

Oracle® Communications
Diameter Signal Router Full Address Resolution
SDS Initial Installation and Configuration Guide

Release 8.6.0.0.0

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ORACLE®

SDS Initial Installation and Configuration

Oracle® Communications Diameter Signal Router Full Address Resolution, SDS Initial Installation and Configuration, Release 8.6.0.0.0.

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1.0 INTRODUCTION

1.1 Purpose and Scope

This document describes how to install the Oracle® Communications Diameter Signal Router Full Address Resolution product also known as “Eagle XG Subscriber Data Server (SDS)” within a customer network. It makes use of the Platform 8.5 network installation and is intended to cover the initial network configuration steps for a SDS/Query Server NE and a SOAM/DP (Blade) NE for production use as part of the DSR 8.5 solution. This document includes switch configuration (Cisco 4948E-F) and validation of the initial SDS configuration. This document only describes the SDS product installation on the HP DL380 Gen8 and Gen9 deployed using Cisco 4948E-F switches. It does not cover hardware installation, site survey, customer network configuration, IP assignments, customer router configurations, or the configuration of any device outside of the SDS cabinet. Users needing familiarity with these areas of interest should refer sources cited in **Section 1.2, References**.

1.2 References

External (*Customer Facing*):

- [1] *TEKELEC Acronym Guide*, MS005077, Latest Revision
- [2] *DSR C-Class Hardware and Software Installation Part 1*
- [3] *DSR Software Installation & Configuration Procedure 2/2*

Internal (*ORACLE Communications Personnel Only*):

- [4] *HP Solutions Firmware Upgrade Pack Release Notes*, 795-000-4xx, latestversion (2.2.12 or higher)
- [5] *Tekelec Platform 7.2 Configuration Guide*, E64363, Revision 5
- [6] *Platform Management and Configuration Guide E93270-01*, Release 7.6
- [7] *Network Architecture Planning Document - cgbu_010618*, Latest Revision
- [8] *TPD Initial Product Manufacture Software Installation Procedure Release 7.6*, Latest Revision

1.3 Acronyms

Acronym	Description
DP	Data Processor blade
DR	Disaster Recovery
IMI	Internal Management Interface
ISL	Inter-Switch-Link
NE	Network Element
NOAM	Network Operations, Administration & Maintenance
iLO	HP Integrated Lights-Out
IPM	Initial Product Manufacture
SDS	Subscriber Data Server
SOAM	Systems Operations, Administration & Maintenance
TPD	Tekelec Platform Distribution (Linux OS)
VIP	Virtual IP
XMI	External Management Interface
XML	Extensible Markup Language

Table 1 - Acronyms

1.4 Assumptions

This procedure assumes the following;

- The user has reviewed the latest Network Architecture Planning Document (NAPD) [7] and has received assigned values for all requested information related to SDS, Query Server, SOAM and DP installation.
- The user has taken assigned values from the latest Customer specific DSR Network Planning document [7] and used them to compile XML files (See **Appendix E**) for each SDS and SOAM site's NE prior to attempting to execute this procedure.
- The user conceptually understands DSR topology and SDS network configuration as described in the latest Customer specific DSR Network Planning document [7].
- The user has at least an intermediate skill set with command prompt activities on an Open Systems computing environment such as Linux or TPD.
- All SDS servers were IPM'ed with TPD Platform 7.6 of correct version as described in [8].

1.5 XML Files

The XML files compiled for installation of the each of the SDS NOAM and SOAM site Network Elements must be maintained and accessible for use in Disaster Recovery procedures.

If engaged by the customer, the ORACLE Consulting Services Engineer will provide a copy of the XML files used for installation to the designated Customer Operations POC.

The customer is ultimately responsible for maintaining and providing the XML files to Oracle's Customer Service if needed for use in Disaster Recovery operations.

1.6 How to use this Document

Although this document is primarily to be used as an initial installation guide, its secondary purpose is to be used as a reference for Disaster Recovery procedures.

When executing this document for either purpose, there are a few 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.

If a procedural STEP fails to execute successfully, STOP and contact Oracle's Customer Service for assistance before attempting to continue. See **Appendix K - Accessing My Oracle Support (MOS)**, for information on contacting Oracle Customer Support.

2.0 PRE-INSTALLATION SETUP

2.1 Installation Prerequisites

The following items/settings are required in order to perform installation for HP DL380 based SDS HW:

- A laptop or desktop computer equipped as follows;
 - 10/100 Base-TX Ethernet Interface.
 - Administrative privileges for the OS.
 - An approved web browser (currently Internet Explorer 10.x or 11.x)
- An IEEE compliant 10/100 Base-TX Ethernet Cable, RJ-45, Straight-Through.
- USB flash drive with at least 1GB of available space.
- TPD “root” user password.
- TPD “admusr” user password.

NOTE: When using the iLO for SSH connectivity, supported terminal Emulations are **VT100 or higher** (i.e. VT-102, VT-220, VT-320).

2.2 Physical Connections

A connection to the VGA/Keyboard ports on the HP DL Server rear panel or a connection to the iLO is required to initiate and monitor the progress of SDS installation procedures.

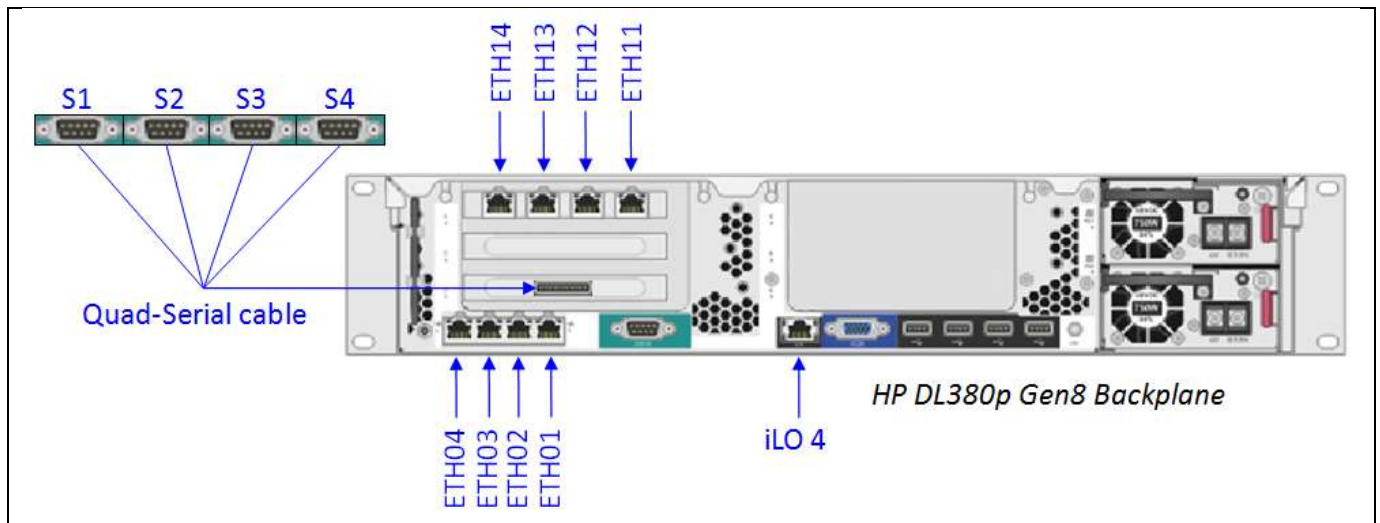


Figure 1 - HP DL380 Gen8, DC (Rear Panel)

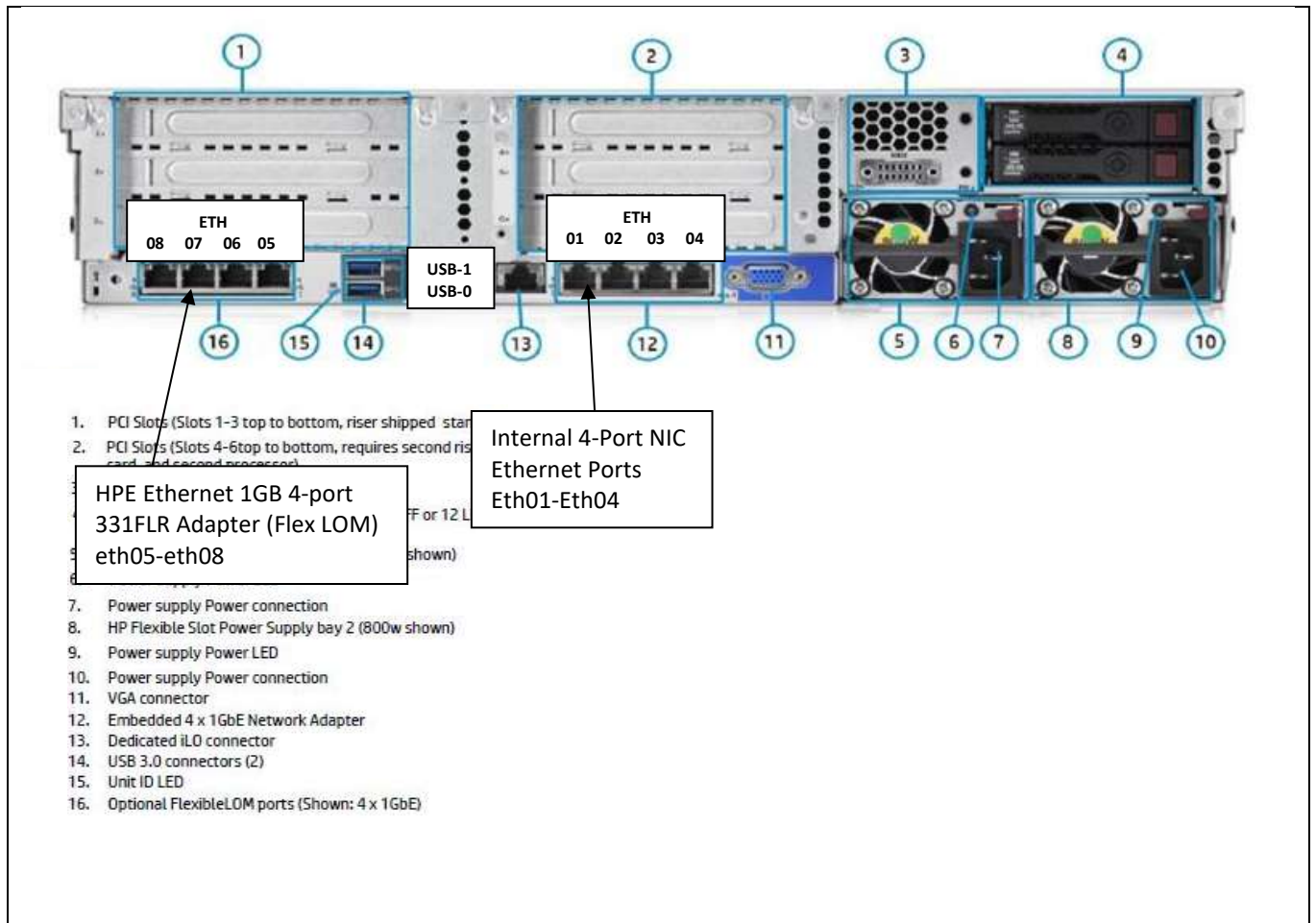



Figure 2 - HP DL380 (Gen9), DC (Rear Panel)

2.3 Access Alternatives for Application Install

This procedure may also be executed using one of the access methods described below:

<p>One of the Access Methods shown to the right may be used to initiate and monitor SDS installation.</p> <p>NOTE: <i>Methods 3 & 4 may only be used on a DL380 with an iLO that has been previously configured with a statically assigned IP address. It is not intended for use with a new, out-of-the-box server.</i></p>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>Method 1) VGA Monitor and PS2 Keyboard.</p> <p>Method 2) Laptop +  KVM2USB switch. http://www.epiphan.com/products/frame-grabbers/kvm2usb/</p> <p>Method 3) iLO VGA Redirection Window, IE8 (or IE9 with Document Mode "IE8 Standards"), Ethernet cable. (See 0)</p> <p>Method 4) iLO access via SSH, terminal program, Ethernet cable.</p>
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2.4 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 Communications for archiving post installation.

NOTE: *Parts of this procedure will utilize a VGA Monitor (or equivalent) as the active terminal. It is understood that logging is not possible during these times. The user is only expected to provide logs for those parts of the procedures where direct terminal capture is possible (i.e. SSH, serial, etc.).*

2.5 Firmware and BIOS Settings

Prior to upgrading the Firmware of the DL380 (Gen8 & Gen9) servers the CMOS Clock, BIOS Settings, and iLO IP Address needed to be configured. These configuration procedures are defined in **Appendix J** of this document.

Several procedures in this document pertain to the upgrading of firmware on DL380 servers and Cisco 4948 E-F switches that are part of the Platform 7.6.x configuration.

The required firmware and documentation for upgrading the firmware on HP hardware systems and related components are distributed as the HP *Solutions Firmware Upgrade Pack*. The minimum firmware release required for Platform 7.6.x is *HP Solutions Firmware Upgrade Pack 2.2.12 or higher*. If a firmware upgrade is needed, the current GA release of the *HP Solutions Firmware Upgrade Pack* should be used.

Each version of the *HP Solutions Firmware Upgrade Pack* contains multiple items including media and documentation. If an HP FUP 2.x.x version newer than the Platform 7.6.x minimum of HP FUP 2.2.12 is used, then the *HP Solutions Firmware Upgrade Guide* should be used to upgrade the firmware. Otherwise, the *HP Solutions Firmware Upgrade Guide*, Release 2.x.x should be used.

The three pieces of required firmware media provided in the *HP Solutions Firmware Upgrade Pack* releases are:

- HP Service Pack for ProLiant (SPP) firmware ISO image
- HP MISC Firmware ISO image

Refer to the Release Notes of the [4] *HP Solutions Firmware Upgrade Pack Release Notes, Release 2.x.x, and (Min 2.2.12)* to determine specific firmware versions needed.

Contact Accessing My Oracle Support (MOS) for more information on obtaining the HP Firmware Upgrade Packs.

2.5.1 Configure the CMOS Clock, BIOS Settings, and iLO IP Address and Upgrade Firmware

The following procedure explains the steps needed to configure the CMOS Clock, BIOS Settings, and iLO IP Address of the DL80 RMS servers and upgrade the firmware. (If needed).

STEP #	Procedure	Description
<p>The following procedure explains the steps needed to configure the CMOS Clock, BIOS Settings, and iLO IP Address of the DL380 RMS servers and upgrade the firmware. (If needed).</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>If this procedure fails, contact Appendix K My Oracle Support and ask for assistance.</p>		
<p>1</p> <p><input type="checkbox"/></p>	<p>Configure RMS Server.</p>	<p>Connect to the RMS Server using a VGA Display and USB Keyboard.</p> <p>For HP DL 380 (G8) Servers execute:</p> <p>Appendix J.1.1 RMS: Configure ILO Appendix J.1.2 GEN8: RMS BIOS Configuration, verify processor & memory.</p> <p>For HP DL 380 (G9) Servers execute:</p> <p>Appendix J.2.1 RMS: Configure i Appendix J.2.2 GEN9: RMS BIOS Configuration, verify processor & memory</p>
<p>2</p> <p><input type="checkbox"/></p>	<p>RMS Server: Verify/Upgrade Firmware</p>	<p>Follow the appropriate procedure for the ProLiant DL380(G8/G9) hardware type to verify and upgrade the HP server firmware using the procedures in [4]<i>HP Solutions Firmware Upgrade Pack Release Notes</i>, 795-000-4xx, latestversion (2.2.12 or higher)</p> <p>Check-off the associated Check Box in step 3 as the RMS server's CMOS Clock, BIOS Settings, and iLO IP Address has been configured and firmware is updated:</p>

STEP #	Procedure	Description
3 <input type="checkbox"/>	RMS Server: CMOS Clock, BIOS Settings, and iLO IP Address have been configured and firmware updated	<p>Check-off the associated Check Box as the RMS server's CMOS Clock, BIOS Settings, and iLO IP Address has been configured and firmware is updated:</p> <p>Primary Site:</p> <p><input type="checkbox"/> RMS-1: _____ <input type="checkbox"/> RMS-2: _____</p> <p><input type="checkbox"/> RMS-3: _____ <input type="checkbox"/> RMS-4: _____</p> <p><input type="checkbox"/> RMS-5: _____ <input type="checkbox"/> RMS-6: _____</p> <p><input type="checkbox"/> RMS-7: _____ <input type="checkbox"/> RMS-8: _____</p> <p><input type="checkbox"/> RMS-9: _____ <input type="checkbox"/> RMS-10: _____</p> <p>Disaster Recover Site: (Optional)</p> <p><input type="checkbox"/> RMS-1: _____ <input type="checkbox"/> RMS-2: _____</p> <p><input type="checkbox"/> RMS-3: _____ <input type="checkbox"/> RMS-4: _____</p> <p><input type="checkbox"/> RMS-5: _____ <input type="checkbox"/> RMS-6: _____</p> <p><input type="checkbox"/> RMS-7: _____ <input type="checkbox"/> RMS-8: _____</p> <p><input type="checkbox"/> RMS-9: _____ <input type="checkbox"/> RMS-10: _____</p>
4 <input type="checkbox"/>	Optional: Repeat on the Disaster Recovery RMS servers.	

3.0 INSTALLATION MATRIX

3.1 Installing SDS on the Customer Network

Installing the SDS product is a task which requires multiple installations of varying types. The matrix below provides a guide to the user as to which procedures are to be performed on which server types. The user should be aware that this document only covers the necessary configuration required to complete product install. Refer to the online help or contact Accessing My Oracle Support (MOS) for assistance with post installation configuration options.

NOTE: *Although the SDS sites are fully redundant by function, we must distinguish between them during installation due to procedural changes based on the installation sequence. The user should be aware that any reference to the “SDS” site refers to the 1st installation of a SDS pair on the customer network while references to the “DR SDS” site refers to the 2nd SDS pair to be installed.*

SDS Installation Matrix

Server Type		Procedures to perform												
		1	2	3	4	5	6	7	8	9	10	11	E.*	J
<input type="checkbox"/>	SDS NOAM	✓	✓	✓	✗	✗	✗	✗	✗	✗	✗	✓	✗	✓
<input type="checkbox"/>	DR SDS NOAM	✓	✗	✗	✗	✓	✓	✗	✗	✗	✗	✓	✗	✗
<input type="checkbox"/>	Query Server	✓	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗
<input type="checkbox"/>	SDS SOAM	✗	✗	✗	✗	✗	✗	✓	✓	✓	✗	✗	✗	✗
<input type="checkbox"/>	DP	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✓	✗

Table 2 - SDS Installation Matrix

SDS Installation: List of Procedures

Procedure No :	Title :	Page No :
1	Installing the SDS Application (All SDS NOAM sites)	15
2	Configuring SDS Servers A and B (1st SDS NOAM site only)	24
3	OAM Pairing (1st SDS NOAM site only)	46
4	Query Server Installation (All SDS NOAM sites)	64
5	OAM Installation for the DR SDS NOAM site	84
6	OAM Pairing for DR SDS NOAM site	101
7	Add SDS software images to PMAC servers (All SOAM sites)	115
8	OAM Installation for SOAM sites (All SOAM sites)	120
9	OAM Pairing for SDS SOAM sites (All SOAM sites)	147
10	DP Installation (All SOAM sites)	161
11	Configuring ComAgent	195
D.1	Figure 10- SDS Frame Layout	207
D.2	Configure Cisco 4948E-F Aggregation Switches	210
D.3	Cisco 4948E-F IOS Upgrade (All SDS NOAM sites)	236
I	Disable Hyperthreading For GEN8 & Gen9 (DP Only)	256


Table 3 - SDS Installation: List of Procedures

4.0 APPLICATION INSTALL

4.1 Installing the SDS Application (All SDS NOAM sites)

Note: - If servers are not loaded with OS (TPD). Please refer 1.1.1.1 Appendix L for installing it.
 Installing the SDS Application (All SDS NOAM sites)



Procedure 1: Installing the SDS Application (All SDS NOAM sites)

Step	Procedure	Result
1. <input type="checkbox"/>	Access the HP server's console.	Connect to the HP DL 380 server's console using one of the access methods described in Section 2.3 .
2. <input type="checkbox"/>	1) Access the command prompt. 2) Log into the HP server as the "admusr" user.	login: admusr Using keyboard-interactive authentication. Password: <admusr_password>
3. <input type="checkbox"/>	Verify that Date & Time are displayed in GMT (+/- 4 min.).	\$ date -u Wed Oct 22 14:07:12 UTC 2014 \$
 <p>IF THE CORRECT DATE & TIME (IN GMT) ARE NOT SHOWN IN THE PREVIOUS STEP, THEN STOP THIS PROCEDURE AND PERFORM THE FOLLOWING STEPS:</p> <ul style="list-style-type: none"> 1) Execute Appendix J- CONFIGURE THE HP DL380 (GEN8 & GEN9) SERVER CMOS CLOCK/BIOS SETTINGS 2) Restart Procedure 1 beginning with Step 1. <p>IF THE CORRECT DATE & TIME (IN GMT) ARE SHOWN IN THE PREVIOUS STEP, THEN CONTINUE ON TO STEP 4 OF THIS PROCEDURE.</p>		
4. <input type="checkbox"/>	Verify that the TPD release is 7.6	\$ getPlatRev 7.6.0.0.0-88.54.0
5. <input type="checkbox"/>	Execute alarmMgr command to verify any alarms of the server before the application install.	\$ alarmMgr --alarmStatus <i>NOTE: This command should return no output on a healthy system. If any alarms are reported as SNMP traps, please stop and contact Accessing My Oracle Support (MOS) for the assistance.</i>

Procedure 1: Installing the SDS Application (All SDS NOAM sites)

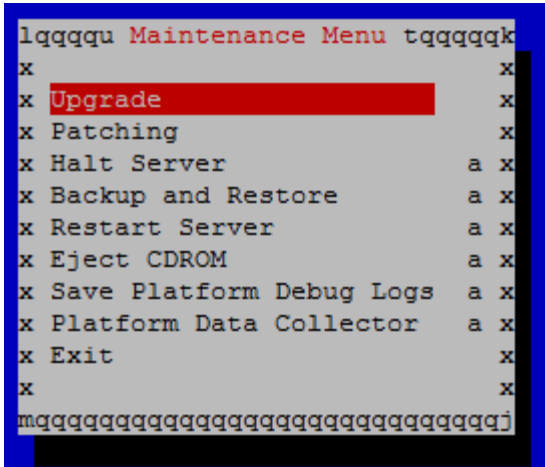
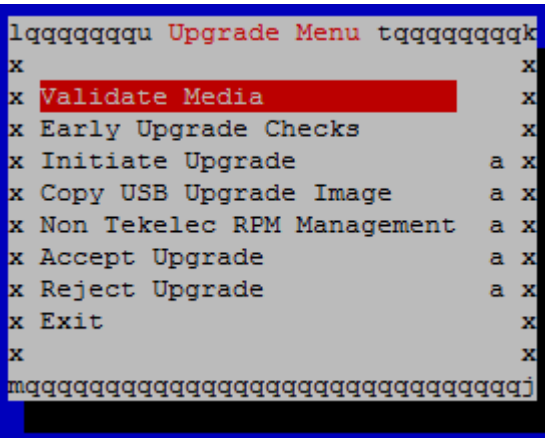
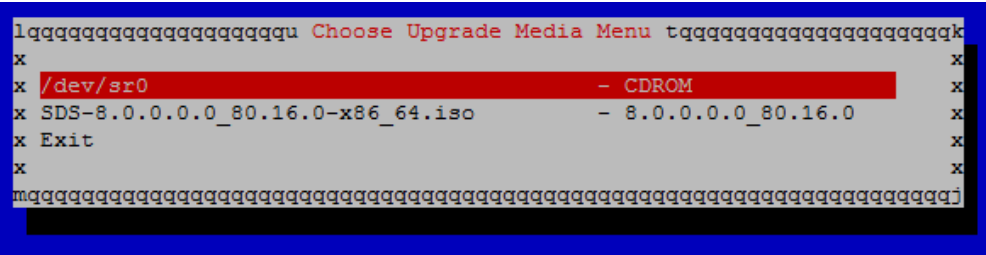
Step	Procedure	Result
<p>6.</p> <input type="checkbox"/>	<p>Execute “syscheck” to verify the state of the server before Application install.</p>	<p>\$ sudo syscheck</p> <p>Running modules in class hardware... OK</p> <p>Running modules in class disk... OK</p> <p>Running modules in class net... OK</p> <p>Running modules in class system... OK</p> <p>Running modules in class proc... OK</p> <p>LOG LOCATION: /var/TKLC/log/syscheck/fail_log</p> <p>NOTE: The user should stop and resolve any errors returned from “syscheck” before continuing on to the next step.</p>
<p>7.</p> <input type="checkbox"/>	<p>Execute verifyUpgrade command to verify health of the server before the application install.</p>	<p>\$ sudo verifyUpgrade</p> <p>Disregard following error during this command execution ERROR: No upgrade/patching transaction has been performed on this system! (/usr/share/tomcat6/webapps/ohw.war)</p> <p>NOTE: This command should return no output on a healthy system. If any error are reported, please stop and contact Accessing My Oracle Support (MOS) for the assistance.</p>
<p>8.</p> <input type="checkbox"/>	<p>Verify Hardware ID is ProLiant DL380 Gen8 or Gen9.</p>	<p>\$ hardwareInfo grep Hardware</p> <p>Hardware ID: ProLiantDL380pGen8</p> <p>- Or -</p> <p>Hardware ID: ProLiantDL380Gen9</p>

