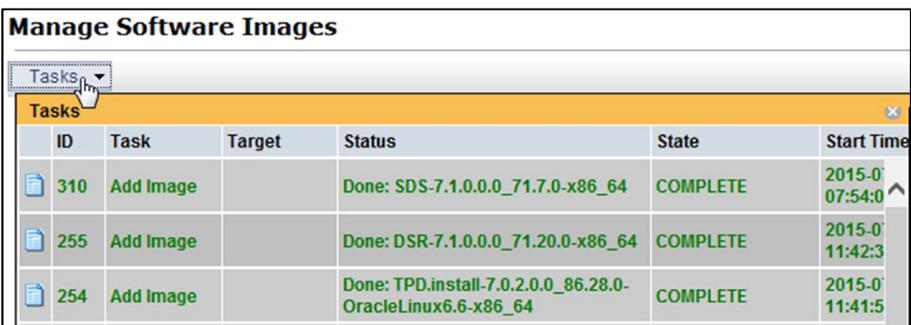
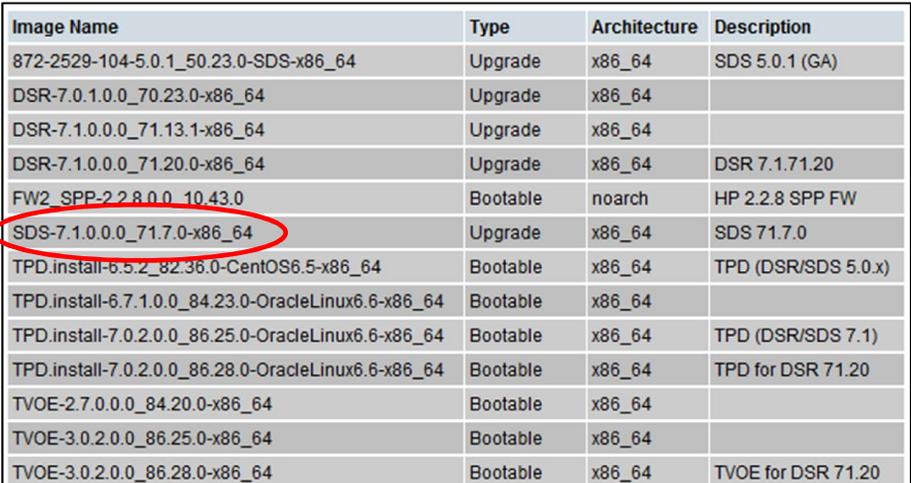
Appendix I: Adding the SDS ISO to the PM&C Software Repository

Step	Procedure	Result
<p>7.</p> <p><input type="checkbox"/></p>	<p><b>PM&amp;C Server: (GUI):</b></p> <p>1) Launch approved Web browser <b>Internet Explorer 8.0, 9.0 or 10.0</b> and connect to the Management IP Address assigned to <b>PM&amp;C Server</b> associated with the <b>SDS SOAM NE</b>.</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>	
<p>8.</p> <p><input type="checkbox"/></p>	<p><b>PM&amp;C Server:</b></p> <p>The user should be presented a PM&amp;C login screen similar to the one shown on the right.</p> <p>Login to the GUI using the default user and password.</p>	