Procedure 1: Installing the SDS Application (All SDS NOAM sites)

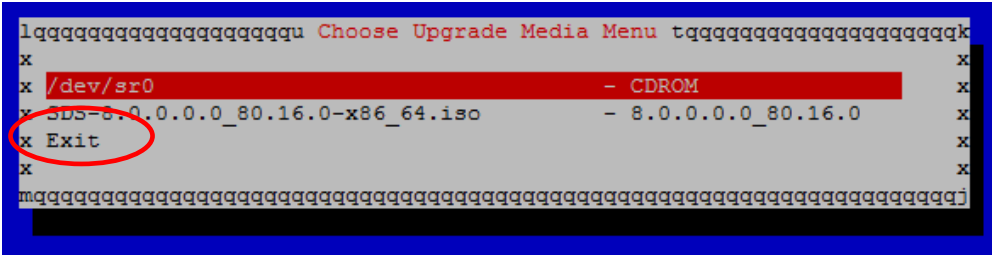
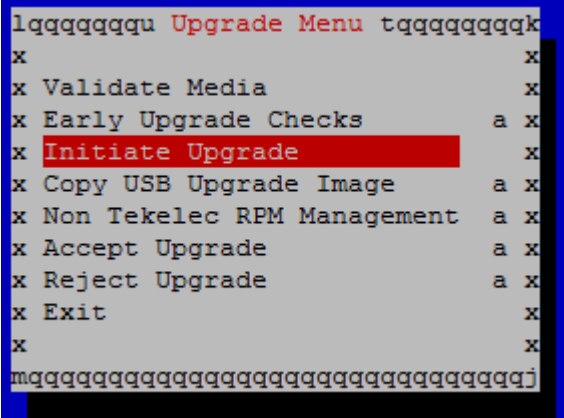
Step	Procedure	Result
<p>9.</p> <input type="checkbox"/>	<p>Place the USB drive containing the SDS Application software into the server's USB port.</p>	 <p>Figure 3 - HP DL380 Gen8, Front Panel (USB Port)</p>  <p>Figure 4 - HP DL380 Gen9, Front Panel (USB Port)</p>
<p>10.</p> <input type="checkbox"/>	<p>Verify that the USB drive has been mounted under the /media directory.</p>	<pre>\$ df grep sdb /dev/sdb1 2003076 8 2003068 1% /media/sdb1</pre>
<p>11.</p> <input type="checkbox"/>	<p>Verify that the target release is present on the USB drive.</p>	<pre>\$ ls /media/sdb1/ SDS-8.5.0.0.0_90.11.0.iso</pre>
<p>12.</p> <input type="checkbox"/>	<p>Copy the target release to the server's hard disk under the /var/TKLC/upgrade directory.</p>	<pre>\$ cp -p /media/sdb1/ SDS-8.5.0.0.0_90.11.0.iso /var/TKLC/upgrade/</pre>
<p>13.</p> <input type="checkbox"/>	<p>Unmount the USB drive partition.</p>	<pre>\$ sudo umount /media/sdb1 \$</pre>

Procedure 1: Installing the SDS Application (All SDS NOAM sites)

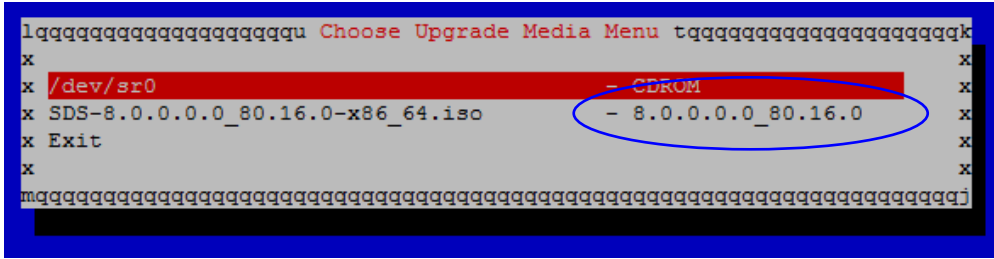
Step	Procedure	Result
<p>14.</p> <input type="checkbox"/>	<p>Remove the USB drive from the server's front panel.</p>	<div> <p>Figure 3 - HP DL380 Gen8, Front Panel (USB Port)</p> </div> <div> <p>Figure 4 - HP DL380 Gen9, Front Panel (USB Port)</p> </div>
<p>15.</p> <input type="checkbox"/>	<p>Login to the "platcfg" utility.</p>	<pre>\$ sudo su - platcfg</pre>
<p>16.</p> <input type="checkbox"/>	<p>From the "platcfg" Main Menu...</p> <p>Select Maintenance then press the <ENTER> key</p>	<pre>lqqqqqqqu Main Menu tqqqqqqqqk x x Maintenance x x Diagnostics x x Server Configuration a x x Security a x x Remote Consoles a x x Network Configuration a x x NetBackup Configuration a x x Exit x x x mqqqqqqqqqqqqqqqqqqqqqqqqqqqqqj</pre>

<p>17.</p> <p><input type="checkbox"/></p>	<p>From the "platcfg" Main Menu...</p>	 <pre> lqqqqqu Maintenance Menu tqqqqqqk x x Upgrade x Patching x Halt Server x Backup and Restore x Restart Server x Eject CDROM x Save Platform Debug Logs x Platform Data Collector x Exit x mqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqj </pre>
<p><input type="checkbox"/></p>	<p>Select Validate then press the <ENTER> key</p>	 <pre> lqqqqqqqu Upgrade Menu tqqqqqqqqk x x Validate Media x Early Upgrade Checks x Initiate Upgrade x Copy USB Upgrade Image x Non Tekelec RPM Management x Accept Upgrade x Reject Upgrade x Exit x mqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqj </pre>
<p><input type="checkbox"/></p>	<p>Select ISO then press the <ENTER> key</p>	 <pre> lqqqqqqqqqqqqqqqqqqqqqqqu Choose Upgrade Media Menu tqqqqqqqqqqqqqqqqqqqqk x x /dev/sr0 - CDROM x SDS-8.0.0.0.0_80.16.0-x86_64.iso - 8.0.0.0.0_80.16.0 x Exit x mqqqj </pre>
<p><input type="checkbox"/></p>	<p>Screen will show ISO is Validated then press the ANY key.</p>	<p>Validating cdrom...</p> <pre> ##### ##### ##### ##### ##### ##### ##### ##### ##### ##### ##### ##### </pre>

Procedure 1: Installing the SDS Application (All SDS NOAM sites)

Step	Procedure	Result
<input type="checkbox"/>	<p>Select Exit then press the <ENTER> key</p>	<pre>##### ##### ##### ##### UMVT Validate Utility v2.3.4, (c)Tekelec, May 2014 Validating /var/TKLC/upgrade/ SDS-8.5.0.0.0_90.11.0.iso Date&Time: 2016-08-09 08:20:01 Volume ID: 8.5.0.0.0_90.11.0 Part Number: N/A Version: 8.5.0.0.0_90.11.0 Disc Label: DSR Disc description: DSR The media validation is complete, the result is: PASS CDROM is Valid PRESS ANY KEY TO RETURN TO THE PLATCFG MENU.</pre> 
<p>18.</p> <input type="checkbox"/>	<p>From the “platcfg” Main Menu...</p> <p>Select Initiate Upgrade then press the <ENTER> key</p>	

Procedure 1: Installing the SDS Application (All SDS NOAM sites)

Step	Procedure	Result
<p>19.</p> <input type="checkbox"/>	<p>Verify that SDS application release shown matches the target release.</p> <p>Press the <ENTER> key to start the SDS application install</p>	
<p>20.</p> <input type="checkbox"/>	<p>Output similar to that shown on the right may be observed as the SDS application install progresses.</p>	<pre> Determining if we should upgrade... Install product is TFD Install product record exists in /etc/tekelec.cfg Install products match Stopping cron service... Checking for stale RPM DB locks... Installing public key /mnt/upgrade/upgrade/pub_keys/MySQL_public_key.asc... Installing public key /mnt/upgrade/upgrade/pub_keys/RPM-GPG-KEY-redhat-beta... Installing public key /mnt/upgrade/upgrade/pub_keys/RPM-GPG-KEY-redhat-release... Checking for any missing packages or files Checking for missing files... No missing files found. Checking if upgrade is supported Current platform version: 5.8.8-72.28.8 Target platform version: 5.8.8-72.28.8 Minimum supported version: 4.2.8-78.68.8 Upgrade from same release as current is supported Evaluate if there are any packages to upgrade Evaluating if there are packages to upgrade... </pre>
<p>21.</p> <input type="checkbox"/>	<p>Output similar to that shown on the right may be observed at the completion of the Application install.</p>	<pre> Executing da81_sds_app_enable.sh... da81_sds_app_enable.sh: 'Nothing to do if fresh install.' Applications Enabled. Running /usr/TKLC/plat/bin/service_conf reconfig UPGRADE IS COMPLETE Waiting for reboot Updating platform revision file... A reboot of the server is required. The server will be rebooted in 18 seconds </pre>
<p>22.</p> <input type="checkbox"/>	<p>After the server has completed reboot, log into the HP server as the "admusr" user.</p>	<p>login: admusr</p> <p>Using keyboard-interactive authentication.</p> <p>Password: <admusr_password></p>
<p>23.</p> <input type="checkbox"/>	<p>Verify that the output contains the line shown to the right indicating a successful installation of SDS application software.</p>	<pre> \$ grep COMPLETE /var/TKLC/log/upgrade/upgrade.log 1321462900.: UPGRADE IS COMPLETE </pre>

Procedure 1: Installing the SDS Application (All SDS NOAM sites)

Step	Procedure	Result
<p>24.</p> <input type="checkbox"/>	<p>Execute verifyUpgrade command to verify status of upgrade.</p> <p>Verify that SDS application release shown matches the target release.</p>	<p>\$ sudo verifyUpgrade</p> <p>Disregard following error during this command execution ERROR: Upgrade log (/var/TKLC/log/upgrade/upgrade.log) reports errors! ERROR: 1513202476::zip error: Nothing to do! (/usr/share/tomcat6/webapps/ohw.war)</p> <p>NOTE: This command should return no output on a healthy system. If any error are reported, please stop and contact Accessing My Oracle Support (MOS) for the assistance</p> <p>\$ rpm -qa grep sds TKLCSds-8.5.0.0.0_90.11.0</p>
<p>25.</p> <input type="checkbox"/>	<p>Accept upgrade to the Application Software.</p>	<p>\$ sudo /var/TKLC/backout/accept</p> <p>Called with options: --accept Loading Upgrade::Backout::RPM Accepting Upgrade Setting POST_UPGRADE_ACTION to ACCEPT in upgrade info. Cleaning backout directory. Clearing Upgrade Accept/Reject alarm. Cleaning message from MOTD. Cleaning up RPM config backup files... Checking / Checking /boot Checking /tmp Checking /usr Checking /var Checking /var/TKLC/rundb Starting cleanup of RCS repository. INFO: Removing '/var/lib/prelink/force' from RCS repository INFO: Removing '/etc/my.cnf' from RCS repository</p>
<p>26.</p> <input type="checkbox"/>	<p>Put the server in trusted time mode</p>	<p>\$ tw.setdate -trusted</p> <p>Current time: 10/22/2014 16:25:07.869</p>
<p>27.</p> <input type="checkbox"/>	<p>Exit from the command line to return the server console to the login prompt.</p>	<p>\$ exit</p>
<p>28.</p> <input type="checkbox"/>	<ul style="list-style-type: none"> Repeat this procedure for each RMS server installed in the cabinet before continuing on to the next procedure. (e.g. SDS NOAM A, SDS NOAM B, Query Server) 	

Procedure 1: Installing the SDS Application (All SDS NOAM sites)

Step	Procedure	Result
THIS PROCEDURE HAS BEEN COMPLETED		

5.0 CONFIGURATION PROCEDURES

5.1 Configuring SDS Servers A and B (1st SDS NOAM site only)

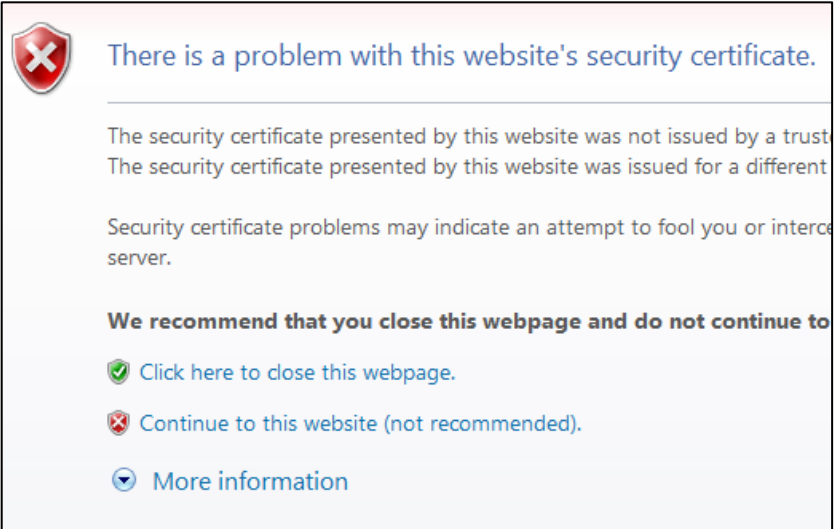
Assumptions:

- This procedure assumes that the SDS Network Element XML file for the Primary Provisioning SDS site has previously been created, as described in **Appendix E**.
- This procedure assumes that the Network Element XML files are either on a USB flash drive or the laptop's hard drive. The steps are written as if the XML files are on a USB flash drive, but the files can exist on any accessible drive.




This procedure requires that the user connects to the SDS GUI prior to configuring the first SDS server. This can be done either by one of two procedures:

1. Configuring a temporary external IP address, as described in Appendix B
2. Plugging a laptop into an unused, unconfigured port on the SDS NOAM-A server using a direct-connect Ethernet cable, as described in Appendix C.

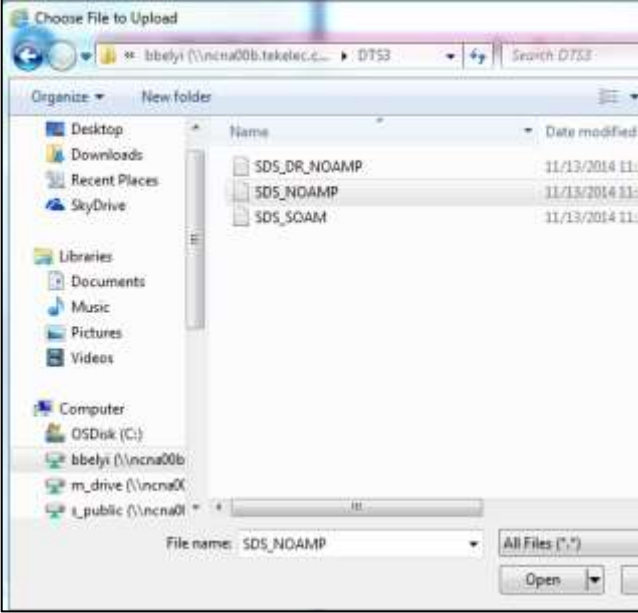

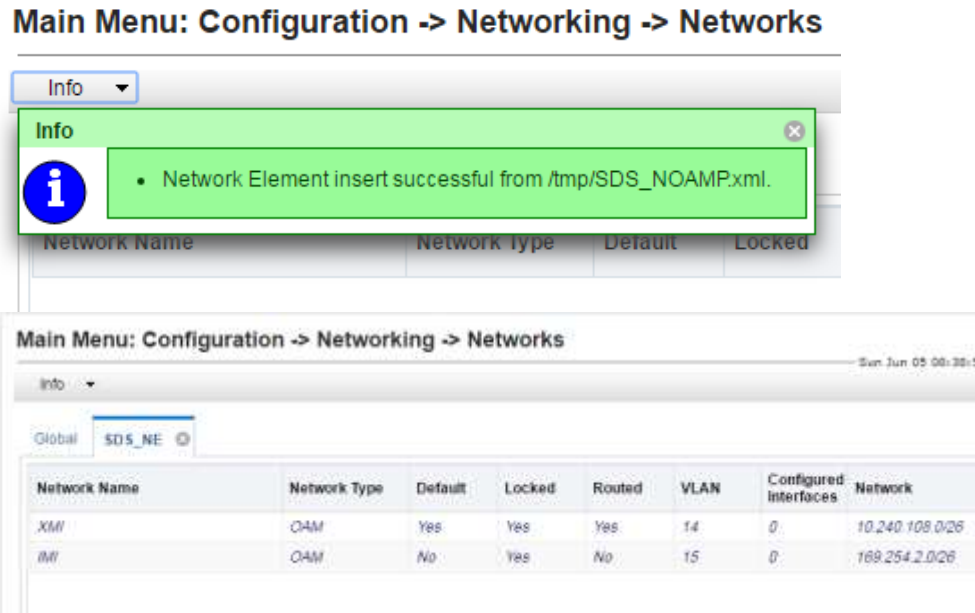
Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result
<p>1.</p> <input type="checkbox"/>	<p>SDS NOAM A:</p> <p>Connect to the SDS GUI.</p>	<ul style="list-style-type: none"> • Execute Appendix C. <i>Establishing a Local Connection for Accessing the SDS GUI</i>
<p>2.</p> <input type="checkbox"/>	<p>SDS NOAM A:</p> <p>Launch an approved web browser and connect to the SDS NOAM A IP address using Appendix B</p> <p>NOTE: <i>If presented with the “security certificate” warning screen shown to the right, choose the following option:</i></p> <p><i>“Continue to this website (not recommended)”.</i></p>	


Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result
<p>3.</p> <p><input type="checkbox"/></p>	<p>SDS NOAM A:</p> <p>The user should be presented the login screen shown on the right.</p> <p>Login to the GUI using the default user and password.</p>	
<p>4.</p> <p><input type="checkbox"/></p>	<p>SDS NOAM A:</p> <p>The user should be presented the SDS Main Menu as shown on the right.</p>	
<p>5.</p> <p><input type="checkbox"/></p>	<p>SDS NOAM A:</p> <p>1) Select...</p> <p>Main Menu → Configuration → Networking → Networks ...as shown on the right.</p> <p>2) Select the "Browse" dialogue button (scroll to bottom left corner of screen).</p>	

Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result																																				
<p>6.</p> <input type="checkbox"/>	<p>SDS NOAM A:</p> <p>Note: This step assumes that the .xml files were previously prepared, as described in Appendix E.</p> <p>1) Select the location containing the site .xml file.</p> <p>2) Select the .xml file and click the “Open” dialogue button.</p>																																					
<p>7.</p> <input type="checkbox"/>	<p>SDS NOAM A:</p> <p>Select the “Upload File” dialogue button (bottom left corner of screen).</p>																																					
<p>8.</p> <input type="checkbox"/>	<p>SDS NOAM A:</p> <p>If the values in the .xml file pass validation rules, the user must select the 'Info' box to receive a banner information message showing that the data has been successfully validated and committed to the DB.</p> <p>NOTE: You may have to left mouse click the “Info” banner option in order to see the banner output.</p>	 <table border="1"> <thead> <tr> <th>Network Name</th> <th>Network Type</th> <th>Default</th> <th>Locked</th> </tr> </thead> <tbody> <tr> <td>XML</td> <td>OAM</td> <td>Yes</td> <td>Yes</td> </tr> <tr> <td>IMV</td> <td>OAM</td> <td>No</td> <td>Yes</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Network Name</th> <th>Network Type</th> <th>Default</th> <th>Locked</th> <th>Routed</th> <th>VLAN</th> <th>Configured Interfaces</th> <th>Network</th> </tr> </thead> <tbody> <tr> <td>XML</td> <td>OAM</td> <td>Yes</td> <td>Yes</td> <td>Yes</td> <td>14</td> <td>0</td> <td>10.240.108.0/26</td> </tr> <tr> <td>IMV</td> <td>OAM</td> <td>No</td> <td>Yes</td> <td>No</td> <td>15</td> <td>0</td> <td>169.254.2.0/26</td> </tr> </tbody> </table>	Network Name	Network Type	Default	Locked	XML	OAM	Yes	Yes	IMV	OAM	No	Yes	Network Name	Network Type	Default	Locked	Routed	VLAN	Configured Interfaces	Network	XML	OAM	Yes	Yes	Yes	14	0	10.240.108.0/26	IMV	OAM	No	Yes	No	15	0	169.254.2.0/26
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Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result																								
<p>9.</p> <p><input type="checkbox"/></p>	<p>SDS NOAM A:</p> <p>1) Select...</p> <p>Main Menu → Configuration ->Networking → Services</p> <p>...as shown on the right.</p> <p>2) The user will be presented with the “Services” configuration screen as shown on the right.</p> <p>3) Select the “Edit” dialogue button.</p>	 <table border="1"> <thead> <tr> <th>Name</th> <th>Intra-NE Network</th> <th>Inter-NE Network</th> </tr> </thead> <tbody> <tr> <td>DAM</td> <td>Unspecified</td> <td>Unspecified</td> </tr> <tr> <td>Replication</td> <td>Unspecified</td> <td>Unspecified</td> </tr> <tr> <td>Signaling</td> <td>Unspecified</td> <td>Unspecified</td> </tr> <tr> <td>HA_Secondary</td> <td>Unspecified</td> <td>Unspecified</td> </tr> <tr> <td>HA_MF_Secondary</td> <td>Unspecified</td> <td>Unspecified</td> </tr> <tr> <td>Replicator_MF</td> <td>Unspecified</td> <td>Unspecified</td> </tr> <tr> <td>ComAgent</td> <td>Unspecified</td> <td>Unspecified</td> </tr> </tbody> </table>	Name	Intra-NE Network	Inter-NE Network	DAM	Unspecified	Unspecified	Replication	Unspecified	Unspecified	Signaling	Unspecified	Unspecified	HA_Secondary	Unspecified	Unspecified	HA_MF_Secondary	Unspecified	Unspecified	Replicator_MF	Unspecified	Unspecified	ComAgent	Unspecified	Unspecified
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ComAgent	Unspecified	Unspecified																								

10.

SDS NOAM A:

1) With the exception of “**Signaling**” which is left “**Unspecified**”, set other services values so that all **Intra-NE Network** traffic is directed across **IMI** and all **Inter-NE Network** traffic is across **XMI**.

2) Select the “**Apply**” dialogue button.

3) Select “**OK**” in new pop up GUI to change the effect,

Main Menu: Configuration -> Networking -> Services [Edit]


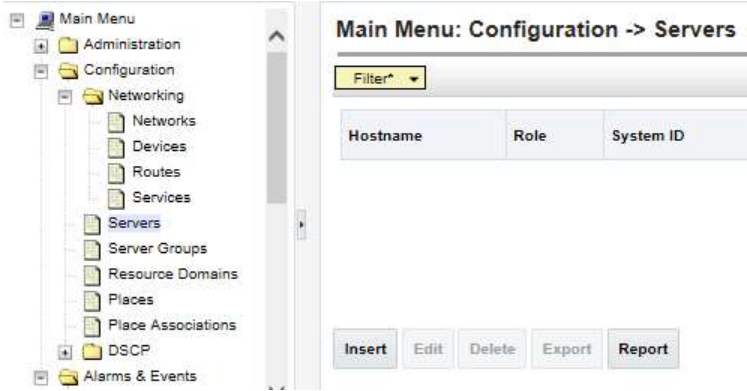
Services

Name	Intra-NE Network	Inter-NE Network
OAM	INTERNALIMI ▼	INTERNALXMI ▼
Replication	INTERNALIMI ▼	INTERNALXMI ▼
Signaling	Unspecified ▼	Unspecified ▼
HA_Secondary	INTERNALIMI ▼	INTERNALXMI ▼
HA_MP_Secondary	INTERNALIMI ▼	INTERNALXMI ▼
Replication_MP	INTERNALIMI ▼	INTERNALXMI ▼
ComAgent	INTERNALIMI ▼	INTERNALXMI ▼

F 100.65.33.69 says:

a You must restart the applications running on all servers to apply any services changes.
TO RESTART: Use "Restart" button under Status & Manage->Server tab, ComAgent

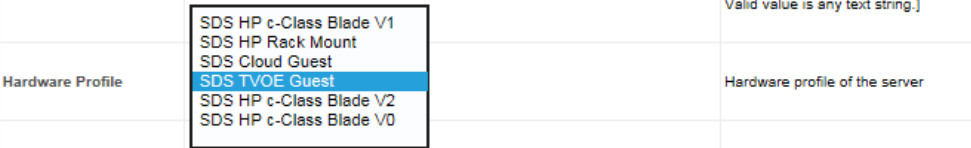
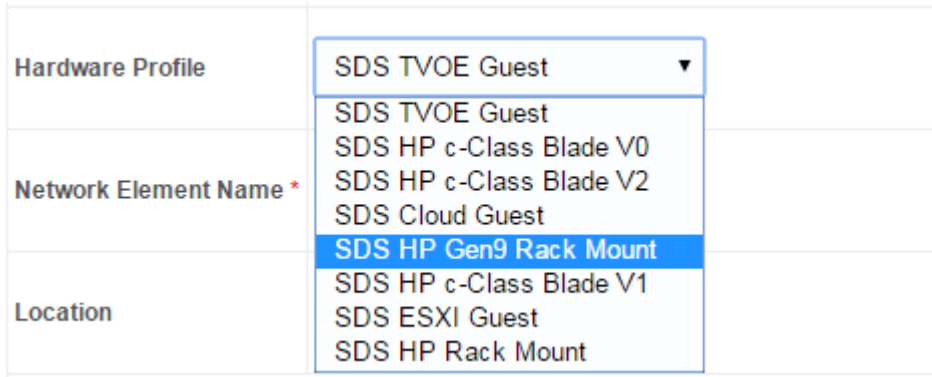
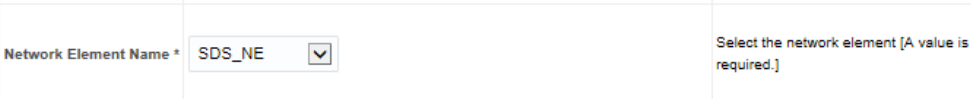

Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result																											
<p>11.</p> <p><input type="checkbox"/></p>	<p>SDS NOAM A:</p> <p>The user will be presented with the “Services” configuration screen as shown on the right</p>	 <table border="1"> <thead> <tr> <th>Name</th> <th>Role</th> <th>System ID</th> </tr> </thead> <tbody> <tr> <td>Intra-RE Network</td> <td>INTERNAL_000</td> <td>INTERNAL_000</td> </tr> <tr> <td>OSM</td> <td>INTERNAL_000</td> <td>INTERNAL_000</td> </tr> <tr> <td>Replicator</td> <td>INTERNAL_000</td> <td>INTERNAL_000</td> </tr> <tr> <td>Signaling</td> <td>Unspecified</td> <td>Unspecified</td> </tr> <tr> <td>HA_Secondary</td> <td>INTERNAL_000</td> <td>INTERNAL_000</td> </tr> <tr> <td>HA_IP_Secondary</td> <td>INTERNAL_000</td> <td>INTERNAL_000</td> </tr> <tr> <td>Replicator_IP</td> <td>INTERNAL_000</td> <td>INTERNAL_000</td> </tr> <tr> <td>Convergent</td> <td>INTERNAL_000</td> <td>INTERNAL_000</td> </tr> </tbody> </table>	Name	Role	System ID	Intra-RE Network	INTERNAL_000	INTERNAL_000	OSM	INTERNAL_000	INTERNAL_000	Replicator	INTERNAL_000	INTERNAL_000	Signaling	Unspecified	Unspecified	HA_Secondary	INTERNAL_000	INTERNAL_000	HA_IP_Secondary	INTERNAL_000	INTERNAL_000	Replicator_IP	INTERNAL_000	INTERNAL_000	Convergent	INTERNAL_000	INTERNAL_000
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Convergent	INTERNAL_000	INTERNAL_000																											
<p>12.</p> <p><input type="checkbox"/></p>	<p>SDS NOAM A:</p> <p>1) Select... Main Menu → Configuration → Servers ...as shown on the right.</p> <p>2) Select the “Insert” dialogue button.</p>	 <p>Note: This step thru the last step of this procedure need to be done for both servers SDS NOAM A and SDS NOAM B.</p>																											

Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result														
<p>13.</p> <input type="checkbox"/>	<p>SDS NOAM A:</p> <p>The user is now presented with the “Adding a new server” configuration screen.</p>	<p>Adding a new server</p> <table border="1"> <thead> <tr> <th>Attribute</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>Hostname *</td> <td><input type="text"/></td> </tr> <tr> <td>Role *</td> <td>- Select Role - <input type="button" value="v"/></td> </tr> <tr> <td>System ID</td> <td><input type="text"/></td> </tr> <tr> <td>Hardware Profile</td> <td>SDS HP c-Class Blade V1 <input type="button" value="v"/></td> </tr> <tr> <td>Network Element Name *</td> <td>- Unassigned - <input type="button" value="v"/></td> </tr> <tr> <td>Location</td> <td><input type="text"/></td> </tr> </tbody> </table> <p>Ok Apply Cancel</p>	Attribute	Value	Hostname *	<input type="text"/>	Role *	- Select Role - <input type="button" value="v"/>	System ID	<input type="text"/>	Hardware Profile	SDS HP c-Class Blade V1 <input type="button" value="v"/>	Network Element Name *	- Unassigned - <input type="button" value="v"/>	Location	<input type="text"/>
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Location	<input type="text"/>															
<p>14.</p> <input type="checkbox"/>	<p>SDS NOAM A:</p> <p>Input the assigned “hostname” for the SDS NOAM (A or B).</p>	<table border="1"> <thead> <tr> <th>Attribute</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Hostname *</td> <td>sds-no-a</td> <td>Unique name for the server. [Default = n/a. Range = A 20-character string. Valid characters are alphanumeric and minus sign. Must start with an alphanumeric and end with an alphanumeric.] [A value is required.]</td> </tr> </tbody> </table>	Attribute	Value	Description	Hostname *	sds-no-a	Unique name for the server. [Default = n/a. Range = A 20-character string. Valid characters are alphanumeric and minus sign. Must start with an alphanumeric and end with an alphanumeric.] [A value is required.]								
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<p>15.</p> <input type="checkbox"/>	<p>SDS NOAM A:</p> <p>Select “NETWORK OAM&P” for the server “Role” from the pull-down menu.</p>	<table border="1"> <tbody> <tr> <td>Role *</td> <td> <input type="button" value="v"/> <ul style="list-style-type: none"> - Select Role - NETWORK OAM&P SYSTEM OAM MP QUERY SERVER </td> <td>Select the function of the server [A value is required.]</td> </tr> </tbody> </table>	Role *	<input type="button" value="v"/> <ul style="list-style-type: none"> - Select Role - NETWORK OAM&P SYSTEM OAM MP QUERY SERVER 	Select the function of the server [A value is required.]											
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<p>16.</p>	<p>SDS NOAM A:</p> <p>Input the assigned hostname again as the “System ID” for the SDS NOAM (A or B).</p>	<table border="1"> <tbody> <tr> <td>System ID</td> <td>sds-no-a <input type="button" value="x"/></td> <td>System ID for the NOAMP or SOAM server. [Default = n/a. Range = A 64-character string. Valid value is any text string.]</td> </tr> </tbody> </table>	System ID	sds-no-a <input type="button" value="x"/>	System ID for the NOAMP or SOAM server. [Default = n/a. Range = A 64-character string. Valid value is any text string.]											
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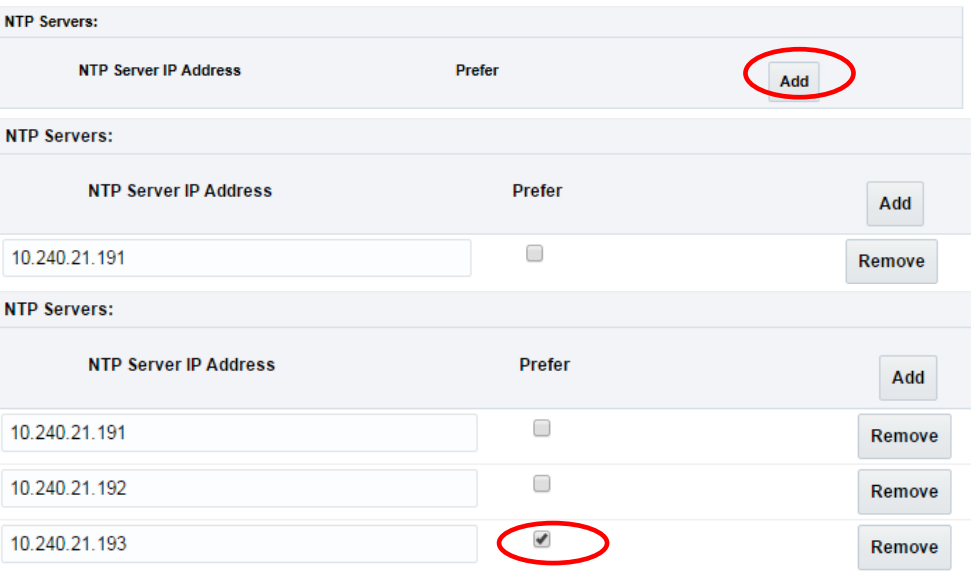
Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result
<p>17.</p> <input type="checkbox"/>	<p>SDS NOAM A:</p> <p>For Gen8: Select “SDS HP Rack Mount” for the Hardware Profile for the SDS from the pull-down menu.</p> <p>For Gen9: Select “SDS HP Gen9 Rack Mount” for the Hardware Profile for the SDS from the pull-down menu.</p>	<p>For Gen8 select “SDS HP Rack Mount” from the Hardware Profile pull-down menu.</p>  <p>For Gen9 Select “SDS HP Gen9 Rack Mount” from the Hardware Profile pull-down menu.</p> 
<p>18.</p> <input type="checkbox"/>	<p>SDS NOAM A:</p> <p>Select the Network Element Name for the SDS from the pull-down menu.</p>	 <p>Select the network element [A value is required.]</p>
<p>19.</p> <input type="checkbox"/>	<p>SDS NOAM A:</p> <p>Enter the site location.</p> <p>NOTE: Location is an optional field.</p>	 <p>Location description [Default = "". Range = A 15-character string. Valid value is any text string.]</p>

Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result																															
<p>20.</p> <p><input type="checkbox"/></p>	<p>SDS NOAM A:</p> <p>1) Enter the MgmtVLAN IP address for the SDS Server.</p> <p>2) Set the MgmtVLAN Interface to “bond0” and “check” the VLAN checkbox.</p> <p>3) Enter the IMI IP address for the SDS Server.</p> <p>4) Set the IMI Interface to “bond0” and “check” the VLAN checkbox.</p>	<div style="border: 1px solid #ccc; padding: 5px;"> <p>OAM Interfaces [At least one interface is required.]:</p> <table border="1"> <thead> <tr> <th>Network</th> <th>IP Address</th> <th>Interface</th> </tr> </thead> <tbody> <tr> <td>MGMT_VLAN (191.168.1.0/22)</td> <td>191.240.1.11</td> <td>bond0 <input type="checkbox"/> VLAN (2)</td> </tr> <tr> <td>INTERNALXMI (10.240.20.0/22)</td> <td>10.240.20.2</td> <td>bond1 <input type="checkbox"/> VLAN (3)</td> </tr> <tr> <td>INTERNALIMI (192.168.2.0/24)</td> <td>192.168.2.100</td> <td>bond0 <input type="checkbox"/> VLAN (4)</td> </tr> </tbody> </table> </div> <table border="1"> <thead> <tr> <th>SDS Server (Primary NOAM)</th> <th>Network</th> <th>IP Address</th> <th>Interface</th> <th>VLAN Checkbox</th> </tr> </thead> <tbody> <tr> <td rowspan="2">SDS-A</td> <td>MgmtVLAN</td> <td>169.254.1.11</td> <td rowspan="2">bond0</td> <td rowspan="2"><input checked="" type="checkbox"/></td> </tr> <tr> <td>IMI</td> <td>169.254.100.11</td> </tr> <tr> <td rowspan="2">SDS-B</td> <td>MgmtVLAN</td> <td>169.254.1.12</td> <td rowspan="2">bond0</td> <td rowspan="2"><input checked="" type="checkbox"/></td> </tr> <tr> <td>IMI</td> <td>169.254.100.12</td> </tr> </tbody> </table> <p>NOTE_1: These IP addresses are based on the info in the NAPD and the Network Element Config file</p> <p>NOTE_2: The MgmtVLAN should only be present when 4948E-F Aggregation Switches are deployed with SDS NOAM / Query Server RMS. If the MgmtVLAN is not present, the IMI network values shown above still apply.</p>	Network	IP Address	Interface	MGMT_VLAN (191.168.1.0/22)	191.240.1.11	bond0 <input type="checkbox"/> VLAN (2)	INTERNALXMI (10.240.20.0/22)	10.240.20.2	bond1 <input type="checkbox"/> VLAN (3)	INTERNALIMI (192.168.2.0/24)	192.168.2.100	bond0 <input type="checkbox"/> VLAN (4)	SDS Server (Primary NOAM)	Network	IP Address	Interface	VLAN Checkbox	SDS-A	MgmtVLAN	169.254.1.11	bond0	<input checked="" type="checkbox"/>	IMI	169.254.100.11	SDS-B	MgmtVLAN	169.254.1.12	bond0	<input checked="" type="checkbox"/>	IMI	169.254.100.12
Network	IP Address	Interface																															
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SDS Server (Primary NOAM)	Network	IP Address	Interface	VLAN Checkbox																													
SDS-A	MgmtVLAN	169.254.1.11	bond0	<input checked="" type="checkbox"/>																													
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SDS-B	MgmtVLAN	169.254.1.12	bond0	<input checked="" type="checkbox"/>																													
	IMI	169.254.100.12																															

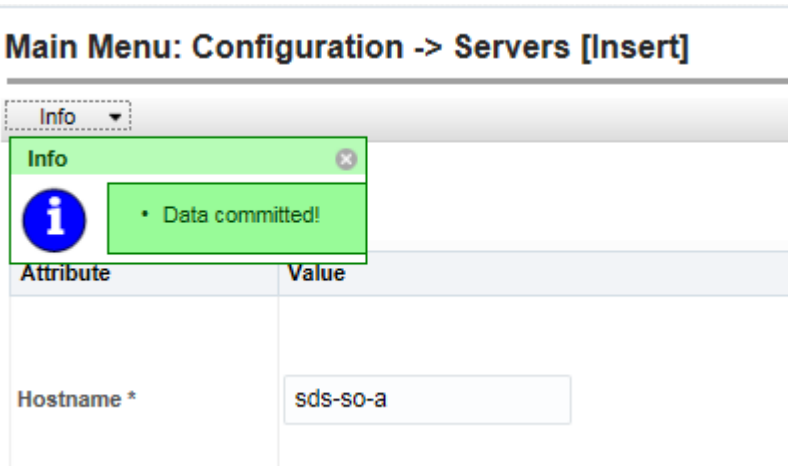
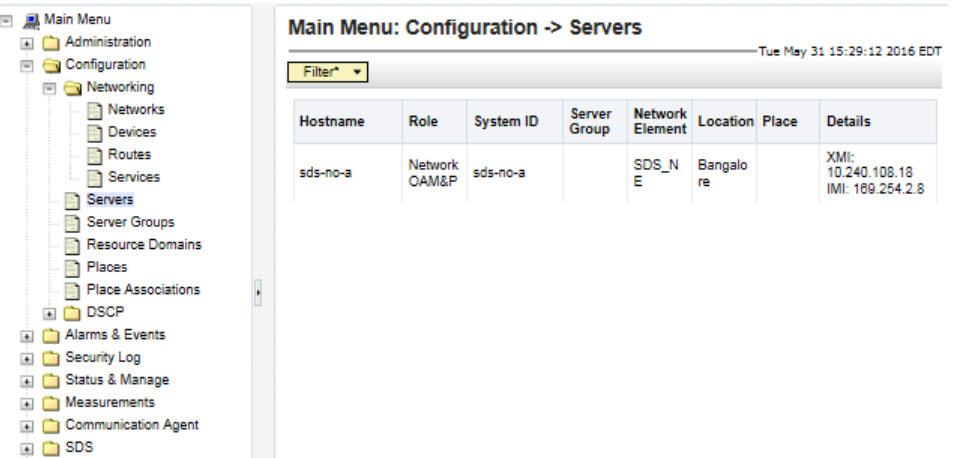
Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result															
<p>21.</p> <p><input type="checkbox"/></p>	<p>1) Enter the customer assigned XMI IP address for the SDS Server.</p> <p>Layer 3 (No VLAN tagging used for XMI)</p> <p>2) Set the XMI Interface to “bond1” and “DO NOT check” the VLAN checkbox.</p> <p>- OR -</p> <p>Layer 2 (VLAN tagging used for XMI)</p> <p>2) Set the XMI Interface to “bond0” and “check” the VLAN checkbox.</p>	 <table border="1"> <thead> <tr> <th>SDS Server (Primary NOAM)</th> <th>Network</th> <th>VLAN tagging (on XMI network)</th> <th>Interface</th> <th>VLAN Checkbox</th> </tr> </thead> <tbody> <tr> <td>SDS NOAM Server (A or B)</td> <td>XMI</td> <td>No</td> <td>bond1</td> <td>✗</td> </tr> <tr> <td></td> <td></td> <td>Yes</td> <td>bond0</td> <td>✓</td> </tr> </tbody> </table> <p>!!! CAUTION!!! It is crucial that the correct network configuration be selected in Steps 20 & 21 of this procedure. Choosing an incorrect configuration will result in the need to re-install the OS and restart SDS installation procedures over from the beginning.</p>	SDS Server (Primary NOAM)	Network	VLAN tagging (on XMI network)	Interface	VLAN Checkbox	SDS NOAM Server (A or B)	XMI	No	bond1	✗			Yes	bond0	✓
SDS Server (Primary NOAM)	Network	VLAN tagging (on XMI network)	Interface	VLAN Checkbox													
SDS NOAM Server (A or B)	XMI	No	bond1	✗													
		Yes	bond0	✓													
<p>22.</p> <p><input type="checkbox"/></p>	<p>SDS NOAM A:</p> <p>1) Click the “NTP Servers:” “Add” dialogue button.</p> <p>2) Enter the NTP Server IP Address for an NTP Server.</p> <p>3) Enter 3 NTP Server IP address, repeat (1) and (2) to enter it.</p> <p>4) Optionally, click the “Prefer” checkbox to prefer one NTP Server over the other.</p>																

Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result														
<p>23.</p> <p><input type="checkbox"/></p>	<p>SDS NOAM A:</p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Click the “Apply” dialogue button.</p>	<p>Main Menu: Configuration -> Servers [Insert]</p> <p>Info</p> <p>Info</p> <ul style="list-style-type: none"> • Pre-Validation passed - Data NOT committed ... <table border="1"> <thead> <tr> <th>Attribute</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>Hostname *</td> <td>sds-so-a</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Network</th> <th>IP Address</th> </tr> </thead> <tbody> <tr> <td>XMI (10.240.108.0/26)</td> <td>10.240.108.21</td> </tr> <tr> <td>IMI (169.254.2.0/26)</td> <td>169.254.2.11</td> </tr> </tbody> </table> <p>NTP Servers:</p> <table border="1"> <thead> <tr> <th>NTP Server IP Address</th> <th>Prefer</th> </tr> </thead> <tbody> <tr> <td>10.250.32.10</td> <td><input type="checkbox"/></td> </tr> </tbody> </table> <p>Ok Apply Cancel</p>	Attribute	Value	Hostname *	sds-so-a	Network	IP Address	XMI (10.240.108.0/26)	10.240.108.21	IMI (169.254.2.0/26)	169.254.2.11	NTP Server IP Address	Prefer	10.250.32.10	<input type="checkbox"/>
Attribute	Value															
Hostname *	sds-so-a															
Network	IP Address															
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IMI (169.254.2.0/26)	169.254.2.11															
NTP Server IP Address	Prefer															
10.250.32.10	<input type="checkbox"/>															

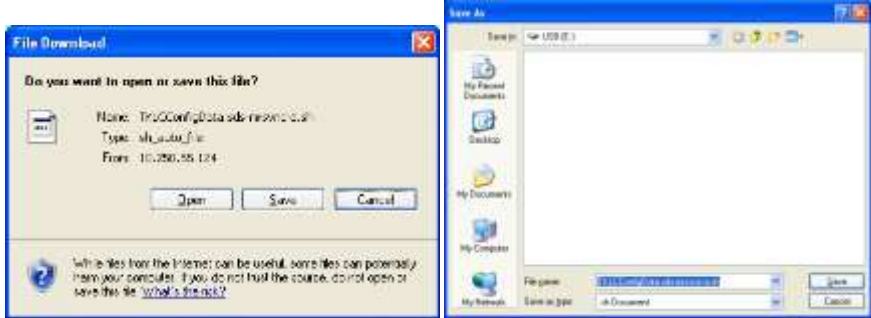
Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result																
<p>24.</p> <p><input type="checkbox"/></p>	<p>SDS NOAM A:</p> <p>If the values provided match the network ranges assigned to the SDS NE, the user must select the 'Info' box to receive a banner information message showing that the data has been validated and committed to the DB.</p>																	
<p>25.</p> <p><input type="checkbox"/></p>	<p>SDS NOAM A:</p> <p>Select...</p> <p>Main Menu → Configuration → Servers</p> <p>...as shown on the right.</p>																	
<p>26.</p> <p><input type="checkbox"/></p>	<p>SDS NOAM A:</p> <p>The “Configuration → Servers” screen should now show the newly added SDS Server in the list.</p>	<table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>System ID</th> <th>Server Group</th> <th>Network Element</th> <th>Location</th> <th>Place</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>sds-no-a</td> <td>Network OAM&P</td> <td>sds-no-a</td> <td></td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> <td>XMI: 10.240.108.18 IMI: 189.254.2.8</td> </tr> </tbody> </table>	Hostname	Role	System ID	Server Group	Network Element	Location	Place	Details	sds-no-a	Network OAM&P	sds-no-a		SDS_NE	Bangalore		XMI: 10.240.108.18 IMI: 189.254.2.8
Hostname	Role	System ID	Server Group	Network Element	Location	Place	Details											
sds-no-a	Network OAM&P	sds-no-a		SDS_NE	Bangalore		XMI: 10.240.108.18 IMI: 189.254.2.8											



Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result																
<p>27.</p> <p><input type="checkbox"/></p>	<p>SDS NOAM A:</p> <p>1) Use the cursor to select the SDS Server entry added in Steps 12 - 24.</p> <p>The row containing the desired SDS Server should now be highlighted.</p> <p>2) Select the “Export” dialogue button.</p>	<p>Main Menu: Configuration -> Servers</p> <p style="text-align: right;">Tue May 31 15:29:12 2016 EDT</p> <p>Filter* ▼</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>System ID</th> <th>Server Group</th> <th>Network Element</th> <th>Location</th> <th>Place</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>sds-no-a</td> <td>Network OAM&P</td> <td>sds-no-a</td> <td></td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> <td> XML: 10.240.108.18 IMI: 169.254.2.8 </td> </tr> </tbody> </table> <p>Insert Edit Delete Export Report</p> <p>SKIP Step 28 to 36 for Server A (means first server) as TKLCConfig file will be already on server A.</p>	Hostname	Role	System ID	Server Group	Network Element	Location	Place	Details	sds-no-a	Network OAM&P	sds-no-a		SDS_NE	Bangalore		XML: 10.240.108.18 IMI: 169.254.2.8
Hostname	Role	System ID	Server Group	Network Element	Location	Place	Details											
sds-no-a	Network OAM&P	sds-no-a		SDS_NE	Bangalore		XML: 10.240.108.18 IMI: 169.254.2.8											
<p>28.</p> <p><input type="checkbox"/></p>	<p>SDS NOAM A:</p> <p>The user must select the 'Info' box to receive a banner information message showing a download link for the SDS Server configuration data.</p> <p>Click on the word “downloaded” to download and save the configuration file.</p> <p>NOTE: <i>This step can be skipped for SDS Server A because the file should already exist.</i></p>	<p>Main Menu: Configuration -> Servers</p> <p>Filter* ▼ Info ▼</p> <p>Info</p> <p>• Exported server data in TKLCConfigData.sds-no-a.sh may be downloaded</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>System ID</th> <th>Server Group</th> <th>Network Element</th> <th>Location</th> <th>Place</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>sds-no-a</td> <td>OAM&P</td> <td>sds-no-a</td> <td></td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> <td></td> </tr> </tbody> </table> <p>Note: You may be required to click the Info tab to display the Info banner shown here.</p>	Hostname	Role	System ID	Server Group	Network Element	Location	Place	Details	sds-no-a	OAM&P	sds-no-a		SDS_NE	Bangalore		
Hostname	Role	System ID	Server Group	Network Element	Location	Place	Details											
sds-no-a	OAM&P	sds-no-a		SDS_NE	Bangalore													

Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result
<p>29.</p> <input type="checkbox"/>	<p>SDS NOAM A:</p> <p>1) Click the “Save” dialogue button.</p> <p>2) Save the SDS Server configuration file to a USB flash drive.</p> <p>NOTE: This step can be skipped for SDS Server A because the file should already exist.</p>	
<p>30.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>Access the server console.</p> <p>NOTE: This step can be skipped for SDS Server A because the file should already exist.</p>	<p>Connect to the SDS NOAM-A and SDS NOAM-B console using one of the access methods described in Section 2.3.</p>
<p>31.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>1) Access the command prompt.</p> <p>2) Log into the server as the “admusr” user.</p> <p>NOTE: This step can be skipped for SDS Server A because the file should already exist.</p>	<p>login: admusr</p> <p>Using keyboard-interactive authentication.</p> <p>Password: <admusr_password></p>



Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result
<p>32.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>Insert the USB flash drive containing the server configuration file into the USB port on the front panel of SDS Server.</p> <p>NOTE: <i>This step can be skipped for SDS Server A because the file should already exist.</i></p>	 <p>Figure 3 - HP DL380 Gen8, Front Panel (USB Port)</p>  <p>Figure 4 - HP DL380 Gen9, Front Panel (USB Port)</p>
<p>33.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>Output similar to that shown on the right will appear as the USB flash drive is inserted into the SDS Server front USB port.</p> <p>NOTE: <i>This step can be skipped for SDS Server A because the file should already exist.</i></p>	<pre>\$ sd 3:0:0:0: [sdb] Assuming drive cache: write through sd 3:0:0:0: [sdb] Assuming drive cache: write through <ENTER></pre> <p>NOTE: <i>Press the <ENTER> key to return to the command prompt.</i></p>
<p>34.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>Verify that the USB flash drive's partition has been mounted by the OS: Search df for the device named in the previous step's output.</p> <p>NOTE: <i>This step can be skipped for SDS Server A because the file should already exist.</i></p>	<pre>\$ df grep sdb /dev/sdb1 2003076 8 2003068 1% /media/sdb1</pre>

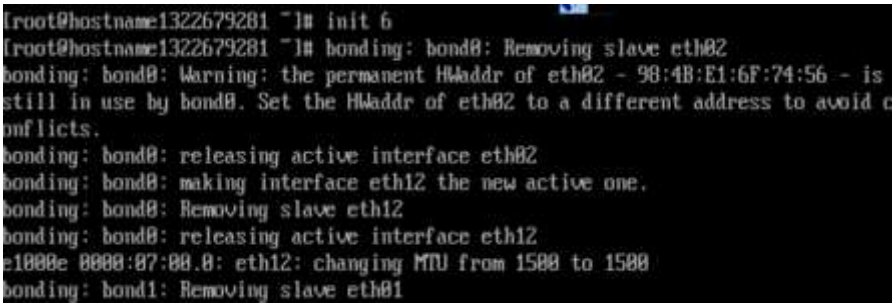
Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result
<p>35.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>Copy the configuration file to the SDS server</p> <p>NOTE: This step can be skipped for SDS Server A because the file should already exist.</p>	<p>\$ sudo cp -p /media/sdb1/TKLCConfigData.sds-mrsvnc-a.sh /var/TKLC/db/filegmt/.</p> <p>NOTE: If Appendix C was used to create this interface, un-configure the interface before copying this file.</p>
<p>36.</p> <input type="checkbox"/>	<p>Unmount the USB drive partition.</p> <p>NOTE: This step can be skipped for SDS Server A because the file should already exist.</p>	<p>\$ sudo umount /media/sdb1</p> <p>\$</p>
<p>37.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>Copy the server configuration file to the “/var/tmp” directory on the server, making sure to rename the file by omitting the server hostname from the file name.</p>	<p>Example:</p> <p>TKLCConfigData<.server_hostname>.sh → will translate to →TKLCConfigData.sh</p> <p>\$ sudo cp -p /var/TKLC/db/filegmt/TKLCConfigData.sds-mrsvnc-a.sh /var/tmp/TKLCConfigData.sh</p> <p>NOTE: The server will poll the /var/tmp directory for the presence of the configuration file and automatically execute it when found.</p>
<p>38.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>After the script completes, a broadcast message will be sent to the terminal.</p>	<p>*** NO OUTPUT FOR ≈ 3-20 MINUTES ***</p> <p>Broadcast message from admusr (Thu Dec 1 09:41:24 2011):</p> <p>Server configuration completed successfully!</p> <p>See /var/TKLC/appw/logs/Process/install.log for details.</p> <p>Please remove the USB flash drive if connected and reboot the server.</p> <p>NOTE: The user should be aware that the time to complete this step varies by server and may take 3 ...20 minutes to complete.</p>



Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result
<p>39.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>Remove the USB flash drive from the USB port on the front panel of the server.</p> <p>CAUTION: <i>It is important that the USB flash drive be REMOVED from the server before continuing on to the next step.</i></p>	 <p>Figure 3 - HP DL380 Gen8, Front Panel (USB Port)</p>  <p>Figure 4 - HP DL380 Gen9, Front Panel (USB Port)</p>
<p>40.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>Ignore the output shown and press the <ENTER> key to return to the command prompt.</p>	<p>Broadcast message from admusr (Thu Dec 1 09:41:24 2011): Server configuration completed successfully! See /var/TKLC/appw/logs/Process/install.log for details. Please remove the USB flash drive if connected and reboot the server. <ENTER></p>
<p>41.</p>	<p>SDS Server NOAM A or B:</p> <p>Verify that the desired Time Zone is currently in use.</p>	<p>\$ date Mon Aug 10 19:34:51 UTC 2015</p>
<p>42.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>If the desired Time Zone was not presented in the previous step...</p> <p>Configure the Time Zone.</p> <p>Otherwise, skip to the next step.</p>	<p>Example: \$ sudo set_ini_tz.pl <time_zone></p> <p>NOTE: <i>The following command example sets the time to the “UTC” (aka GMT) time zone which is recommended for all sites. The user may replace, as appropriate, with the customer requested time zone for this site installation. See Appendix G for a list of valid time zones.</i></p> <p>\$ sudo set_ini_tz.pl “Etc/UTC”</p> <p>NOTE:- This is required to be for first server (NOAM). Rest of server will get TKLCconfig file generated on Active NOAM server and the TKLCconfig file will take care of time zone also.</p>
<p>43.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>Initiate a reboot of the SDS Server.</p>	<p>\$ sudo init 6</p>

Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result
<p>44.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>Wait ~9 minutes</p> <p>Output similar to that shown on the right may be observed as the server initiates a reboot.</p>	 <pre> root@hostname1322679281 ~]# init 6 root@hostname1322679281 ~]# bonding: bond0: Removing slave eth02 bonding: bond0: Warning: the permanent Hwaddr of eth02 - 98:4B:E1:6F:74:56 - is still in use by bond0. Set the Hwaddr of eth02 to a different address to avoid c onflicts. bonding: bond0: releasing active interface eth02 bonding: bond0: making interface eth12 the new active one. bonding: bond0: Removing slave eth12 bonding: bond0: releasing active interface eth12 e1000e 0000:07:00.0: eth12: changing MTU from 1500 to 1500 bonding: bond1: Removing slave eth01 </pre>
<p>45.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>After the server has completed reboot, log into the server as the “admusr” user.</p>	<p>login: admusr</p> <p>Using keyboard-interactive authentication.</p> <p>Password: <admusr_password></p>
<p>46.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>1) Verify that the IMI IP address and the bond VLAN configuration input in Step 20 has been correctly applied.</p> <p>2) Verify that the XMI IP address and the bond configuration input in Step 21 has been correctly applied.</p> <p>NOTE: The server's XMI & IMI addresses can also be verified by reviewing the server configuration through the SDS GUI under [Main Menu → Configuration → Server] screen.</p>	<p>\$ ifconfig grep in</p> <pre> bond0 Link encap:Ethernet HWaddr 98:4B:E1:6F:74:68 bond0.4 Link encap:Ethernet HWaddr 98:4B:E1:6F:74:68 inet addr:169.254.100.11 Bcast:169.254.100.255 Mask:255.255.255.0 bond1 Link encap:Ethernet HWaddr 98:4B:E1:6F:74:6A inet addr:10.250.55.124 Bcast:10.250.55.255 Mask:255.255.255.0 eth01 Link encap:Ethernet HWaddr 98:4B:E1:6F:74:68 eth02 Link encap:Ethernet HWaddr 98:4B:E1:6F:74:6A eth11 Link encap:Ethernet HWaddr 98:4B:E1:6F:74:68 eth12 Link encap:Ethernet HWaddr 98:4B:E1:6F:74:6A lo Link encap:Local Loopback inet addr:127.0.0.1 Mask:255.0.0.0 </pre>

Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result
<p>47.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>Use the “ntpq” command to verify that the server has connectivity to the assigned Primary and Secondary NTP server(s).</p>	<pre>\$ ntpq -np remote refid st t when poll reach delay offset jitter ===== *10.250.32.10 192.5.41.209 2 u 1 64 1 0.176 -0.446 0.053 10.250.32.51 192.5.41.209 2 u 2 64 1 0.174 -0.445 0.002</pre>
<div style="display: flex; align-items: center;">  <p>IF CONNECTIVITY TO THE NTP SERVER(S) CANNOT BE ESTABLISHED, STOP AND EXECUTE THE FOLLOWING STEPS:</p> <ol style="list-style-type: none"> 1) Have the Customer IT group provide a network path from the SDS NOAM Server XMI IP to the assigned NTP Server IP addresses. 2) Once network connectivity is established to the configured NTP Servers, then restart this procedure beginning with STEP 47. </div>		
<p>48.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>Execute a “syscheck” to verify the current health of the server.</p>	<pre>\$ sudo syscheck Running modules in class system... OK Running modules in class proc... OK Running modules in class net... OK Running modules in class hardware... OK Running modules in class disk... OK LOG LOCATION: /var/TKLCL/log/syscheck/fail_log</pre>
<p>49.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>Exit to return to the login prompt.</p>	<pre>\$ exit</pre>
<p>50.</p> <input type="checkbox"/>	<ul style="list-style-type: none"> • Configure SDS Server B by repeating steps 13 - 50 of this procedure. 	
<div style="display: flex; align-items: center;">  <p>IF AGGREGATION SWITCHES ARE INSTALLED AND 4948E-F SWITCH CONFIGURATION HAS NOT BEEN COMPLETED PRIOR TO THIS STEP, STOP AND EXECUTE THE FOLLOWING PROCEDURES:</p> <ol style="list-style-type: none"> 1) APPENDIX D.1 2) APPENDIX D.2 (<i>Appendix E.2 references Appendix E.3 where applicable.</i>) </div>		

Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result
<p>51.</p> <input type="checkbox"/>	<p>SDS Server NOAM A:</p> <p>From SDS Server NOAM A, “ping” the IMI IP address configured for on SDS Server B.</p>	<pre>\$ ping -c 5 169.254.100.12 PING 169.254.100.12 (169.254.100.12) 56(84) bytes of data. 64 bytes from 169.254.100.12: icmp_seq=1 ttl=64 time=0.020 ms 64 bytes from 169.254.100.12: icmp_seq=2 ttl=64 time=0.026 ms 64 bytes from 169.254.100.12: icmp_seq=3 ttl=64 time=0.025 ms 64 bytes from 169.254.100.12: icmp_seq=4 ttl=64 time=0.025 ms 64 bytes from 169.254.100.12: icmp_seq=5 ttl=64 time=0.026 ms --- 169.254.100.12 ping statistics --- 5 packets transmitted, 5 received, 0% packet loss, time 4000ms rtt min/avg/max/mdev = 0.020/0.024/0.026/0.005 ms</pre>
<p>52.</p> <input type="checkbox"/>	<p>SDS Server NOAM A:</p> <p>From SDS Server NOAM A, “ping” the XMI IP address configured for on SDS Server B.</p>	<pre>\$ ping -c 5 10.250.55.125 PING 10.250.55.125 (10.250.55.125) 56(84) bytes of data. 64 bytes from 10.250.55.125: icmp_seq=1 ttl=64 time=0.166 ms 64 bytes from 10.250.55.125: icmp_seq=2 ttl=64 time=0.139 ms 64 bytes from 10.250.55.125: icmp_seq=3 ttl=64 time=0.176 ms 64 bytes from 10.250.55.125: icmp_seq=4 ttl=64 time=0.209 ms 64 bytes from 10.250.55.125: icmp_seq=5 ttl=64 time=0.179 ms --- 10.250.55.125 ping statistics --- 5 packets transmitted, 5 received, 0% packet loss, time 4000ms rtt min/avg/max/mdev = 0.139/0.173/0.209/0.028 ms</pre>
<p>53.</p>	<p>SDS Server NOAM A:</p> <p>Use “ping” to verify that SDS Server NOAM A can reach the configured XMI Gateway address.</p>	<pre>\$ ping -c 5 10.250.55.1 PING 10.250.55.1 (10.250.55.1) 56(84) bytes of data. 64 bytes from 10.250.55.1: icmp_seq=1 ttl=64 time=0.166 ms 64 bytes from 10.250.55.1: icmp_seq=2 ttl=64 time=0.139 ms 64 bytes from 10.250.55.1: icmp_seq=3 ttl=64 time=0.176 ms 64 bytes from 10.250.55.1: icmp_seq=4 ttl=64 time=0.209 ms 64 bytes from 10.250.55.1: icmp_seq=5 ttl=64 time=0.179 ms --- 10.250.55.1 ping statistics --- 5 packets transmitted, 5 received, 0% packet loss, time 4000ms rtt min/avg/max/mdev = 0.139/0.173/0.209/0.028 ms</pre>

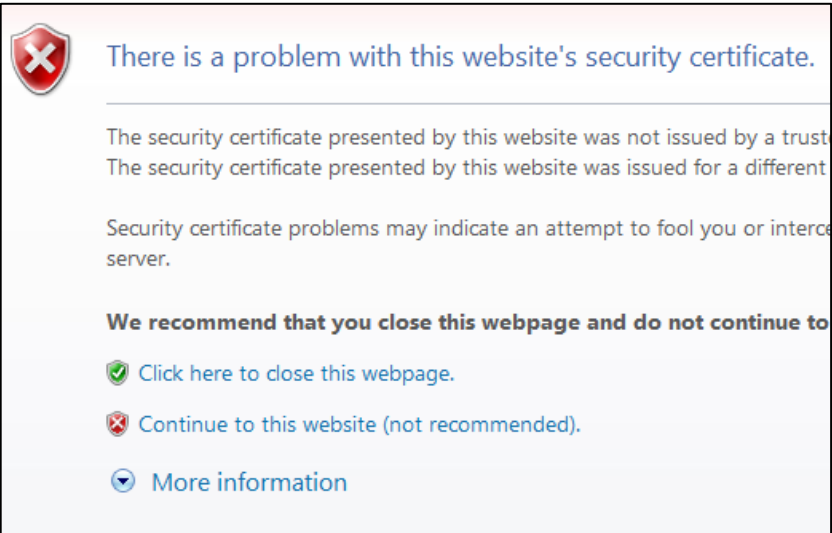

Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result
<p>58.</p> <input type="checkbox"/>	<p>Laptop:</p> <p>Set a static IP address and netmask within the Management VLAN for the laptop's network interface card (169.254.1.100 is suggested).</p>	<ul style="list-style-type: none"> Reference Appendix C. Steps 6-7 if assistance is needed in modifying the laptop's network configuration.
<p>59.</p> <input type="checkbox"/>	<p>SDS Server NOAM A:</p> <p>Using SSH, login to Server NOAM A using its Management VLAN IP address 169.254.1.11</p>	<p>login: admusr</p> <p>Using keyboard-interactive authentication.</p> <p>Password: <admusr_password></p>
<p>60.</p> <input type="checkbox"/>	<p>SDS Server NOAM A:</p> <p>For Gen8: Delete eth14</p> <p>For Gen9: Delete eth08</p>	<p>For GEN8</p> <pre>\$ sudo netAdm delete --device=eth14</pre> <p>Interface eth14 removed</p> <p>For GEN9</p> <pre>\$ sudo netAdm delete --device=eth08</pre> <p>Interface eth08 removed</p>
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>		

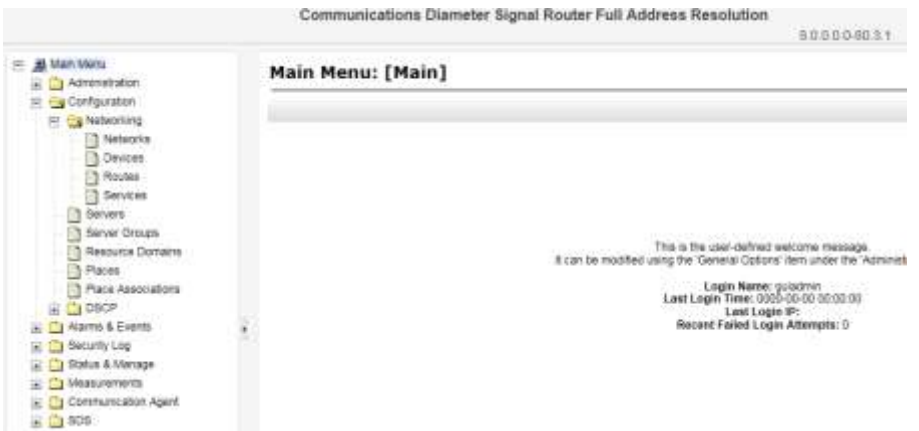
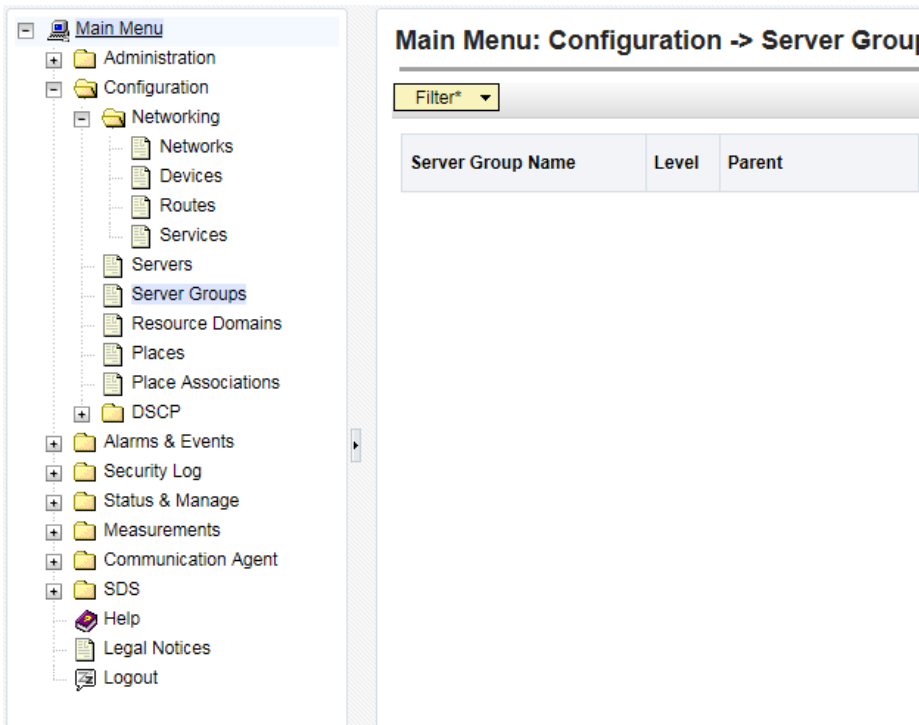
5.2 OAM Pairing (1st SDS NOAM site only)

The user should be aware that during the OAM Pairing procedure, various errors may be seen at different stages of the procedure. During the execution of a step, the user is directed to ignore errors related to values other than the ones referenced by that step.

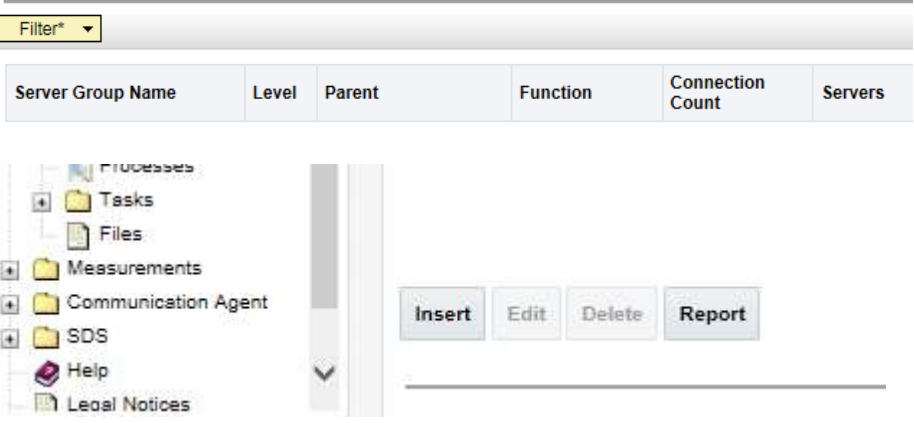
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

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

Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result						
<p>3.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 10px;"></div>	<p>SDS Server NOAM A:</p> <p>The user should be presented the SDS Main Menu as shown on the right.</p>	 <p>The screenshot shows the 'Main Menu: [Main]' interface. On the left is a tree view of the 'Main Menu' with categories like Administration, Configuration, Networking, Servers, etc. The 'SDS' category is expanded. On the right, there is a welcome message: 'This is the user-defined welcome message. It can be modified using the "General Options" item under the "Administ...'. Below this, it shows 'Login Name: goldmin', 'Last Login Time: 0000-00-00 00:00:00', 'Last Login IP:', and 'Recent Failed Login Attempts: 0'.</p>						
<p>4.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 10px;"></div>	<p>SDS Server NOAM A:</p> <p>Select...</p> <p>Main Menu → Configuration → Server Groups</p> <p>...as shown on the right.</p>	 <p>The screenshot shows the 'Main Menu: Configuration -> Server Group' interface. On the left, the 'Main Menu' tree view is shown with 'Server Groups' selected. On the right, there is a 'Filter*' dropdown menu and a table with the following structure:</p> <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Server Group Name	Level	Parent			
Server Group Name	Level	Parent						




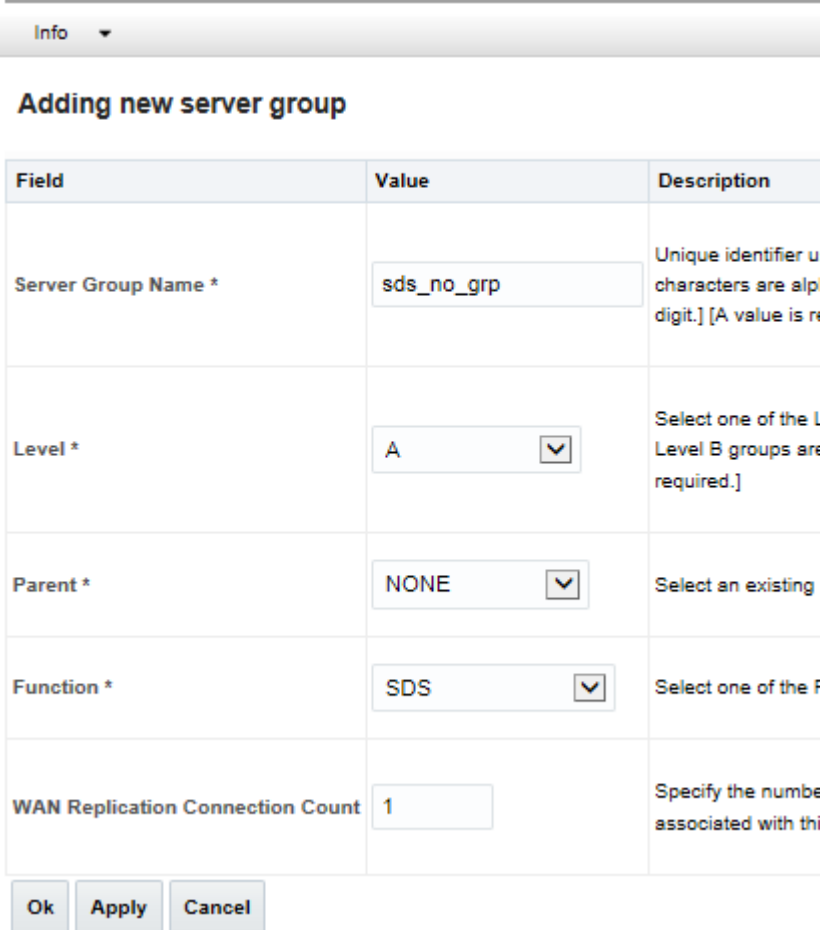
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result
<p>5.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 10px;"></div>	<p>SDS Server NOAM A:</p> <p>1) The user will be presented with the “Server Groups” configuration screen as shown on the right.</p> <p>2) Select the “Insert” dialogue button from the bottom left corner of the screen.</p>	<p>Main Menu: Configuration -> Server Groups</p>  <p>NOTE: The user may need to use the vertical scroll-bar in order to make the “Insert” dialogue button visible.</p>