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

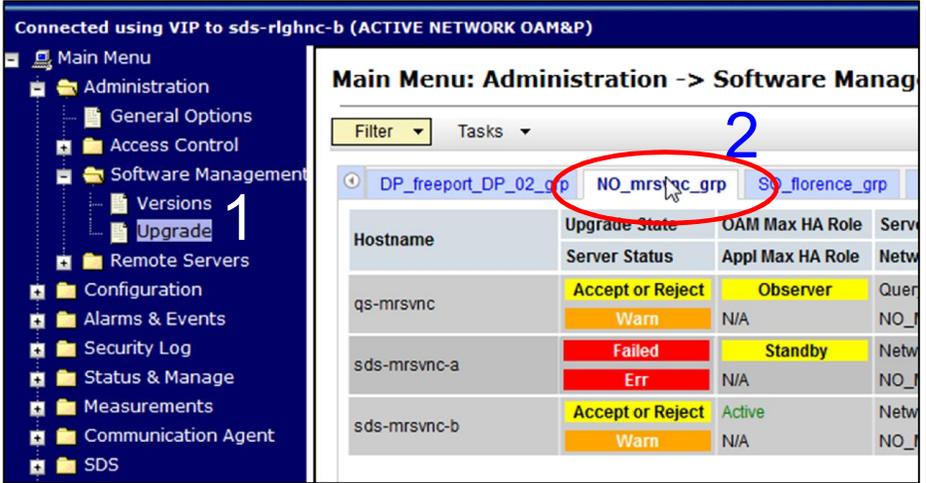
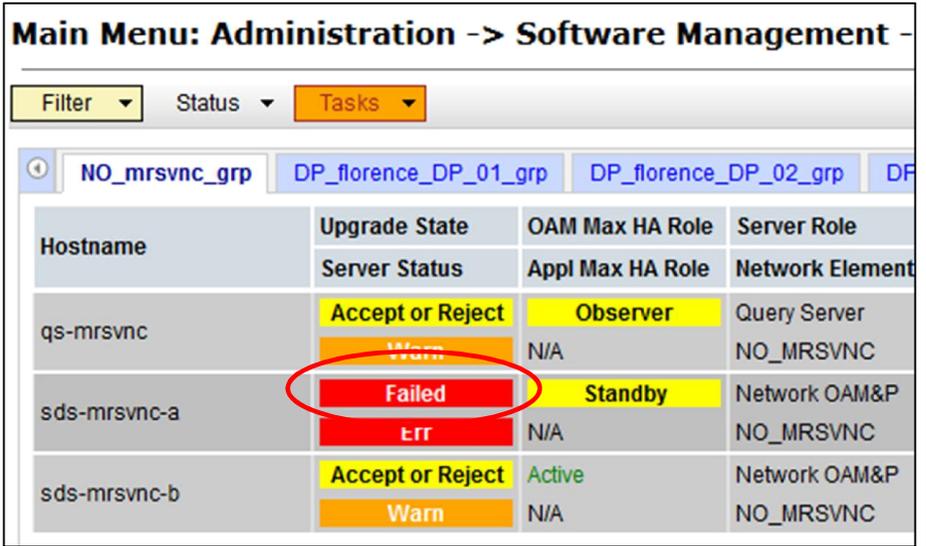
Step	Procedure	Result
<p>9.</p> <p><input type="checkbox"/></p>	<p><b>PM&amp;C Server:</b></p> <p>1) Select...</p> <p><b>Main Menu</b>                      → Software                      → <i>Manage Software Images</i></p> <p>...as shown on the right.</p> <p>2) Select the “Add Image” button</p>	 <p>The screenshot shows the Oracle Platform Management &amp; Configuration interface. On the left is a navigation tree with 'Manage Software Images' selected. On the right, the 'Manage Software Images' panel displays a list of image names: DSR-7.1.0.0.0_71.4.0-x86_64, DSR-7.1.0.0.0_71.5.0-x86_64, SDS-7.1_71.1.0-x86_64, and TPD.install-7.0.0.0.0_86.14.0-OracleLinux6.5-x86_64. At the bottom right, the 'Add Image' button is circled in red.</p>
<p>10.</p> <p><input type="checkbox"/></p>	<p><b>PM&amp;C Server:</b></p> <p>1) Click the “Path:” pull-down and select the target ISO file from the list.</p> <p>2) Input the <b>SDS release information</b> in the “Description:” field.</p> <p>3) Select “Add New Image” button.</p>	 <p>The screenshot shows the 'Add Software Image' form. It lists sources for images: Oracle-provided media, USB media, external mounts, and local search paths. A note states that CD and USB images must be made accessible to the PM in VM Management. The 'Path:' field contains the path <code>/var/TKLC/upgrade/SDS-7.1.0.0.0_71.7.0-x86_64.iso</code> and has a dropdown arrow circled in red with a blue '1'. The 'Description:' field contains 'SDS 71.7.0' and has a blue '2'. The 'Add New Image' button is highlighted with a blue '3' and a mouse cursor.</p>

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

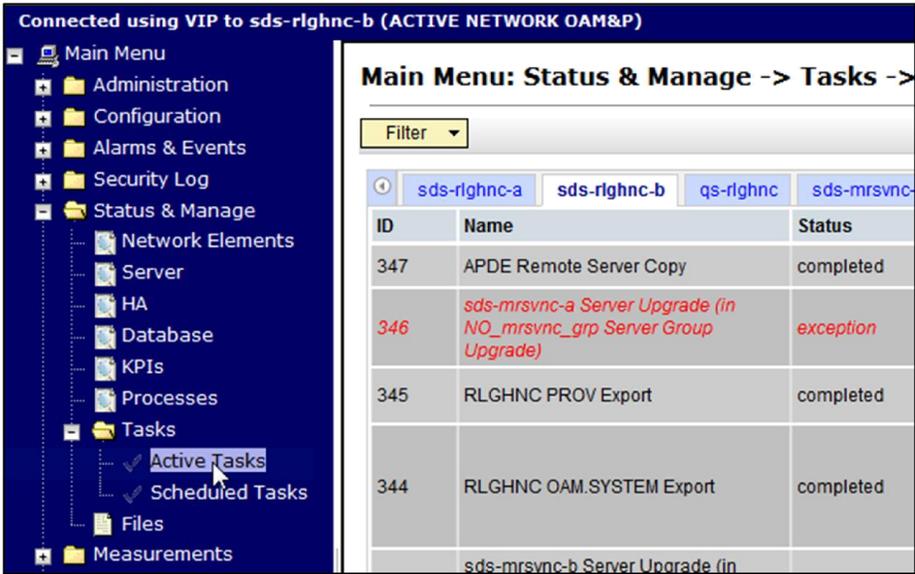
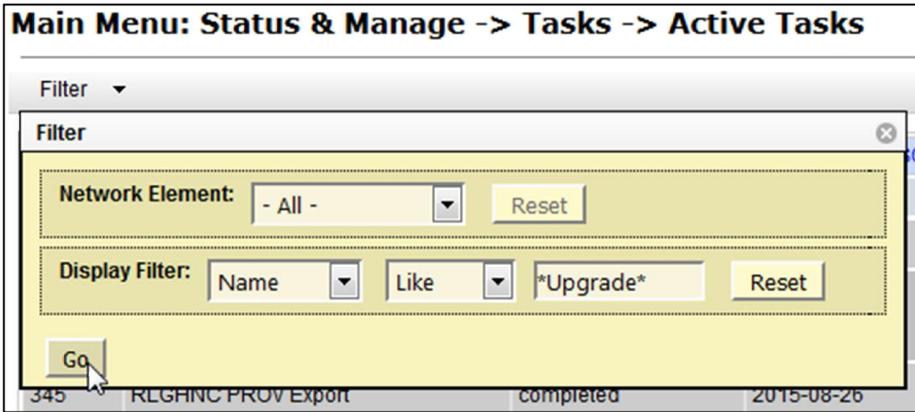
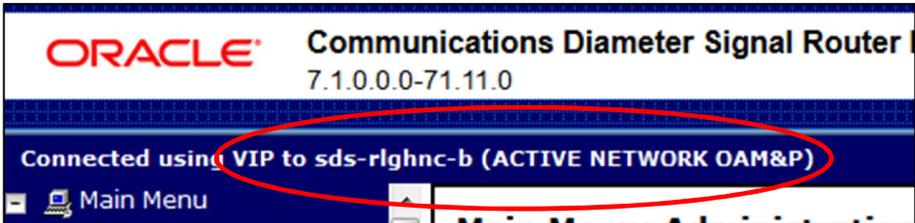
Step	Procedure	Result																																																								
<p>11.</p> <p><input type="checkbox"/></p>	<p><b>PM&amp;C Server:</b></p> <p>Click “OK” on the pop-up confirmation box to allow the target ISO file to be deleted after it has been successfully added to the PM&amp;C Software Repository.</p>																																																									
<p>12.</p> <p><input type="checkbox"/></p>	<p><b>PM&amp;C Server:</b></p> <p>An info message will be raised to show a new background task.</p>																																																									
<p>13.</p> <p><input type="checkbox"/></p>	<p><b>PM&amp;C Server:</b></p> <p>The user may monitor the progress using the “Tasks” tab in the banner on the same screen.</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>2015-07-23 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>2015-07-23 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>2015-07-23 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	2015-07-23 07:54:0	255	Add Image		Done: DSR-7.1.0.0.0_71.20.0-x86_64	COMPLETE	2015-07-23 11:42:3	254	Add Image		Done: TPD.install-7.0.2.0.0_86.28.0-OracleLinux6.6-x86_64	COMPLETE	2015-07-23 11:41:5																																
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255	Add Image		Done: DSR-7.1.0.0.0_71.20.0-x86_64	COMPLETE	2015-07-23 11:42:3																																																					
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<p>14.</p> <p><input type="checkbox"/></p>	<p><b>PM&amp;C Server:</b></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><b>PM&amp;C Server:</b></p> <p>Click the “Logout” link on the PM&amp;C server GUI.</p>																																																									
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## APPENDIX J. RECOVERING FROM A FAILED UPGRADE