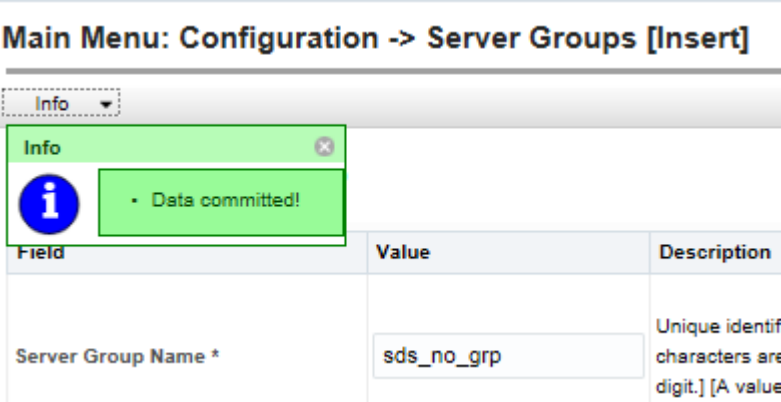

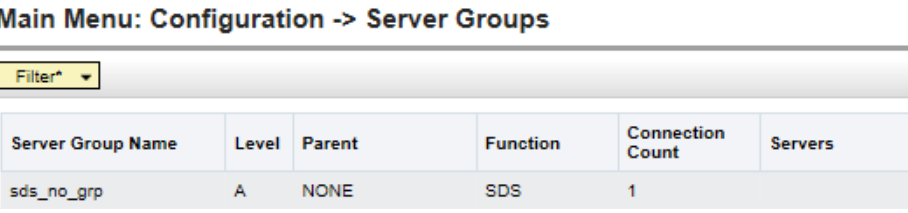
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result																		
<p>6.</p> <input type="checkbox"/>	<p>SDS Server NOAM A:</p> <p>The user will be presented with the “Server Groups [Insert]” screen as shown on the right.</p> <p>NOTE: Leave the “WAN Replication Connection Count” blank (it will default to 1).</p>	<p>Main Menu: Configuration -> Server Groups [Insert]</p> <hr/> <p>Adding new server group</p> <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name *</td> <td><input type="text"/></td> <td>Unique identifier used to characters are alphanumeric digit.] [A value is required.]</td> </tr> <tr> <td>Level *</td> <td>- Select Level - <input type="button" value="v"/></td> <td>Select one of the Levels Level B groups are optional required.]</td> </tr> <tr> <td>Parent *</td> <td>- Select Parent - <input type="button" value="v"/></td> <td>Select an existing Server</td> </tr> <tr> <td>Function *</td> <td>- Select Function - <input type="button" value="v"/></td> <td>Select one of the Functions</td> </tr> <tr> <td>WAN Replication Connection Count</td> <td>1</td> <td>Specify the number of T associated with this Server</td> </tr> </tbody> </table> <p>Ok Apply Cancel</p>	Field	Value	Description	Server Group Name *	<input type="text"/>	Unique identifier used to characters are alphanumeric digit.] [A value is required.]	Level *	- Select Level - <input type="button" value="v"/>	Select one of the Levels Level B groups are optional required.]	Parent *	- Select Parent - <input type="button" value="v"/>	Select an existing Server	Function *	- Select Function - <input type="button" value="v"/>	Select one of the Functions	WAN Replication Connection Count	1	Specify the number of T associated with this Server
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WAN Replication Connection Count	1	Specify the number of T associated with this Server																		
<p>7.</p> <input type="checkbox"/>	<p>SDS Server NOAM A:</p> <p>Input the Server Group Name.</p>	<table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name *</td> <td>sds_no_grp</td> <td>Unique identifier used characters are alphanumeric digit.] [A value is required.]</td> </tr> </tbody> </table>	Field	Value	Description	Server Group Name *	sds_no_grp	Unique identifier used characters are alphanumeric digit.] [A value is required.]												
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<p>8.</p> <input type="checkbox"/>	<p>SDS Server NOAM A:</p> <p>Select “A” on the “Level” pull-down menu.</p>	<table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name *</td> <td>sds_no_grp</td> <td>Unique identifier used characters are alphanumeric digit.] [A value is required.]</td> </tr> </tbody> </table>	Field	Value	Description	Server Group Name *	sds_no_grp	Unique identifier used characters are alphanumeric digit.] [A value is required.]												
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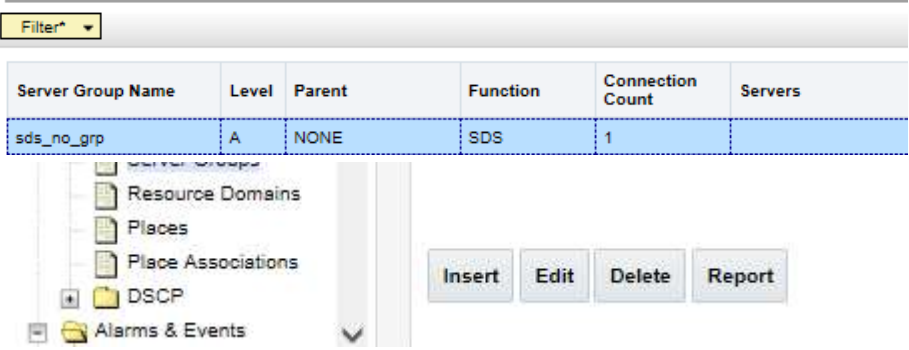
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result																		
<p>9.</p> <input type="checkbox"/>	<p>SDS Server NOAM A:</p> <p>Select “None” on the “Parent” pull-down menu.</p>	 <p>Parent *</p> <p>Select an existing Server Group or NONE [A value is require</p>																		
<p>10.</p> <input type="checkbox"/>	<p>SDS Server NOAM A:</p> <p>Select “SDS” on the “Function” pull-down menu.</p>	 <p>Function *</p> <p>Select one of the Functions supported by</p>																		
<p>11.</p> <input type="checkbox"/>	<p>SDS Server NOAM A:</p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Select the “Apply” dialogue button.</p>	<p>Main Menu: Configuration -> Server Groups [Insert]</p>  <p>Main Menu: Configuration -> Server Groups [Insert]</p>  <p>Adding new server group</p> <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name *</td> <td>sds_no_grp</td> <td>Unique identifier u characters are alpi digit.] [A value is r</td> </tr> <tr> <td>Level *</td> <td>A</td> <td>Select one of the l Level B groups are required.]</td> </tr> <tr> <td>Parent *</td> <td>NONE</td> <td>Select an existing</td> </tr> <tr> <td>Function *</td> <td>SDS</td> <td>Select one of the f</td> </tr> <tr> <td>WAN Replication Connection Count</td> <td>1</td> <td>Specify the numbe associated with thi</td> </tr> </tbody> </table> <p>Ok Apply Cancel</p>	Field	Value	Description	Server Group Name *	sds_no_grp	Unique identifier u characters are alpi digit.] [A value is r	Level *	A	Select one of the l Level B groups are required.]	Parent *	NONE	Select an existing	Function *	SDS	Select one of the f	WAN Replication Connection Count	1	Specify the numbe associated with thi
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Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result												
<p>12.</p> <p><input type="checkbox"/></p>	<p>SDS Server NOAM A:</p> <p>The user should be presented with a banner information message stating “Data committed”.</p>	 <p>Main Menu: Configuration -> Server Groups [Insert]</p> <p>Info</p> <p>Info</p> <p>• Data committed!</p> <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name *</td> <td>sds_no_grp</td> <td>Unique identif characters are digit.] [A value</td> </tr> </tbody> </table>	Field	Value	Description	Server Group Name *	sds_no_grp	Unique identif characters are digit.] [A value						
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<p>13.</p> <p><input type="checkbox"/></p>	<p>SDS Server NOAM A:</p> <p>Select...</p> <p>Main Menu → Configuration → Server Groups</p> <p>...as shown on the right.</p>	 <p>Main Menu: Configuration -> Server Groups</p> <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Connection Count</th> <th>Servers</th> </tr> </thead> <tbody> <tr> <td>sds_no_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>1</td> <td></td> </tr> </tbody> </table>	Server Group Name	Level	Parent	Function	Connection Count	Servers	sds_no_grp	A	NONE	SDS	1	
Server Group Name	Level	Parent	Function	Connection Count	Servers									
sds_no_grp	A	NONE	SDS	1										
<p>14.</p> <p><input type="checkbox"/></p>	<p>SDS Server NOAM A:</p> <p>The Server Group entry added in Steps 6 - 12 should now appear on the “Server Groups” configuration screen as shown on the right.</p>	 <p>Main Menu: Configuration -> Server Groups</p> <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Connection Count</th> <th>Servers</th> </tr> </thead> <tbody> <tr> <td>sds_no_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>1</td> <td></td> </tr> </tbody> </table>	Server Group Name	Level	Parent	Function	Connection Count	Servers	sds_no_grp	A	NONE	SDS	1	
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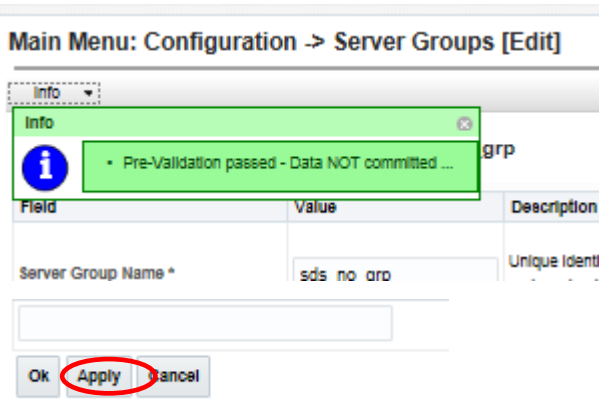
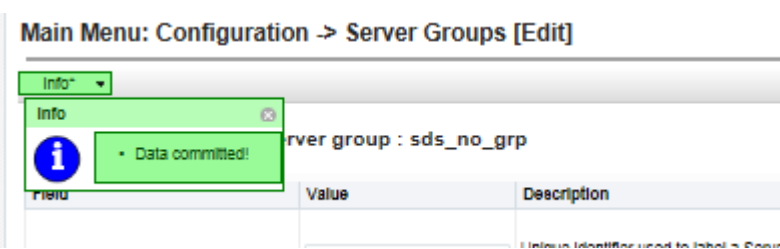
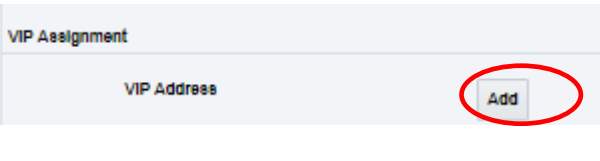
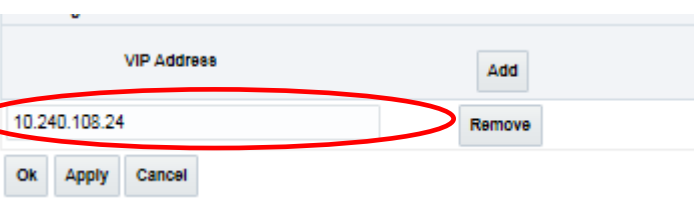
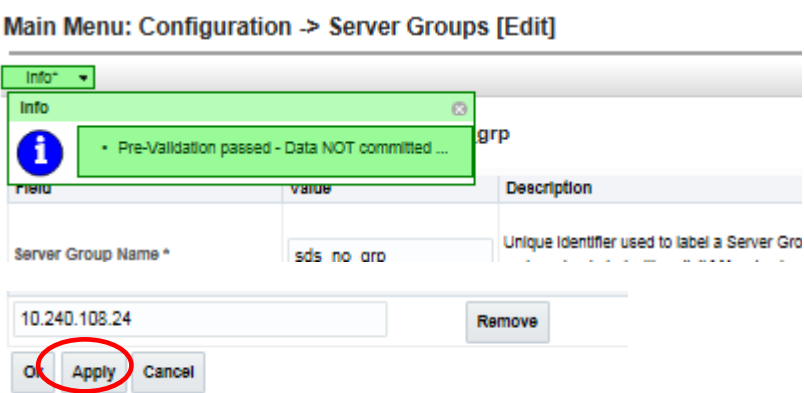
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result
<p>15.</p> <p><input type="checkbox"/></p>	<p>SDS Server NOAM A:</p> <p>1) Select the Server Group entry added in Steps 6 - 12. The line entry should now be highlighted</p> <p>2) Select the “Edit” dialogue button from the bottom left corner of the screen.</p>	<p>Main Menu: Configuration -> Server Groups</p>  <p>NOTE: The user may need to use the vertical scroll-bar in order to make the “Edit” dialogue button visible.</p>

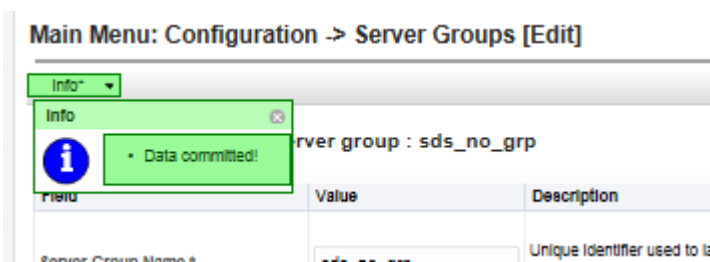
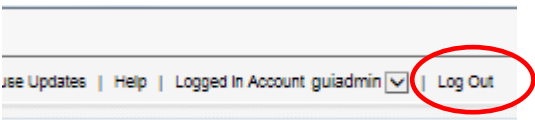
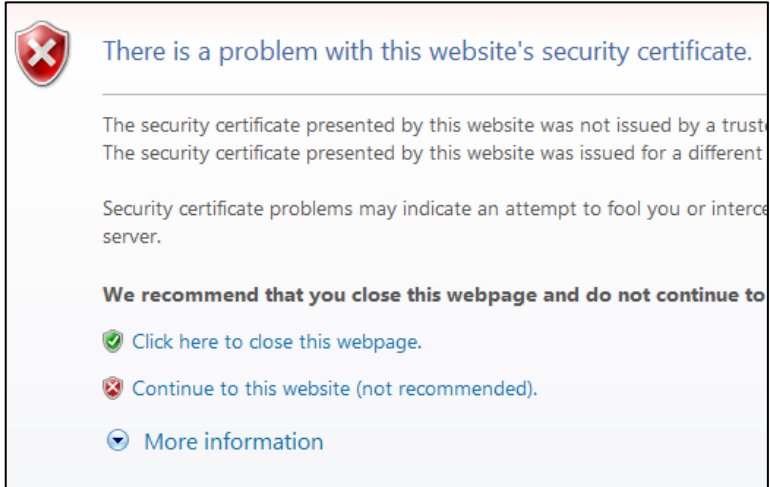
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result																											
<p>16.</p> <p><input type="checkbox"/></p>	<p>SDS Server NOAM A:</p> <p>The user will be presented with the “Server Groups [Edit]” screen as shown on the right.</p>	<table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name *</td> <td>sds_no_grp</td> <td>Unique Identifier used to label a Server Group. [Default and must not start with a digit.] [A value is required.]</td> </tr> <tr> <td>Level *</td> <td>A</td> <td>Select one of the Levels supported by the system [A v</td> </tr> <tr> <td>Parent *</td> <td>NONE</td> <td>Select an existing Server Group [A value is required.]</td> </tr> <tr> <td>Function *</td> <td>SDS</td> <td>Select one of the Functions supported by the system [</td> </tr> <tr> <td>WAN Replication Connection Count</td> <td>1</td> <td>Specify the number of TCP connections that will be us and 8.]</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Server</th> <th>\$G Inclusion</th> <th>Preferred HA Role</th> </tr> </thead> <tbody> <tr> <td>sds-no-a</td> <td><input type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Prefer server as spare</td> </tr> <tr> <td>sds-no-b</td> <td><input type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Prefer server as spare</td> </tr> </tbody> </table> <p>SDS_NE <input type="checkbox"/> Prefer Network Element as spare</p> <p>VIP Assignment</p> <p>VIP Address <input type="text"/> <input type="button" value="Add"/></p> <p><input type="button" value="Ok"/> <input type="button" value="Apply"/> <input type="button" value="Cancel"/></p>	Field	Value	Description	Server Group Name *	sds_no_grp	Unique Identifier used to label a Server Group. [Default and must not start with a digit.] [A value is required.]	Level *	A	Select one of the Levels supported by the system [A v	Parent *	NONE	Select an existing Server Group [A value is required.]	Function *	SDS	Select one of the Functions supported by the system [WAN Replication Connection Count	1	Specify the number of TCP connections that will be us and 8.]	Server	\$G Inclusion	Preferred HA Role	sds-no-a	<input type="checkbox"/> Include in SG	<input type="checkbox"/> Prefer server as spare	sds-no-b	<input type="checkbox"/> Include in SG	<input type="checkbox"/> Prefer server as spare
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<p>17.</p> <p><input type="checkbox"/></p>	<p>SDS Server NOAM A:</p> <p>Select the “A” server and the “B” server from the list of “Servers” by clicking the check box next to their names.</p>	<table border="1"> <thead> <tr> <th>Server</th> <th>\$G Inclusion</th> <th>Preferred HA Role</th> </tr> </thead> <tbody> <tr> <td>sds-no-a</td> <td><input type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Prefer server as spare</td> </tr> <tr> <td>sds-no-b</td> <td><input type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Prefer server as spare</td> </tr> </tbody> </table>	Server	\$G Inclusion	Preferred HA Role	sds-no-a	<input type="checkbox"/> Include in SG	<input type="checkbox"/> Prefer server as spare	sds-no-b	<input type="checkbox"/> Include in SG	<input type="checkbox"/> Prefer server as spare																		
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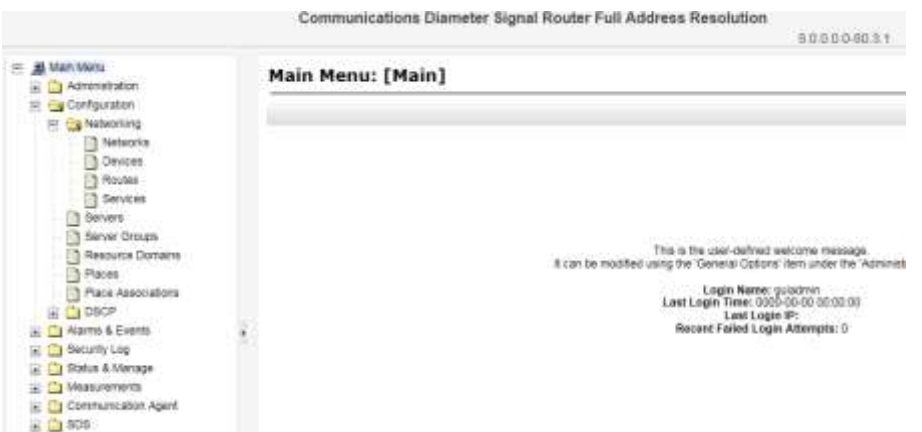

Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result						
<p>18.</p> <p><input type="checkbox"/></p>	<p>SDS Server NOAM A:</p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Select the “Apply” dialogue button.</p>	 <p>Main Menu: Configuration -> Server Groups [Edit]</p> <p>Info</p> <p>Info</p> <p>Pre-Validation passed - Data NOT committed ...</p> <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name *</td> <td>sds no orp</td> <td>Unique Identifier used to label a Server Group</td> </tr> </tbody> </table> <p>Ok Apply Cancel</p>	Field	Value	Description	Server Group Name *	sds no orp	Unique Identifier used to label a Server Group
Field	Value	Description						
Server Group Name *	sds no orp	Unique Identifier used to label a Server Group						
<p>19.</p> <p><input type="checkbox"/></p>	<p>SDS Server NOAM A:</p> <p>The user should be presented with a banner information message stating “Data committed”.</p>	 <p>Main Menu: Configuration -> Server Groups [Edit]</p> <p>Info</p> <p>Info</p> <p>Data committed!</p> <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name *</td> <td>sds_no_orp</td> <td>Unique Identifier used to label a Server Group</td> </tr> </tbody> </table>	Field	Value	Description	Server Group Name *	sds_no_orp	Unique Identifier used to label a Server Group
Field	Value	Description						
Server Group Name *	sds_no_orp	Unique Identifier used to label a Server Group						
<p>20.</p> <p><input type="checkbox"/></p>	<p>SDS Server NOAM A:</p> <p>Click the “Add” dialogue button for the VIP Address.</p>	 <p>VIP Assignment</p> <p>VIP Address</p> <p>Add</p>						
<p>21.</p> <p><input type="checkbox"/></p>	<p>SDS Server NOAM A:</p> <p>Input the VIP Address</p>	 <p>VIP Address</p> <p>Add</p> <p>10.240.108.24</p> <p>Remove</p> <p>Ok Apply Cancel</p>						
<p>22.</p> <p><input type="checkbox"/></p>	<p>SDS Server NOAM A:</p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Select the “Apply” dialogue button.</p>	 <p>Main Menu: Configuration -> Server Groups [Edit]</p> <p>Info</p> <p>Info</p> <p>Pre-Validation passed - Data NOT committed ...</p> <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name *</td> <td>sds no orp</td> <td>Unique Identifier used to label a Server Group</td> </tr> </tbody> </table> <p>10.240.108.24</p> <p>Remove</p> <p>Ok Apply Cancel</p>	Field	Value	Description	Server Group Name *	sds no orp	Unique Identifier used to label a Server Group
Field	Value	Description						
Server Group Name *	sds no orp	Unique Identifier used to label a Server Group						

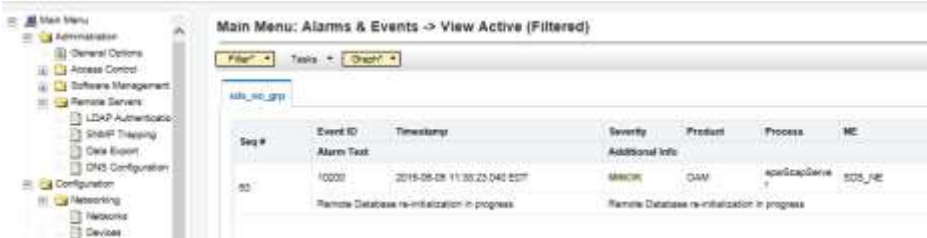


Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result						
<p>23.</p> <input type="checkbox"/>	<p>SDS Server NOAM A:</p> <p>The user should be presented with a banner information message stating “Data committed”.</p>	 <p>Main Menu: Configuration -> Server Groups [Edit]</p> <p>Info</p> <p>Info</p> <p>Data committed!</p> <p>server group : sds_no_grp</p> <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>Unique Identifier used to id</td> </tr> </tbody> </table>	Field	Value	Description			Unique Identifier used to id
Field	Value	Description						
		Unique Identifier used to id						
<p>24.</p> <input type="checkbox"/>	<p>SDS Server NOAM A:</p> <p>Click the “Logout” link on the OAM A server GUI.</p>	 <p>See Updates Help Logged In Account: guiadmin Log Out</p>						
<p>25.</p> <input type="checkbox"/>	<p>IMPORTANT:</p> <p>Wait at least 5 minutes before proceeding on to the next Step.</p>	<ul style="list-style-type: none"> Now that the server(s) have been paired within a Server Group they must establish a master/slave relationship for High Availability (HA). It may take several minutes for this process to be completed. Allow a minimum of 5 minutes before continuing to the next Step. 						
<p>26.</p> <input type="checkbox"/>	<p>SDS VIP:</p> <p>Launch an approved web browser and connect to the XMI Virtual IP Address (VIP) assigned in STEP 21 to the SDS Server Group</p>	 <p>There is a problem with this website's security certificate.</p> <p>The security certificate presented by this website was not issued by a trust... The security certificate presented by this website was issued for a different...</p> <p>Security certificate problems may indicate an attempt to fool you or interce... server.</p> <p>We recommend that you close this webpage and do not continue to</p> <ul style="list-style-type: none"> Click here to close this webpage. Continue to this website (not recommended). More information 						

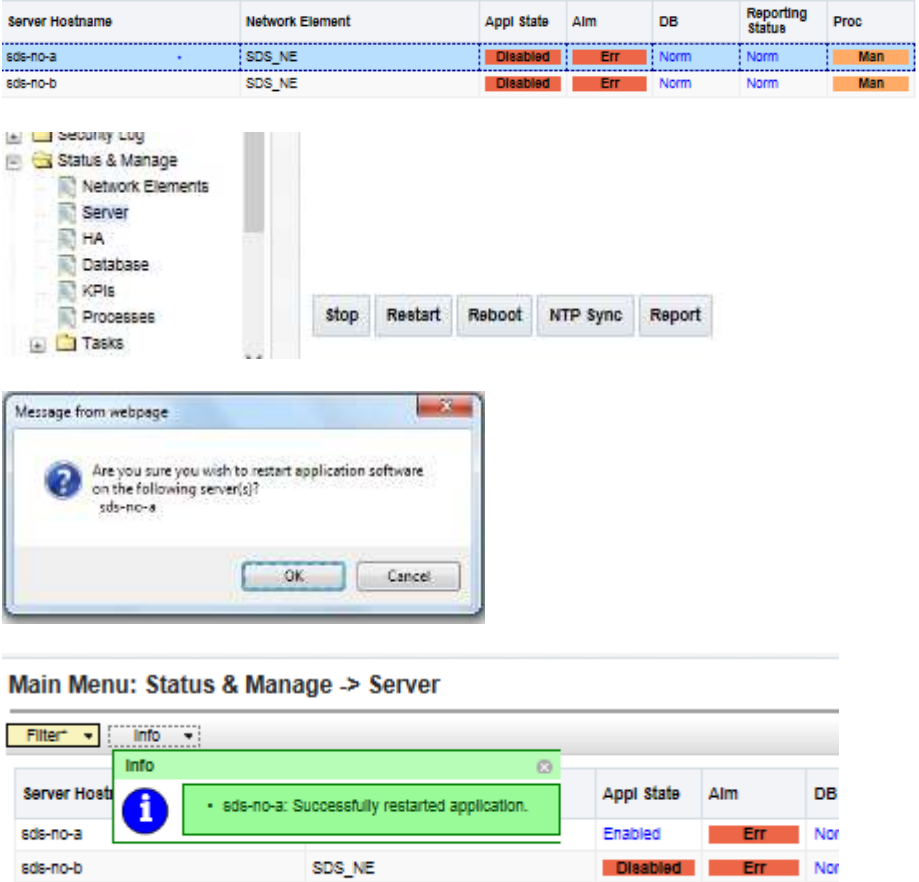

Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result
<p>27.</p> <p><input type="checkbox"/></p>	<p>SDS VIP:</p> <p>The user should be presented the login screen shown on the right.</p> <p>Login to the GUI using the default user and password.</p>	
<p>28.</p>	<p>SDS VIP:</p> <p>The user should be presented the SDS Main Menu as shown on the right.</p>	
<p>29.</p>	<p>SDS VIP:</p> <p>Select...</p> <p>Main Menu → Alarms & Events → View Active</p> <p>...as shown on the right.</p>	


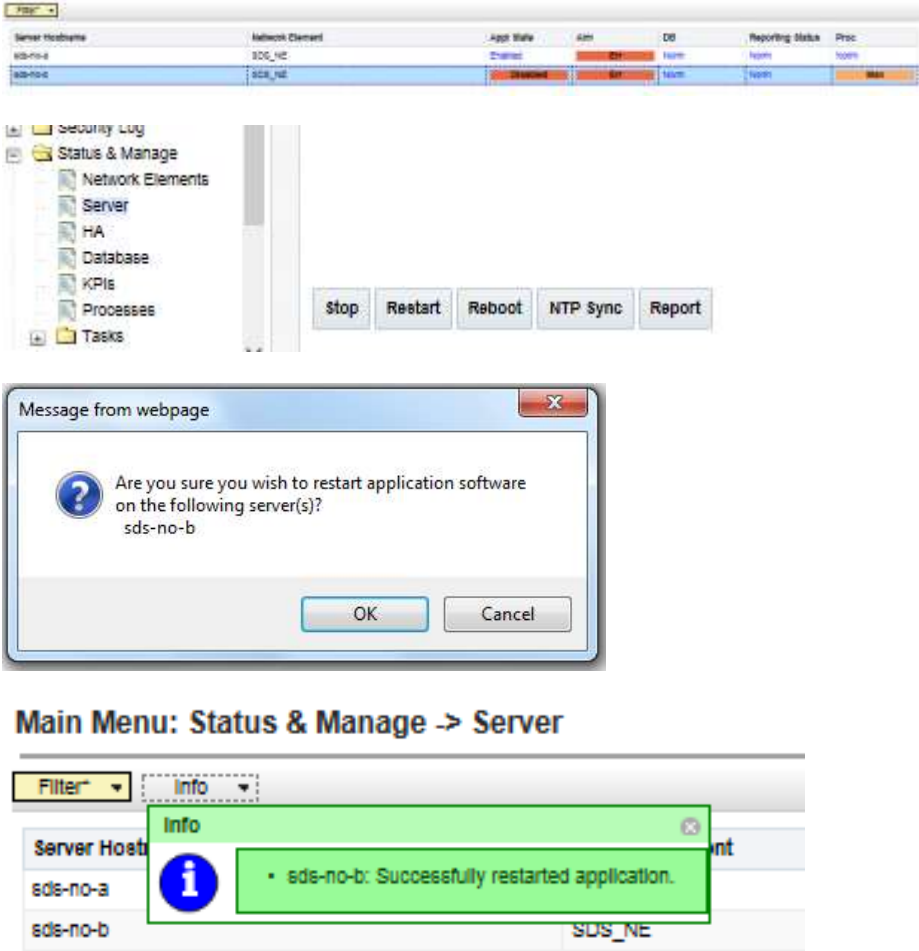
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result																					
<p>30.</p> <p><input type="checkbox"/></p>	<p>SDS VIP:</p> <p>Verify whether or not Event ID 10200 (<i>Remote Database re-initialization in progress</i>) is present.</p>																						
<div style="display: flex; align-items: center;">  <p>IF EVENT ID 10200 (<i>Remote Database re-initialization in progress</i>) IS PRESENT, DO NOT PROCEED TO THE NEXT STEP UNTIL THE ALARM CLEAR IS RECEIVED.</p> </div>																							
<p>31.</p> <p><input type="checkbox"/></p>	<p>SDS VIP:</p> <p>Select...</p> <p>Main Menu → Status & Manage → Server</p> <p>...as shown on the right.</p>																						
<p>32.</p> <p><input type="checkbox"/></p>	<p>SDS VIP:</p> <p>1) The “A” and “B” SDS servers should now appear in the right panel.</p> <p>2) Verify that the “DB” status shows “Norm” and the “Proc” status shows “Man” for both servers before proceeding to the next Step.</p>	<p>Main Menu: Status & Manage -> Server</p> <p>Sun Jun 05 10:36:36 2016 EDT</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>App State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>sdv-no-a</td> <td>SDS_NE</td> <td>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>sdv-no-b</td> <td>SDS_NE</td> <td>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> </tbody> </table>	Server Hostname	Network Element	App State	Alm	DB	Reporting Status	Proc	sdv-no-a	SDS_NE	Disabled	Err	Norm	Norm	Man	sdv-no-b	SDS_NE	Disabled	Err	Norm	Norm	Man
Server Hostname	Network Element	App State	Alm	DB	Reporting Status	Proc																	
sdv-no-a	SDS_NE	Disabled	Err	Norm	Norm	Man																	
sdv-no-b	SDS_NE	Disabled	Err	Norm	Norm	Man																	

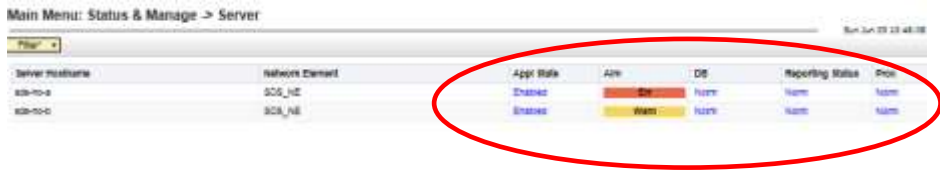

Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result																																				
<p>33.</p> <p><input type="checkbox"/></p>	<p>SDS VIP:</p> <p>1) Using the mouse, select SDS Server NOAM A. The line entry should now be highlighted.</p> <p>2) Select the “Restart” dialogue button from the bottom left corner of the screen.</p> <p>3) Click the “OK” button on the confirmation dialogue box.</p> <p>4) The user should be presented with a confirmation message (in the banner area) for SDS Server NOAM A stating: “Successfully restarted application”.</p>	 <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>sds-no-a</td> <td>SDS_NE</td> <td>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>sds-no-b</td> <td>SDS_NE</td> <td>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> </tr> </thead> <tbody> <tr> <td>sds-no-a</td> <td></td> <td>Enabled</td> <td>Err</td> <td>Nor</td> </tr> <tr> <td>sds-no-b</td> <td>SDS_NE</td> <td>Disabled</td> <td>Err</td> <td>Nor</td> </tr> </tbody> </table>	Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc	sds-no-a	SDS_NE	Disabled	Err	Norm	Norm	Man	sds-no-b	SDS_NE	Disabled	Err	Norm	Norm	Man	Server Hostname	Network Element	Appl State	Alm	DB	sds-no-a		Enabled	Err	Nor	sds-no-b	SDS_NE	Disabled	Err	Nor
Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc																																
sds-no-a	SDS_NE	Disabled	Err	Norm	Norm	Man																																
sds-no-b	SDS_NE	Disabled	Err	Norm	Norm	Man																																
Server Hostname	Network Element	Appl State	Alm	DB																																		
sds-no-a		Enabled	Err	Nor																																		
sds-no-b	SDS_NE	Disabled	Err	Nor																																		
<p>34.</p> <p><input type="checkbox"/></p>	<p>SDS VIP:</p> <p>Select...</p> <p>Main Menu → Status & Manage → Server</p> <p>...as shown on the right.</p>																																					

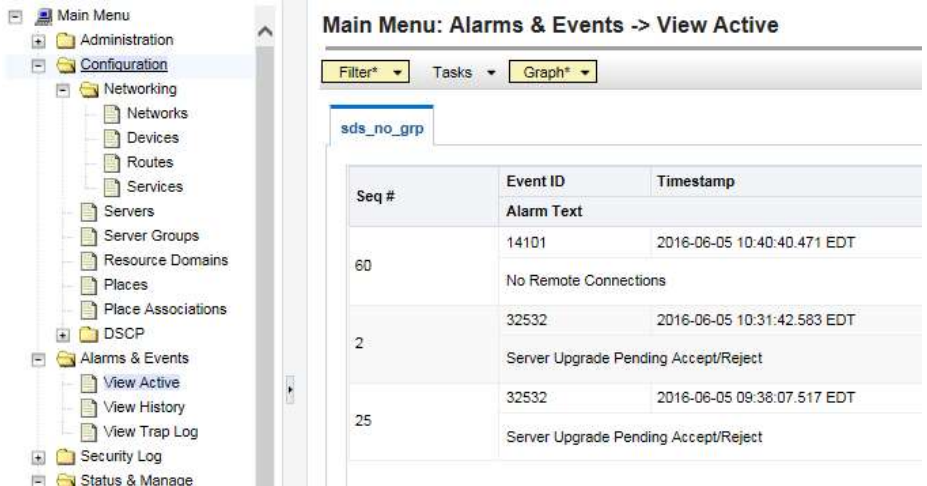

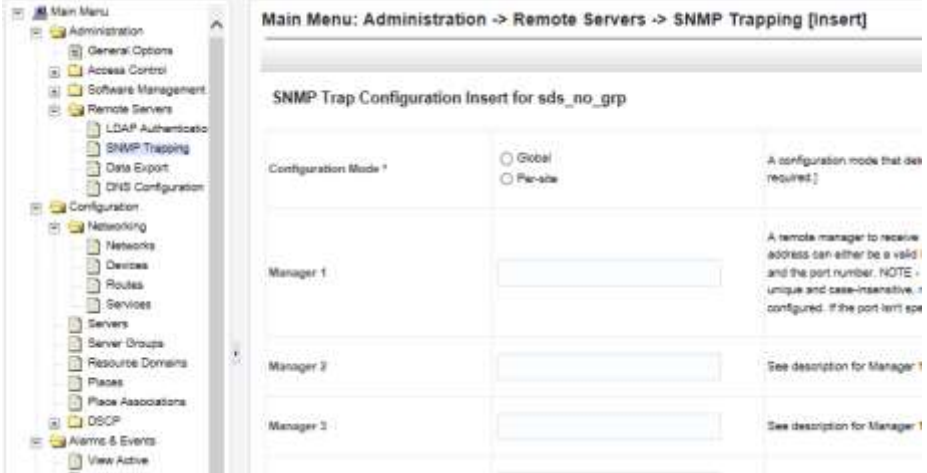
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result
<p>35.</p> <p><input type="checkbox"/></p>	<p>SDS VIP:</p> <p>Verify that the “Appl State” now shows “Enabled” and that the “DB, Reporting Status & Proc” status columns all show “Norm” for SDS Server NOAM A before proceeding to the next Step.</p>	
<p>36.</p> <p><input type="checkbox"/></p>	<p>SDS VIP:</p> <ol style="list-style-type: none"> Using the mouse, select SDS Server B. The line entry should now be highlighted. Select the “Restart” dialogue button from the bottom left corner of the screen. Click the “OK” button on the confirmation dialogue box. The user should be presented with a confirmation message (in the banner area) for SDS Server B stating: “Successfully restarted application”. <p>NOTE: The user may need to use the vertical scroll-bar in order to make the “Restart” dialogue button visible.</p>	

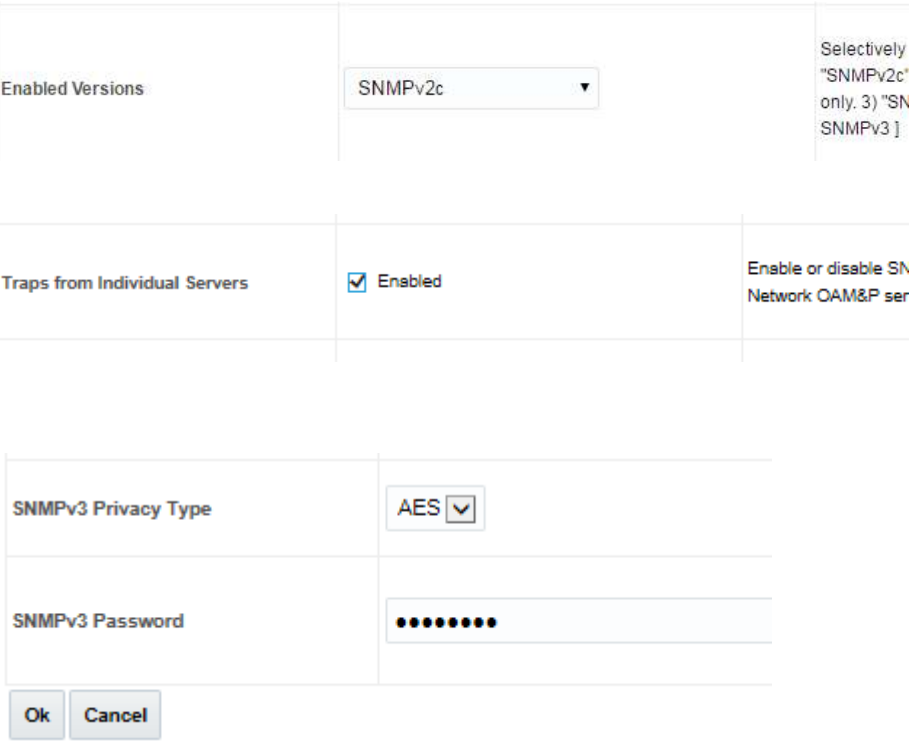
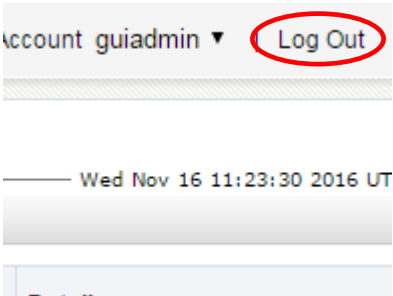
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result																					
<p>37.</p> <input type="checkbox"/>	<p>SDS VIP:</p> <p>Verify that the “Appl State” now shows “Enabled” and that the “DB, Reporting Status & Proc” status columns all show “Norm” for SDS Server NOAM A and SDS Server NOAM B before proceeding to the next Step.</p>	 <p>Main Menu: Status & Manage -> Server</p> <table border="1"> <thead> <tr> <th>Server Instance</th> <th>Network Element</th> <th>Appl State</th> <th>APPL</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>SDS-NO-A</td> <td>SDS_NE</td> <td>Enabled</td> <td>Star</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>SDS-NO-B</td> <td>SDS_NE</td> <td>Enabled</td> <td>Star</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table>	Server Instance	Network Element	Appl State	APPL	DB	Reporting Status	Proc	SDS-NO-A	SDS_NE	Enabled	Star	Norm	Norm	Norm	SDS-NO-B	SDS_NE	Enabled	Star	Norm	Norm	Norm
Server Instance	Network Element	Appl State	APPL	DB	Reporting Status	Proc																	
SDS-NO-A	SDS_NE	Enabled	Star	Norm	Norm	Norm																	
SDS-NO-B	SDS_NE	Enabled	Star	Norm	Norm	Norm																	
<p>38.</p> <input type="checkbox"/>	<p>IMPORTANT:</p> <p>Wait at least 5 minutes before proceeding on to the next Step.</p>	<ul style="list-style-type: none"> Now that the server(s) have been restarted they must establish a master/slave relationship for High Availability (HA). It may take several minutes for this process to be completed. Allow a minimum of 5 minutes before continuing to the next Step. 																					
<p>39.</p> <input type="checkbox"/>	<p>SDS VIP:</p> <p>If there is a context switch, you may be required to login again.</p> <p>Login to the GUI using the default user and password.</p>	 <p>ORACLE</p> <p>Oracle System Login Tue May 31 14:34:34 2016 EDT</p> <div style="border: 1px solid gray; padding: 10px; width: fit-content; margin: 0 auto;"> <p style="text-align: center;">Log In</p> <p style="text-align: center;">Enter your username and password to log in.</p> <p>Username: <input type="text"/></p> <p>Password: <input type="password"/></p> <p style="text-align: center;"><input type="checkbox"/> Change password</p> <p style="text-align: center;"><input type="button" value="Log In"/></p> </div> <p style="text-align: center;">Welcome to the Oracle System Login.</p> <p style="text-align: center;">This application is designed to work with most modern HTML5 compliant browsers and uses both JavaScript and cookies. Please refer to the Oracle Software Web Browser Support Policy for details.</p> <p style="text-align: center;">Unauthorized access is prohibited.</p> <p style="text-align: center; font-size: small;">Oracle and Java are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.</p> <p style="text-align: center; font-size: x-small;">Copyright © 2010, 2016, Oracle and/or its affiliates. All rights reserved.</p>																					

Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result																								
<p>40.</p> <p><input type="checkbox"/></p>	<p>SDS VIP:</p> <p>Select...</p> <p>Main Menu → Alarms & Events → View Active</p> <p>...as shown on the right.</p>	 <table border="1"> <thead> <tr> <th>Seq #</th> <th>Event ID</th> <th>Timestamp</th> </tr> </thead> <tbody> <tr> <td>60</td> <td>14101</td> <td>2016-06-05 10:40:40.471 EDT</td> </tr> <tr> <td></td> <td colspan="2">No Remote Connections</td> </tr> <tr> <td>2</td> <td>32532</td> <td>2016-06-05 10:31:42.583 EDT</td> </tr> <tr> <td></td> <td colspan="2">Server Upgrade Pending Accept/Reject</td> </tr> <tr> <td>25</td> <td>32532</td> <td>2016-06-05 09:38:07.517 EDT</td> </tr> <tr> <td></td> <td colspan="2">Server Upgrade Pending Accept/Reject</td> </tr> </tbody> </table>	Seq #	Event ID	Timestamp	60	14101	2016-06-05 10:40:40.471 EDT		No Remote Connections		2	32532	2016-06-05 10:31:42.583 EDT		Server Upgrade Pending Accept/Reject		25	32532	2016-06-05 09:38:07.517 EDT		Server Upgrade Pending Accept/Reject				
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	Server Upgrade Pending Accept/Reject																									
<p>41.</p> <p><input type="checkbox"/></p>	<p>SDS VIP:</p> <p>Verify that Event ID 14101 (“No remote provisioning clients are connected”) is the only alarm present on the system at this time.</p>	 <table border="1"> <thead> <tr> <th>Seq #</th> <th>Event ID</th> <th>Timestamp</th> <th>Severity</th> <th>Product</th> <th>Process</th> <th>NE</th> <th>Server</th> </tr> </thead> <tbody> <tr> <td>60</td> <td>14101</td> <td>2016-06-05 10:40:40.471 EDT</td> <td>MAJOR</td> <td>SDS</td> <td>sds</td> <td>SDS_NE</td> <td>sds-no-a</td> </tr> <tr> <td></td> <td colspan="2">No Remote Connections</td> <td colspan="5">GN_INFORM for information only [Listener: C:453] ** No XML client connect...</td> </tr> </tbody> </table>	Seq #	Event ID	Timestamp	Severity	Product	Process	NE	Server	60	14101	2016-06-05 10:40:40.471 EDT	MAJOR	SDS	sds	SDS_NE	sds-no-a		No Remote Connections		GN_INFORM for information only [Listener: C:453] ** No XML client connect...				
Seq #	Event ID	Timestamp	Severity	Product	Process	NE	Server																			
60	14101	2016-06-05 10:40:40.471 EDT	MAJOR	SDS	sds	SDS_NE	sds-no-a																			
	No Remote Connections		GN_INFORM for information only [Listener: C:453] ** No XML client connect...																							
<p>42.</p> <p><input type="checkbox"/></p>	<p>SDS VIP:</p> <p>Select...</p> <p>Main Menu → Administration → Remote Servers → SNMP Trapping</p> <p>...as shown on the right.</p>	 <p>SNMP Trap Configuration Insert for sds_no_grp</p> <p>Configuration Mode * <input type="radio"/> Global <input type="radio"/> Per-site</p> <p>Manager 1: <input type="text"/> <small>A remote manager to receive address (can either be a valid IP and the port number. NOTE: unique and case-insensitive, if the port isn't specified, it defaults to 162)</small></p> <p>Manager 2: <input type="text"/> <small>See description for Manager 1</small></p> <p>Manager 3: <input type="text"/> <small>See description for Manager 1</small></p>																								

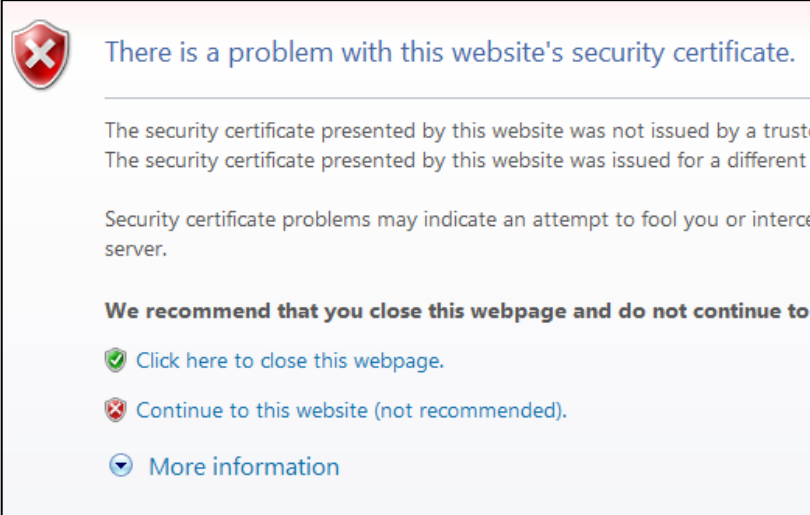

Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result
<p>43.</p> <p><input type="checkbox"/></p>	<p>SDS VIP:</p> <p>1) Enable Version field changed to SNMPv2c before you select OK</p> <p>2) Using the cursor, place a “check” in the check box for “Traps from Individual Servers”.</p> <p>3) Click the “Ok” dialogue button located at the bottom of the right panel.</p>	 <p>Enabled Versions: SNMPv2c</p> <p>Traps from Individual Servers: <input checked="" type="checkbox"/> Enabled</p> <p>SNMPv3 Privacy Type: AES</p> <p>SNMPv3 Password: [Masked]</p> <p>Buttons: Ok, Cancel</p> <p>Text on right: Selectively "SNMPv2c" only. 3) "SNMPv3]</p> <p>Text on right: Enable or disable SN Network OAM&P ser</p>
<p>44.</p> <p><input type="checkbox"/></p>	<p>SDS VIP:</p> <p>Click the “Logout” link on the server GUI.</p>	 <p>account_guiadmin ▾ Log Out</p> <p>Wed Nov 16 11:23:30 2016 UT</p>
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>		

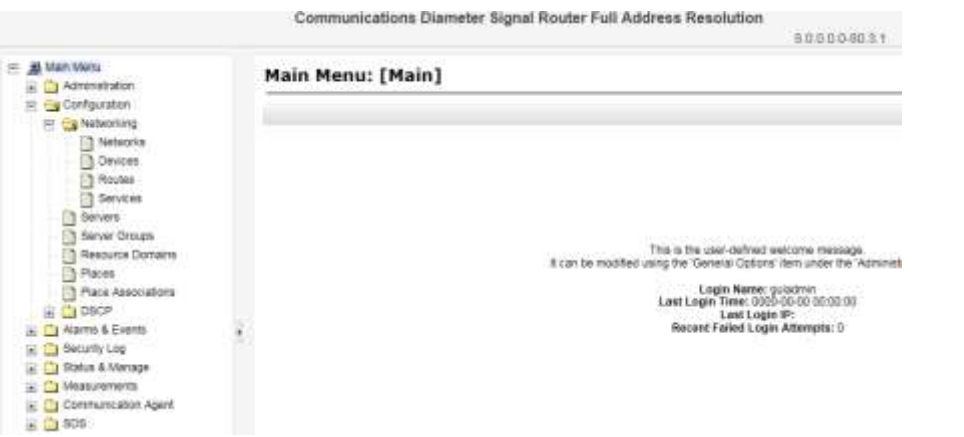


5.3 Query Server Installation (All SDS NOAM sites)

The user should be aware that during the Query Server installation procedure, various errors may be seen at different stages of the procedure. During the execution of a step, the user is directed to ignore errors related to values other than the ones referenced by that step.