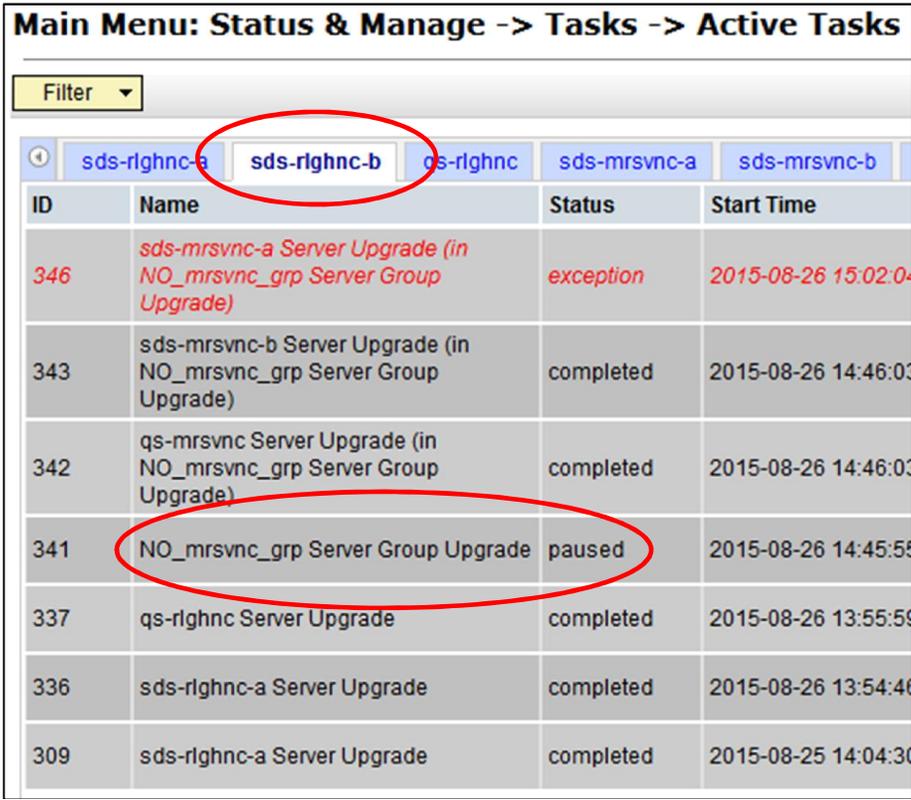
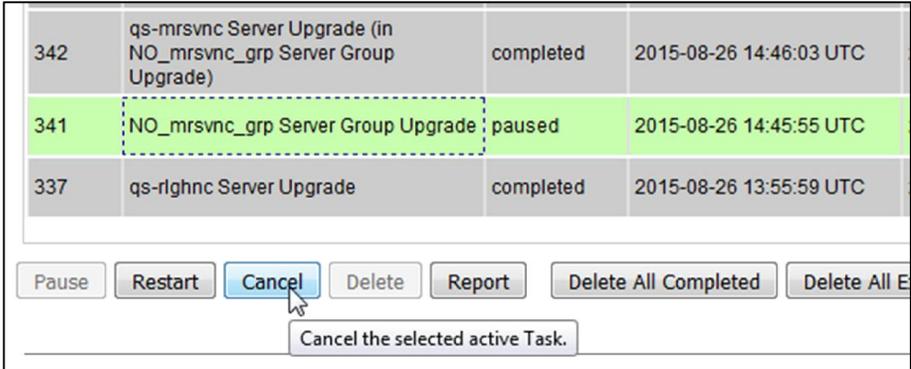
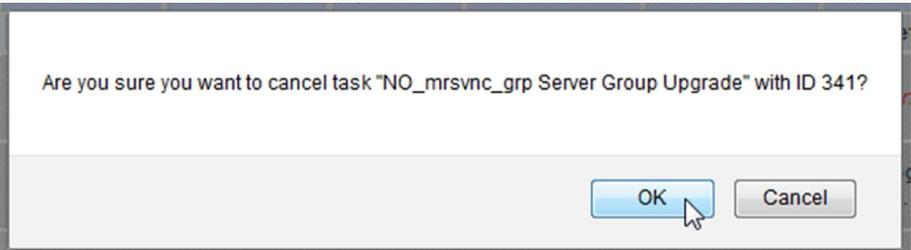
### Appendix J: Recovering from a Failed Upgrade

Step	Procedure	Result
1. <input type="checkbox"/>	Using <b>VIP</b> address, access the <b>Primary SDS NOAM GUI</b> .	Using <b>VIP</b> address, access the <b>Primary SDS NOAM GUI</b> as described in <b>Appendix A</b> .
2. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP (GUI):</b></p> <p>1) Select...</p> <p><b>Main Menu</b>                      → Administration                      → Software Management                      → Upgrade</p> <p>2) Select <b>Server Group</b> tab for the server(s) being upgraded.</p>	
3. <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Verify the “<b>Upgrade State</b>” for each server undergoing SW upgrade.</p> <p>Identify any <i>Server(s)</i> with an “<b>Upgrade State</b>” of “<b>Failed</b>”.</p>	
		<ul style="list-style-type: none"> <li>• If the <b>Failed Server</b> was upgraded using the “<b>Upgrade Server</b>” option, then <b>SKIP</b> to <b>Step 11</b> of this procedure.</li> <li>• If the <b>Failed Server</b> was upgraded using the “<b>Auto Upgrade</b>” option (<i>i.e. Auto Server Group Upgrade</i>), then <b>CONTINUE</b> to <b>Step 4</b> of this procedure.</li> </ul>

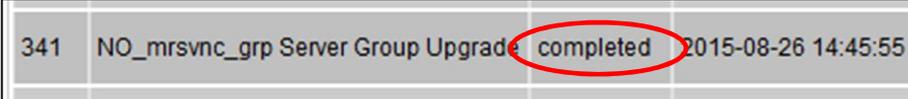
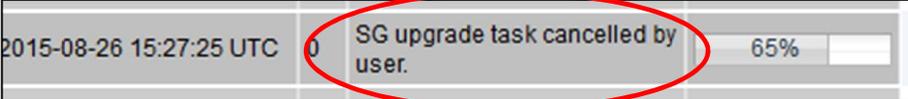
Appendix J: Recovering from a Failed Upgrade