Procedure 4: Configuring the Query Server (All SDS NOAM sites)

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

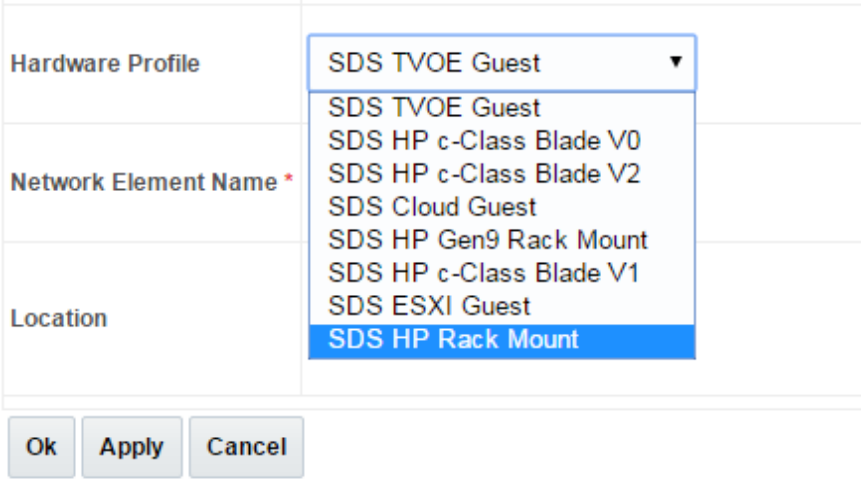
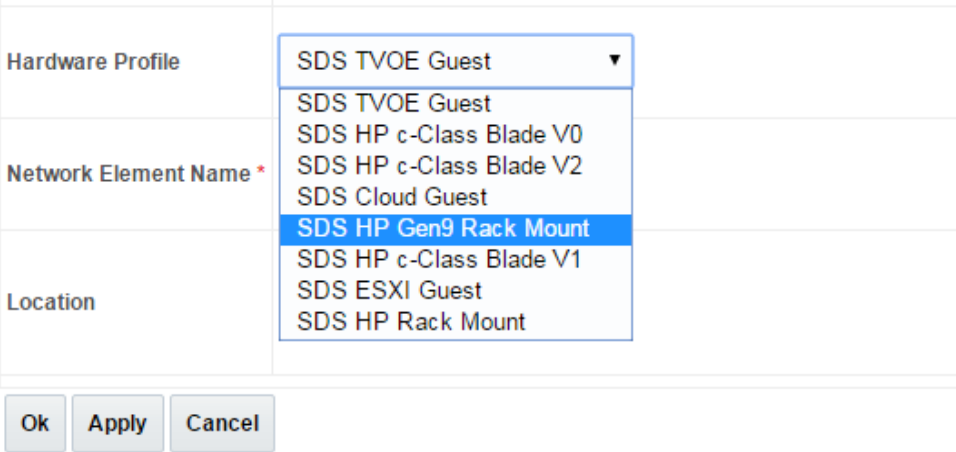
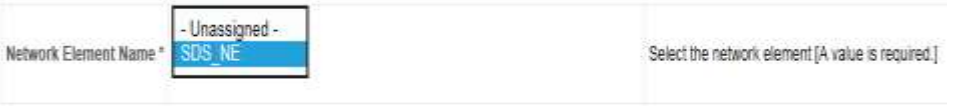
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result
<p>3.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>The user should be presented the SDS Main Menu as shown on the right.</p>	
<p>4.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu → Configuration → Servers</p> <p>...as shown on the right.</p>	
<p>5.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Select the “Insert” dialogue button.</p>	

Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result														
<p>6.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>The user is now presented with the “Adding a new server” configuration screen.</p>	<p>Adding a new server</p> <table border="1"> <thead> <tr> <th>Attribute</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>Hostname *</td> <td><input type="text"/></td> </tr> <tr> <td>Role *</td> <td>- Select Role - <input type="button" value="v"/></td> </tr> <tr> <td>System ID</td> <td><input type="text"/></td> </tr> <tr> <td>Hardware Profile</td> <td>SDS HP Rack Mount <input type="button" value="v"/></td> </tr> <tr> <td>Network Element Name *</td> <td>- Unassigned - <input type="button" value="v"/></td> </tr> <tr> <td>Location</td> <td><input type="text"/></td> </tr> </tbody> </table> <p><input type="button" value="Ok"/> <input type="button" value="Apply"/> <input type="button" value="Cancel"/></p>	Attribute	Value	Hostname *	<input type="text"/>	Role *	- Select Role - <input type="button" value="v"/>	System ID	<input type="text"/>	Hardware Profile	SDS HP Rack Mount <input type="button" value="v"/>	Network Element Name *	- Unassigned - <input type="button" value="v"/>	Location	<input type="text"/>
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Location	<input type="text"/>															
<p>7.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Input the assigned “hostname” for the Query Server.</p>	<p>Adding a new server</p> <table border="1"> <thead> <tr> <th>Attribute</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Hostname *</td> <td>qs-sds-1</td> <td>Unique name for the server. [Default = n/a. Range: character string. Valid characters are alphanumeric minus sign. Must start with an alphanumeric and alphanumeric.] [A value is required.]</td> </tr> </tbody> </table>	Attribute	Value	Description	Hostname *	qs-sds-1	Unique name for the server. [Default = n/a. Range: character string. Valid characters are alphanumeric minus sign. Must start with an alphanumeric and alphanumeric.] [A value is required.]								
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<p>8.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Select “QUERY SERVER” for the server “Role” from the pull-down menu.</p>	<table border="1"> <tbody> <tr> <td>Role *</td> <td> <input type="button" value="v"/> <ul style="list-style-type: none"> NETWORK OAM&P SYSTEM OAM MP QUERY SERVER </td> <td>Select the function of the server [A value is required.]</td> </tr> <tr> <td>System ID</td> <td><input type="text"/></td> <td>System ID for the NOAMP or SOAM server. [Default = n/a. Range = A 64-character string. Valid value is any text string.]</td> </tr> </tbody> </table>	Role *	<input type="button" value="v"/> <ul style="list-style-type: none"> NETWORK OAM&P SYSTEM OAM MP QUERY SERVER 	Select the function of the server [A value is required.]	System ID	<input type="text"/>	System ID for the NOAMP or SOAM server. [Default = n/a. Range = A 64-character string. Valid value is any text string.]								
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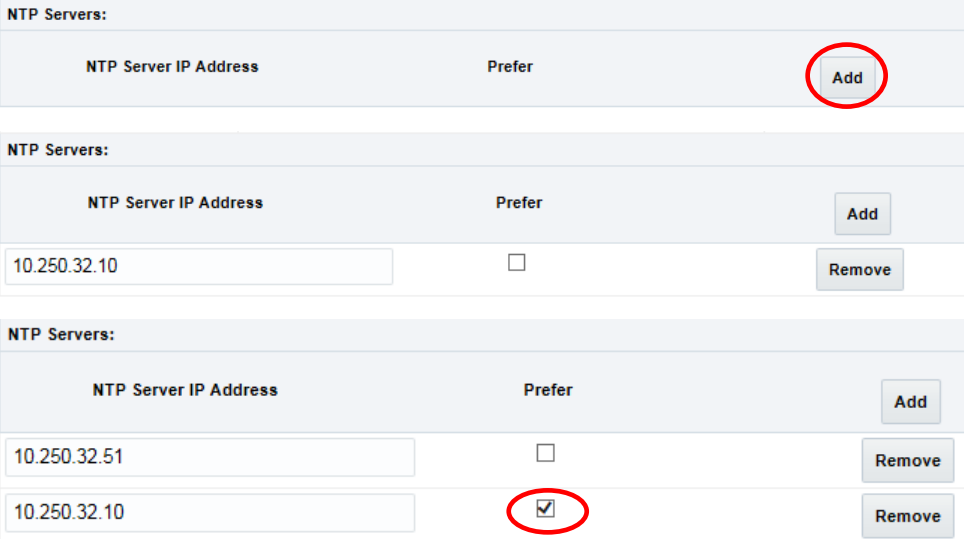
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result
<p>9.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>For Gen8 Server Select “SDS HP Rack Mount” for the Hardware Profile for the SDS from the pull-down menu.</p> <p>For Gen9 Server: Select “SDS HP Gen9 Rack Mount” for the Hardware Profile for the SDS from the pull-down menu.</p>	<p>For Gen8 select “SDS HP Rack Mount” from the Hardware Profile pull-down menu.</p>  <p>For Gen9 Server, Select “SDS HP Gen9 Rack Mount” from the Hardware Profile pull-down menu.</p> 
<p>10.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select the Network Element Name of the SDS site where the Query Server is physically located.</p>	

Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result																															
<p>11.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Enter the site location.</p>	<p>Location: <input type="text" value="Bangalore"/> <small>Location description [Default = "" Range = A 15-character string Valid value is any text string]</small></p> <p>NOTE: Location is an optional field.</p>																															
<p>12.</p> <input type="checkbox"/>	<p>SDS Server NOAM A:</p> <p>1) Enter the MgmtVLAN IP address for the Query Server.</p> <p>2) Set the MgmtVLAN Interface to “bond0” and “check” the VLAN checkbox.</p> <p>3) Enter the IMI IP address for the Query Server.</p> <p>4) Set the IMI Interface to “bond0” and “check” the VLAN checkbox.</p>	<p>OAM interfaces [At least one interface is required]:</p> <table border="1"> <thead> <tr> <th>Network</th> <th>IP Address</th> <th>Interface</th> </tr> </thead> <tbody> <tr> <td>MGMT_VLAN (191.168.1.0/22)</td> <td>191.240.1.11</td> <td>bond0 <input type="checkbox"/> VLAN (2)</td> </tr> <tr> <td>INTERNALXMI (10.240.20.0/22)</td> <td>10.240.20.2</td> <td>bond1 <input type="checkbox"/> VLAN (3)</td> </tr> <tr> <td>INTERNALIMI (192.168.2.0/24)</td> <td>192.168.2.100</td> <td>bond0 <input type="checkbox"/> VLAN (4)</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Query Server</th> <th>Network</th> <th>IP Address</th> <th>Interface</th> <th>VLAN Checkbox</th> </tr> </thead> <tbody> <tr> <td rowspan="2">SDS-QS (Primary NE)</td> <td>MgmtVLAN</td> <td>169.254.1.13</td> <td rowspan="2">bond0</td> <td rowspan="2"><input checked="" type="checkbox"/></td> </tr> <tr> <td>IMI</td> <td>169.254.100.13</td> </tr> <tr> <td rowspan="2">SDS-QS (DR NE)</td> <td>MgmtVLAN</td> <td>169.254.1.16</td> <td rowspan="2">bond0</td> <td rowspan="2"><input checked="" type="checkbox"/></td> </tr> <tr> <td>IMI</td> <td>169.254.100.16</td> </tr> </tbody> </table> <p>NOTE_1: These IP addresses are based on the info in the NAPD and the Network Element Config file.</p> <p>NOTE_2: The MgmtVLAN should only be present when 4948E-F AggregationSwitches are deployed with SDS NOAM / Query Server RMS. If the MgmtVLAN is not present, the IMI network values shown above still apply.</p>	Network	IP Address	Interface	MGMT_VLAN (191.168.1.0/22)	191.240.1.11	bond0 <input type="checkbox"/> VLAN (2)	INTERNALXMI (10.240.20.0/22)	10.240.20.2	bond1 <input type="checkbox"/> VLAN (3)	INTERNALIMI (192.168.2.0/24)	192.168.2.100	bond0 <input type="checkbox"/> VLAN (4)	Query Server	Network	IP Address	Interface	VLAN Checkbox	SDS-QS (Primary NE)	MgmtVLAN	169.254.1.13	bond0	<input checked="" type="checkbox"/>	IMI	169.254.100.13	SDS-QS (DR NE)	MgmtVLAN	169.254.1.16	bond0	<input checked="" type="checkbox"/>	IMI	169.254.100.16
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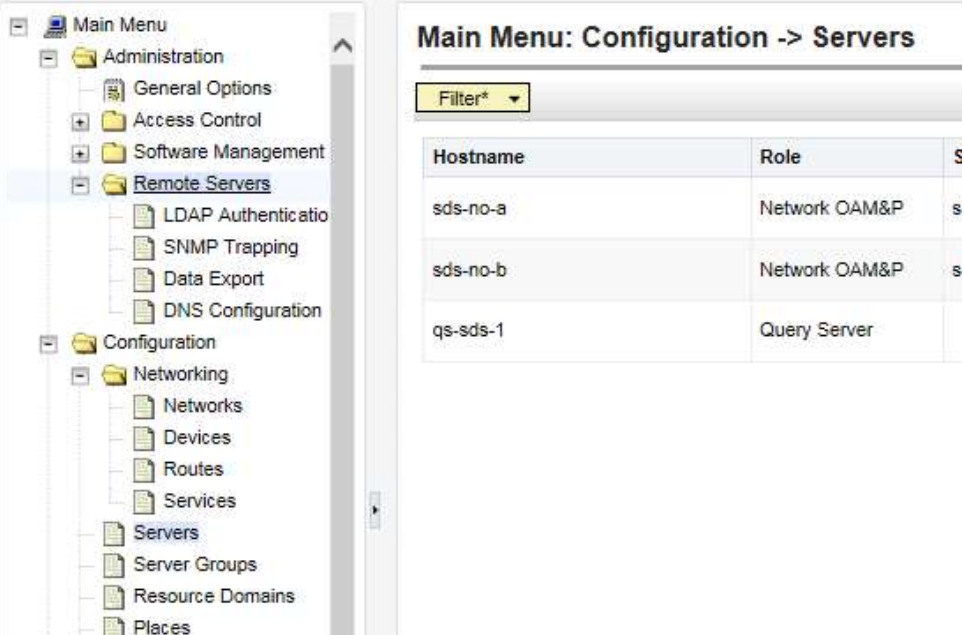


Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result													
<p>13.</p>	<p>1) Enter the customer assigned XMI IP address for the Query Server.</p> <p>Layer 3 (No VLAN tagging used for XMI)</p> <p>2) Set the XMI Interface to “bond1” and “DO NOT check” the VLAN checkbox.</p> <p>- OR -</p> <p>Layer 2 (VLAN tagging used for XMI)</p> <p>2) Set the XMI Interface to “bond0” and “check” the VLAN checkbox.</p>	 <table border="1"> <thead> <tr> <th>Query Server</th> <th>Network</th> <th>VLAN tagging (on XMI network)</th> <th>Interface</th> <th>VLAN Checkbox</th> </tr> </thead> <tbody> <tr> <td rowspan="2">SDS-QS (Primary & DR)</td> <td rowspan="2">XMI</td> <td>No</td> <td>bond1</td> <td></td> </tr> <tr> <td>Yes</td> <td>bond0</td> <td></td> </tr> </tbody> </table> <p>!!! CAUTION!!! It is crucial that the correct network configuration be selected in Steps 12 & 13 of this procedure. Choosing an incorrect configuration will result in the need to re-install the OS and restart the Query Server installation procedure over from the beginning.</p>	Query Server	Network	VLAN tagging (on XMI network)	Interface	VLAN Checkbox	SDS-QS (Primary & DR)	XMI	No	bond1		Yes	bond0	
Query Server	Network	VLAN tagging (on XMI network)	Interface	VLAN Checkbox											
SDS-QS (Primary & DR)	XMI	No	bond1												
		Yes	bond0												
<p>14.</p>	<p>SDS Server NOAM A:</p> <p>1) Click the “NTP Servers:” “Add” dialogue button.</p> <p>2) Enter the NTP Server IP Address for an NTP Server.</p> <p>3) Enter 3 NTP Server IP address, repeat (1) and (2) to enter it.</p> <p>4) Optionally, click the “Prefer” checkbox to prefer one NTP Server over the other.</p>														

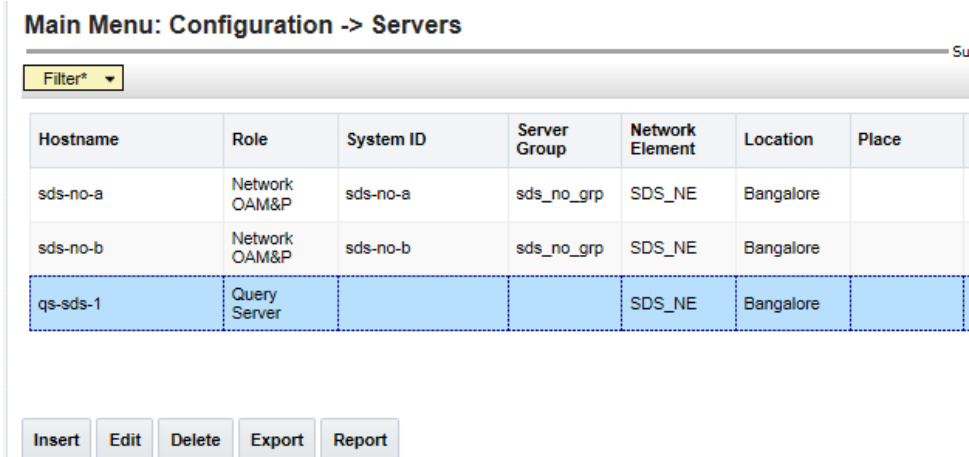
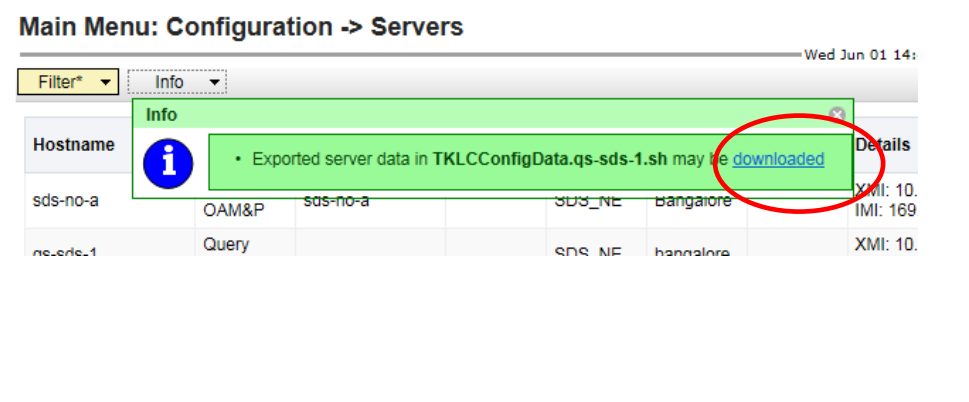
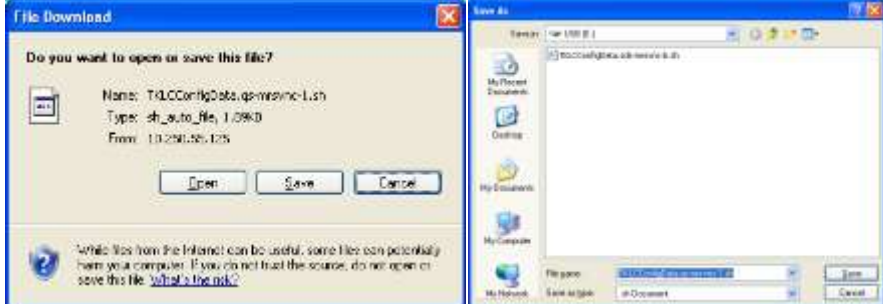
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result
<p>15.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Click the “Apply” dialogue button.</p>	
<p>16.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>If the values provided match the network ranges assigned to the NE, the user must select the 'Info' box to receive a banner information message showing that the data has been validated and committed</p>	

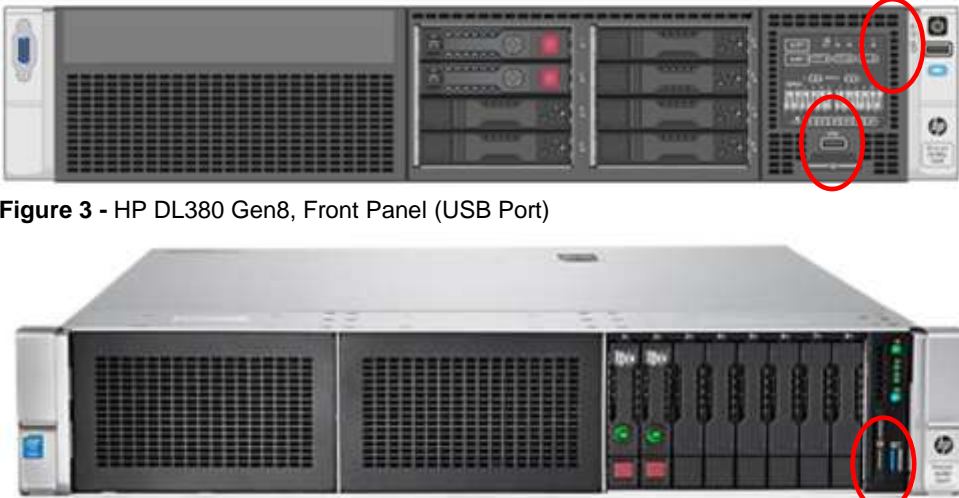
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result
<p>17.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu → Configuration → Servers</p> <p>...as shown on the right.</p>	
<p>18.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The “Configuration → Servers” screen now shows the newly added Query Server in the list.</p>	
<p>19.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Using the mouse, select the Query Server. The line entry containing the Query Server should now be highlighted.</p>	