Step	Procedure	Result															
<p>4.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b> Select...</p> <p><b>Main Menu</b> → <b>Status &amp; Manage</b> → <b>Tasks</b> → <b>Active Tasks</b></p> <p>...as shown on the right.</p>	 <p>Connected using VIP to sds-rlghnc-b (ACTIVE NETWORK OAM&amp;P)</p> <p>Main Menu: Status &amp; Manage -&gt; Tasks -&gt;</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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<p>5.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b> Filter the "Active Tasks" screen setting the parameters as shown.</p> <p><b>Display Filter Values:</b></p> <ol style="list-style-type: none"> <li>1) <b>Name</b></li> <li>2) <b>Like</b></li> <li>3) <b>*Upgrade*</b></li> </ol>	 <p>Main Menu: Status &amp; Manage -&gt; Tasks -&gt; Active Tasks</p> <p>Filter</p> <p>Network Element: - All -</p> <p>Display Filter: Name Like *Upgrade*</p> <p>Go</p>															
<p>6.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b> Verify the <b>hostname</b> of the Primary <b>Active SDS NOAM</b> server from the GUI banner.</p>	 <p>ORACLE Communications Diameter Signal Router 7.1.0.0-71.11.0</p> <p>Connected using VIP to sds-rlghnc-b (ACTIVE NETWORK OAM&amp;P)</p>															

Appendix J: Recovering from a Failed Upgrade

Step	Procedure	Result																																
<p>7.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>1) If not auto-selected, select the <b>tab</b> displaying the <b>hostname</b> of the Primary <b>Active SDS NOAM</b> server identified in the previous step.</p> <p>2) Locate the task for the <b>“Server Group Upgrade”</b>. It will show a <b>Status</b> of <b>“paused”</b>.</p>	 <p><b>Main Menu: Status &amp; Manage -&gt; Tasks -&gt; Active Tasks</b></p> <p>Filter ▾</p> <p>sds-r1ghnc-a <b>sds-r1ghnc-b</b> qs-r1ghnc 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 15:02:04</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 14:46:03</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 14:46:03</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-r1ghnc Server Upgrade</td> <td>completed</td> <td>2015-08-26 13:55:59</td> </tr> <tr> <td>336</td> <td>sds-r1ghnc-a Server Upgrade</td> <td>completed</td> <td>2015-08-26 13:54:46</td> </tr> <tr> <td>309</td> <td>sds-r1ghnc-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 15:02:04	343	sds-mrsvnc-b Server Upgrade (in NO_mrsvnc_grp Server Group Upgrade)	completed	2015-08-26 14:46:03	342	qs-mrsvnc Server Upgrade (in NO_mrsvnc_grp Server Group Upgrade)	completed	2015-08-26 14:46:03	341	NO_mrsvnc_grp Server Group Upgrade	paused	2015-08-26 14:45:55	337	qs-r1ghnc Server Upgrade	completed	2015-08-26 13:55:59	336	sds-r1ghnc-a Server Upgrade	completed	2015-08-26 13:54:46	309	sds-r1ghnc-a Server Upgrade	completed	2015-08-25 14:04:30
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<p>8.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>1) Select the <b>“Server Group Upgrade”</b> task with the cursor. It will become <b>highlighted</b> on the screen.</p> <p>2) Click the <b>“Cancel”</b> dialogue button to cancel the task.</p>	 <p>342 qs-mrsvnc Server Upgrade (in NO_mrsvnc_grp Server Group Upgrade) completed 2015-08-26 14:46:03 UTC</p> <p>341 NO_mrsvnc_grp Server Group Upgrade paused 2015-08-26 14:45:55 UTC</p> <p>337 qs-r1ghnc Server Upgrade completed 2015-08-26 13:55:59 UTC</p> <p>Buttons: Pause Restart <b>Cancel</b> Delete Report Delete All Completed Delete All E</p> <p>Cancel the selected active Task.</p>																																
<p>9.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS NOAM VIP:</b></p> <p>Click the <b>“OK”</b> 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>Buttons: OK Cancel</p>																																

Appendix J: Recovering from a Failed Upgrade

Step	Procedure	Result
<p>10.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP:</b> For the “<b>Server Group Upgrade</b>” task...</p> <p>1) Verify that the <b>Status</b> has changed from “<b>paused</b>” to “<b>completed</b>”.</p> <p>2) Verify that the <b>Result Details</b> column now states “<b>SG upgrade task cancelled by user.</b>”</p>	 
<p>11.</p> <input type="checkbox"/>	<p><b>Failed Server (CLI):</b> Using the <b>XMI</b> address, login to the Failed Server with the <b>admusr</b> 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: &lt;admusr_password&gt;</pre>
<p>12.</p> <input type="checkbox"/>	<p><b>Failed Server (CLI):</b> The user will be presented with output similar to that shown to the right.</p>	<p><b>*** TRUNCATED OUTPUT ***</b></p> <pre>RELEASE=6.4 RUNID=00 VPATH=/var/TKLC/rundb:/usr/TKLC/appworks:/usr/TKLC/awpcommon:/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><b>Failed Server (CLI):</b> Inspect the “<b>upgrade.log</b>” 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><b>Failed Server (CLI):</b> 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: &lt;&lt;&lt;  OUTPUT  &gt;&gt;&gt; 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: &lt;&lt;&lt;  END OUTPUT  &gt;&gt;&gt; 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"> <li>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.</li> <li>If troubleshooting assistance is needed, refer to <b>Appendix K: Accessing My Oracle Support (MOS)</b> for information on contacting MOS.</li> </ul> <p style="background-color: yellow; padding: 5px; margin-top: 10px;"><b>DO NOT PROCEED TO STEP 15 OF THIS PROCEDURE UNTIL THE ALARM CONDITION HAS BEEN CLEARED!</b></p> </div>		
<p>15.</p> <input type="checkbox"/>	<p><b>Failed Server (CLI):</b> Use the <b>alarmMgr</b> utility to verify that all <b>Platform</b> 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><b>Failed Server (CLI):</b> Exit the <b>CLI</b> for the Failed Server.</p>	<pre>[admusr@sds-mrsvnc-a ~]\$ exit logout</pre>
<p>17.</p> <input type="checkbox"/>	<p><b>Primary SDS NOAM VIP (GUI):</b> Re-execute the Server Upgrade.</p> <p style="background-color: yellow; padding: 5px;"><b>NOTE: Once failed, the Auto Server Group Upgrade (i.e. Auto Upgrade) option should not be repeated for that Server Group.</b></p>	<ul style="list-style-type: none"> <li>Return to the referring Upgrade procedure and re-execute SW Upgrade for the Failed Server using the “<b>Upgrade Server</b>” option Only!</li> </ul>
<p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>		

## APPENDIX K. ACCESSING MY ORACLE SUPPORT (MOS)

"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 Oracle Support hotline for your local country from the list at <http://www.oracle.com/us/support/contact/index.html>.

When calling, make the selections in the sequence shown below on the Support telephone menu:

- Select **2** for New Service Request.
- Select **3** for Hardware, Networking, and Solaris Operating System Support.
- Select **2** for Non-Technical Issue.

You will be connected to a live agent who can assist you with MOS registration and provide Support Identifiers.

Simply mention you are a **Tekelec** Customer new to MOS. MOS is available **24 hours a day, 7 days a week, 365 days a year**.

### **Emergency Response**

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

Other problems severely affecting service, capacity/ traffic, billing, and maintenance capabilities may also be defined as critical by prior discussion and agreement with Oracle.