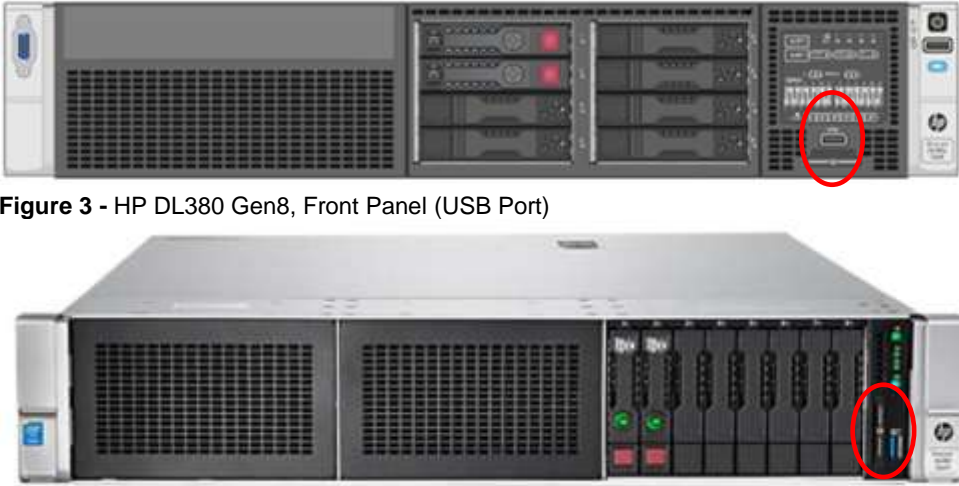
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result																												
<p>20.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select the “Export” dialogue button.</p>	 <p>Main Menu: Configuration -> Servers</p> <p>Filter* <input type="text"/></p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>System ID</th> <th>Server Group</th> <th>Network Element</th> <th>Location</th> <th>Place</th> </tr> </thead> <tbody> <tr> <td>sds-no-a</td> <td>Network OAM&P</td> <td>sds-no-a</td> <td>sds_no_grp</td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> </tr> <tr> <td>sds-no-b</td> <td>Network OAM&P</td> <td>sds-no-b</td> <td>sds_no_grp</td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> </tr> <tr style="background-color: #e6f2ff;"> <td>qs-sds-1</td> <td>Query Server</td> <td></td> <td></td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> </tr> </tbody> </table> <p>Insert Edit Delete Export Report</p>	Hostname	Role	System ID	Server Group	Network Element	Location	Place	sds-no-a	Network OAM&P	sds-no-a	sds_no_grp	SDS_NE	Bangalore		sds-no-b	Network OAM&P	sds-no-b	sds_no_grp	SDS_NE	Bangalore		qs-sds-1	Query Server			SDS_NE	Bangalore	
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<p>21.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The user must select the 'Info' box to receive a banner information message showing a download link for the Query Server configuration data.</p> <p>Click on the word “downloaded” to download and save the file.</p>	 <p>Main Menu: Configuration -> Servers</p> <p>Filter* <input type="text"/> Info <input type="button" value="Info"/></p> <p>Info</p> <p>• Exported server data in TKLCConfigData.qs-sds-1.sh may be downloaded</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>System ID</th> <th>Server Group</th> <th>Network Element</th> <th>Location</th> <th>Place</th> </tr> </thead> <tbody> <tr> <td>sds-no-a</td> <td>OAM&P</td> <td>sds-no-a</td> <td></td> <td>SDS_NE</td> <td>Bangalore</td> <td>XMI: 10. IMI: 169</td> </tr> <tr> <td>qs-sds-1</td> <td>Query</td> <td></td> <td></td> <td>SDS_NE</td> <td>Bangalore</td> <td>XMI: 10.</td> </tr> </tbody> </table>	Hostname	Role	System ID	Server Group	Network Element	Location	Place	sds-no-a	OAM&P	sds-no-a		SDS_NE	Bangalore	XMI: 10. IMI: 169	qs-sds-1	Query			SDS_NE	Bangalore	XMI: 10.							
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qs-sds-1	Query			SDS_NE	Bangalore	XMI: 10.																								
<p>22.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) Click the “Save” dialogue button.</p> <p>2) Save the Query Server configuration file to a USB flash drive.</p>	 <p>File Download</p> <p>Do you want to open or save this file?</p> <p>Name: TKLCConfigData.qs-sds-1.sh Type: sh_script_file, 1.09KB From: 10.250.155.125</p> <p>Open Save Cancel</p> <p>Save to:</p> <p>Save to USB E:</p> <p>File name: TKLCConfigData.qs-sds-1.sh</p> <p>Save As type: All Documents</p>																												
<p>23.</p> <p><input type="checkbox"/></p>	<p>Query Server:</p> <p>Access the server console.</p>	<p>Connect to the Query Server console using one of the access methods described in Section 2.3.</p>																												

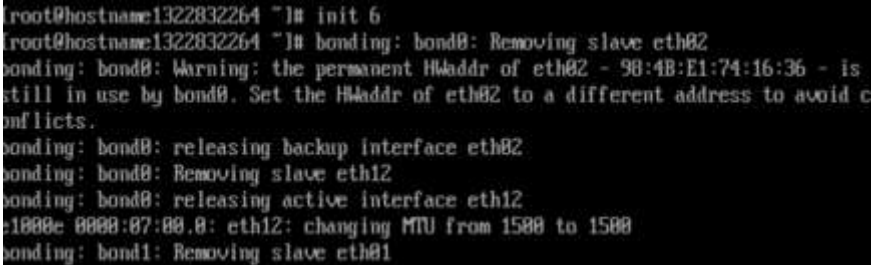
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result
<p>24.</p> <input type="checkbox"/>	<p>Query Server:</p> <p>1) Access the command prompt.</p> <p>2) Log into the server as the “admusr” user.</p>	<p>login: admusr</p> <p>Using keyboard-interactive authentication.</p> <p>Password: <admusr_password></p>
<p>25.</p> <input type="checkbox"/>	<p>Query Server:</p> <p>Insert the USB flash drive containing the server configuration file into the USB port on the front panel of the Query Server.</p>	 <p>Figure 3 - HP DL380 Gen8, Front Panel (USB Port)</p> <p>Figure 4 - HP DL380 Gen9, Front Panel (USB Port)</p>
<p>26.</p> <input type="checkbox"/>	<p>Query Server:</p> <p>Output similar to that shown on the right will appear as the USB flash drive is inserted into the SDS Server front USB port.</p>	<pre>\$ sd 3:0:0:0: [sdb] Assuming drive cache: write through sd 3:0:0:0: [sdb] Assuming drive cache: write through <ENTER></pre> <p>NOTE: Press the <ENTER> key to return to the command prompt.</p>
<p>27.</p> <input type="checkbox"/>	<p>Query Server:</p> <p>Verify that the USB flash drive’s partition has been mounted by the OS.</p>	<pre>\$ df grep sdb /dev/sdb1 2003076 8 2003068 1% /media/sdb1</pre> <p>NOTE: Search df for the device named in the previous step’s output.</p>
<p>28.</p> <input type="checkbox"/>	<p>Query Server:</p> <p>Copy the configuration file</p>	<pre>\$ sudo cp -p /media/sdb1/TKLCConfigData.qs-mrsvnc-1.sh /var/TKLC/db/filemgmt/.</pre>

Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result
<p>29.</p> <input type="checkbox"/>	<p>Query Server:</p> <p>Copy the Query Server configuration file to the “/var/tmp” directory on the server, making sure to rename the file by omitting the server hostname from the file name.</p>	<p>Example:</p> <p>TKLCConfigData<.server_hostname>.sh → will translate to →TKLCConfigData.sh</p> <p>\$ sudo cp -p /var/TKLC/db/filemgmt/TKLCConfigData.qs-mrsvnc-1.sh /var/tmp/TKLCConfigData.sh</p> <p>NOTE: The server will poll the /var/tmp directory for the presence of the configuration file and automatically execute it when found.</p>
<p>30.</p> <input type="checkbox"/>	<p>Query Server:</p> <p>After the script completes, a broadcast message will be sent to the terminal.</p> <p>NOTE: This step varies by server and may take 3...20 minutes to complete.</p>	<p>*** NO OUTPUT FOR ≈ 3-20 MINUTES ***</p> <p>Broadcast message from admusr (Mon Dec 14 16:17:13 2009): Server configuration completed successfully! See /var/TKLC/appw/logs/Process/install.log for details. Please remove the USB flash drive if connected and reboot the server.</p>
<p>31.</p> <input type="checkbox"/>	<p>Query Server:</p> <p>Remove the USB flash drive from the USB port on the front panel of Query Server.</p> <p>CAUTION: It is important that the USB flash drive be removed from the server before continuing on to the next step.</p>	 <p>Figure 3 - HP DL380 Gen8, Front Panel (USB Port)</p> <p>Figure 4 - HP DL380 Gen9, Front Panel (USB Port)</p>
<p>32.</p> <input type="checkbox"/>	<p>Query Server:</p> <p>Ignore the output shown and press the <ENTER> key to return to the command prompt.</p>	<p>Broadcast message from admusr (Mon Dec 14 16:17:13 2009):</p> <p>Server configuration completed successfully! See /var/TKLC/appw/logs/Process/install.log for details.</p> <p>Please remove the USB flash drive if connected and reboot the server. <ENTER></p>

Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result
33.	<p>SDS Server NOAM A or B:</p> <p>Verify that the desired Time Zone is currently in use.</p>	<p>\$ date</p> <p>Mon Aug 10 19:34:51 UTC 2015</p>
34. <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>If the desired Time Zone was not presented in the previous step...</p> <p>Configure the Time Zone.</p> <p>verify the timezone was changed.</p> <p>Otherwise, skip to the next step.</p>	<p><i>Example:</i> \$ sudo set_ini_tz.pl <time_zone></p> <p>NOTE: The following command example sets the time to the “UTC” (aka GMT) time zone which is recommended for all sites.</p> <p>The user may replace, as appropriate, with the customer requested time zone for this site installation. See Appendix G for a list of valid time zones.</p> <p>\$ sudo set_ini_tz.pl “Etc/UTC”</p> <p>\$ date</p> <p>Mon Aug 10 19:34:51 UTC 2015</p>
35. <input type="checkbox"/>	<p>Query Server:</p> <p>Initiate a reboot of the Query Server.</p>	<p>\$ sudo init 6</p>
36. <input type="checkbox"/>	<p>Query Server:</p> <p>Output similar to that shown on the right may be observed as the server initiates a reboot.</p>	 <pre> root@hostname:1322832264 ~# init 6 root@hostname:1322832264 ~# bonding: bond0: Removing slave eth02 bonding: bond0: Warning: the permanent Hwaddr of eth02 - 98:4B:E1:74:16:36 - is still in use by bond0. Set the Hwaddr of eth02 to a different address to avoid conflicts. bonding: bond0: releasing backup interface eth02 bonding: bond0: Removing slave eth12 bonding: bond0: releasing active interface eth12 e1806e 8008:07:00.0: eth12: changing MTU from 1500 to 1500 bonding: bond1: Removing slave eth01 </pre>
37. <input type="checkbox"/>	<p>Query Server:</p> <p>1) Access the command prompt.</p> <p>2) Login as the “admusr” user.</p>	<p>login: admusr</p> <p>Using keyboard-interactive authentication.</p> <p>Password: <admusr_password></p>

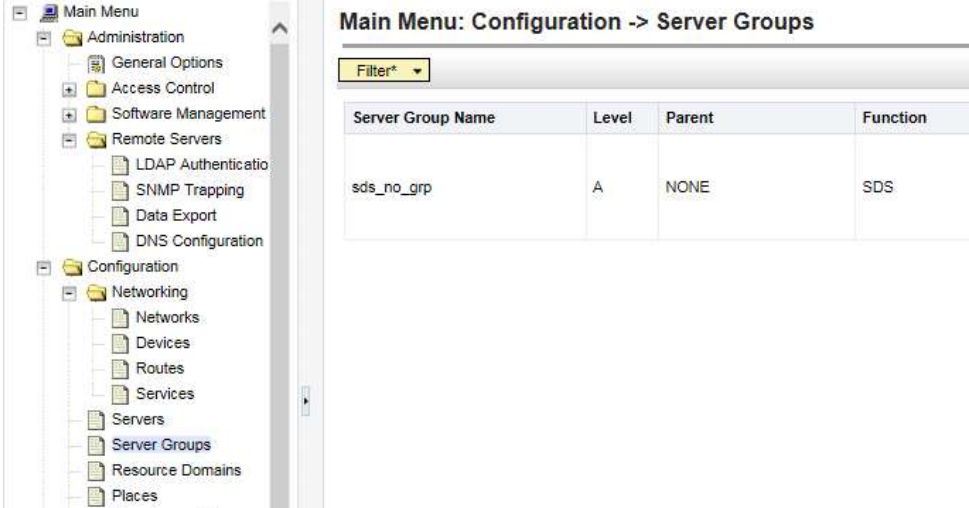

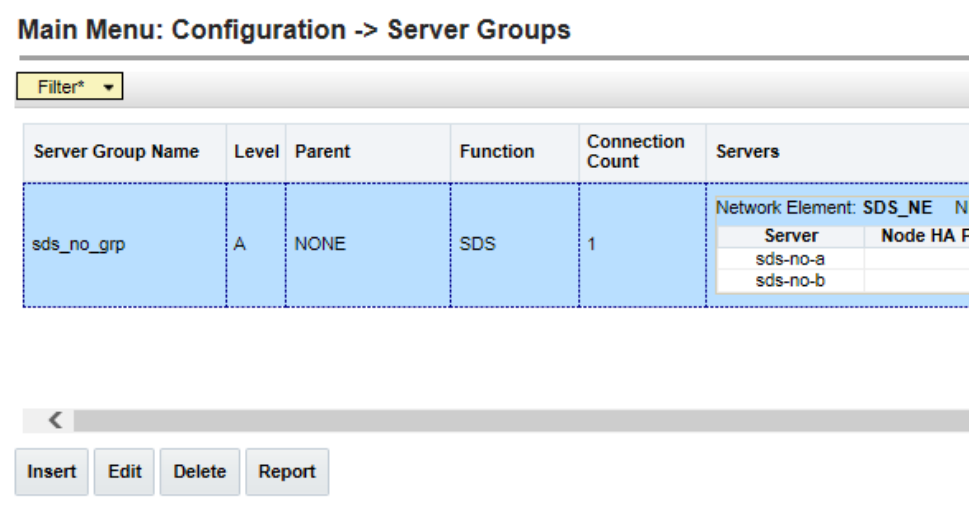
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result
38.	<p>Query Server:</p> <p>Accept upgrade to the Application Software..</p>	<pre>[admusr@rlghnc-sds-QS ~]\$ sudo /var/TKLC/backout/accept Called with options: --accept Loading Backout::BackoutType::RPM Accepting Upgrade Executing common accept tasks Setting POST_UPGRADE_ACTION to ACCEPT in upgrade info. Cleaning backout directory. Clearing Upgrade Accept/Reject alarm. Cleaning message from MOTD. No patch pending alarm on server so no MOTD update. Cleaning up RPM config backup files... Checking / Checking /boot Checking /tmp Checking /usr Checking /var Checking /var/TKLC Checking /tmp/appworks_temp Checking /usr/opencv Checking /var/TKLC/appw/logs/Process Checking /var/TKLC/appw/logs/Security Checking /var/TKLC/db/filemgmt Checking /var/TKLC/rundb Starting cleanup of RCS repository. INFO: Removing '/etc/my.cnf' from RCS repository INFO: Removing '/etc/pam.d/password-auth' from RCS repository INFO: Removing '/etc/pam.d/system-auth' from RCS repository INFO: Removing '/etc/sysconfig/network-scripts/ifcfg-eth0' from RCS repository INFO: Removing '/etc/php.d/zip.ini' from RCS repository INFO: Removing '/var/lib/prelink/force' from RCS repository [admusr@rlghnc-sds-QS ~]\$</pre>
39.	<p>Query Server:</p> <p><input type="checkbox"/> 1) Verify that the IMI IP address input in Step 12 has been applied to “bond0.4”.</p> <p>2) Verify that the XMI IP address input in Step 13 has been applied to “bond1”.</p>	<pre>\$ ifconfig grep in bond0 Link encap:Ethernet HWaddr 98:4B:E1:74:16:34 bond0.4 Link encap:Ethernet HWaddr 98:4B:E1:74:16:34 inet addr:169.254.100.13 Bcast:169.254.100.255 Mask:255.255.255.0 bond1 Link encap:Ethernet HWaddr 98:4B:E1:74:16:36 inet addr:10.250.55.127 Bcast:10.250.55.255 Mask:255.255.255.0 eth01 Link encap:Ethernet HWaddr 98:4B:E1:74:16:34 eth02 Link encap:Ethernet HWaddr 98:4B:E1:74:16:36 eth11 Link encap:Ethernet HWaddr 98:4B:E1:74:16:34 eth12 Link encap:Ethernet HWaddr 98:4B:E1:74:16:36 lo Link encap:Local Loopback inet addr:127.0.0.1 Mask:255.0.0.0</pre>

Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result
<p>40.</p> <input type="checkbox"/>	<p>Query Server: From the Query Server, “ping” the IMI IP address configured for SDS Server NOAM A.</p>	<pre>\$ ping -c 5 169.254.100.11 PING 169.254.100.11 (169.254.100.11) 56(84) bytes of data. 64 bytes from 169.254.100.11: icmp_seq=1 ttl=64 time=0.021 ms 64 bytes from 169.254.100.11: icmp_seq=2 ttl=64 time=0.019 ms 64 bytes from 169.254.100.11: icmp_seq=3 ttl=64 time=0.006 ms 64 bytes from 169.254.100.11: icmp_seq=4 ttl=64 time=0.019 ms 64 bytes from 169.254.100.11: icmp_seq=5 ttl=64 time=0.006 ms --- 169.254.100.11 ping statistics --- 5 packets transmitted, 5 received, 0% packet loss, time 3999ms rtt min/avg/max/mdev = 0.006/0.014/0.021/0.007 ms</pre>
<p>41.</p> <input type="checkbox"/>	<p>Query Server: Use “ping” to verify that the Query Server can reach the configured XMI Gateway address.</p>	<pre>\$ ping -c 5 10.250.55.1 PING 10.250.55.1 (10.250.55.1) 56(84) bytes of data. 64 bytes from 10.250.55.1: icmp_seq=1 ttl=64 time=0.018 ms 64 bytes from 10.250.55.1: icmp_seq=2 ttl=64 time=0.016 ms 64 bytes from 10.250.55.1: icmp_seq=3 ttl=64 time=0.013 ms 64 bytes from 10.250.55.1: icmp_seq=4 ttl=64 time=0.016 ms 64 bytes from 10.250.55.1: icmp_seq=5 ttl=64 time=0.011 ms --- 10.250.55.1 ping statistics --- 5 packets transmitted, 5 received, 0% packet loss, time 3999ms rtt min/avg/max/mdev = 0.011/0.014/0.018/0.005 ms</pre>
<p>42.</p> <input type="checkbox"/>	<p>Query Server: Use the “ntpq” command to verify that the server has connectivity to the assigned NTP server(s).</p>	<pre>\$ ntpq -np remote refid st t when poll reach delay offset jitter ===== +10.250.32.10 192.5.41.209 2 u 184 256 175 0.220 46.852 35.598 *10.250.32.51 192.5.41.209 2 u 181 256 377 0.176 7.130 22.192</pre>
<p>43.</p> <input type="checkbox"/>	<p>Query Server: Execute a “syscheck” to verify the current health of the server.</p>	<pre>\$ sudo syscheck Running modules in class hardware... OK Running modules in class disk... OK Running modules in class net... OK Running modules in class system... OK Running modules in class proc... OK LOG LOCATION: /var/TKLC/log/syscheck/fail_log \$</pre>

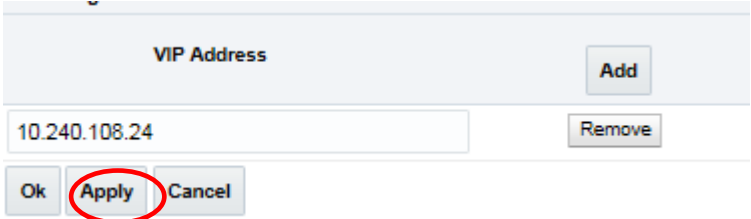
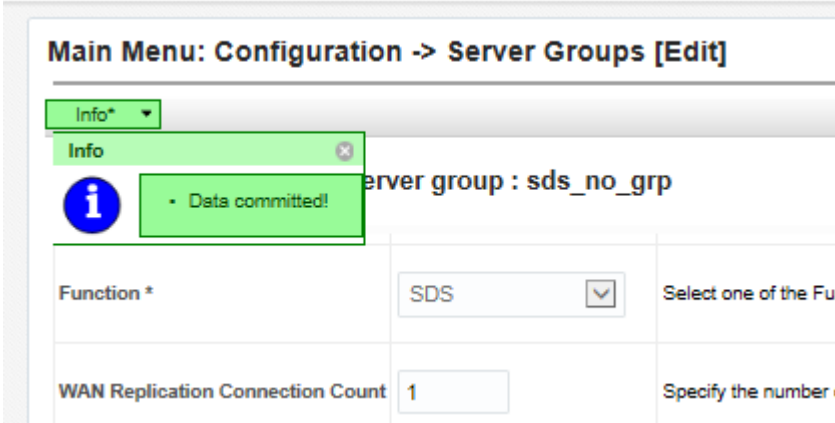
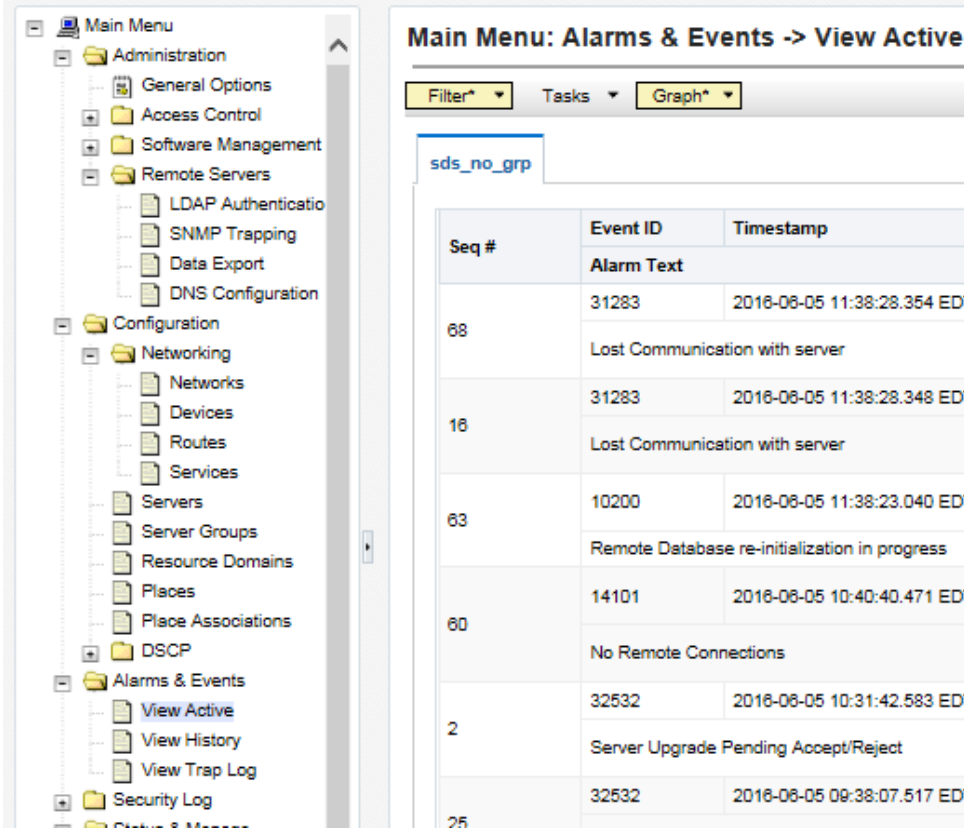
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result
<p>44.</p> <p><input type="checkbox"/></p>	<p>Query Server:</p> <p>Exit to the login prompt.</p>	<p>\$ exit</p>
<p>45.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu → Configuration → Server Groups</p> <p>...as shown on the right.</p>	
<p>46.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The user will be presented with the “Configuration → Server Groups” screen as shown on the right</p>	
<p>47.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) Using the mouse, select the SDS Server Group associated with the Query Server being installed.</p> <p>2) Select the “Edit” dialogue button from the bottom left corner of the screen.</p>	

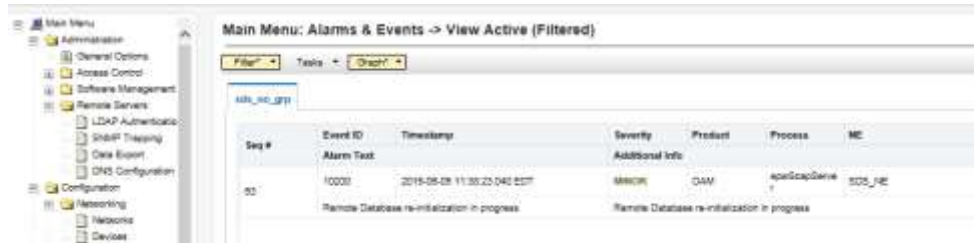
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result																																		
<p>48.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The user will be presented with the “Server Groups [Edit]” screen as shown on the right.</p>	<p>Main Menu: Configuration -> Server Groups [Edit]</p> <hr/> <p>Modifying attributes of server group : sds_no_grp</p> <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name *</td> <td>sds_no_grp</td> <td>Unique Identifier used to label a Server Group. [Defa</td> </tr> <tr> <td>Level *</td> <td>A <input type="button" value="v"/></td> <td>Select one of the Levels supported by the system [A</td> </tr> <tr> <td>Parent *</td> <td>NONE <input type="button" value="v"/></td> <td>Select an existing Server Group [A value is required.</td> </tr> <tr> <td>Function *</td> <td>SDS <input type="button" value="v"/></td> <td>Select one of the Functions supported by the system</td> </tr> <tr> <td>WAN Replication Connection Count</td> <td>1</td> <td>Specify the number of TCP connections that will be u</td> </tr> </tbody> </table> <p>SD\$_NE <input type="checkbox"/> Prefer Network Element as spare</p> <table border="1"> <thead> <tr> <th>Server</th> <th>SG Inclusion</th> <th>Preferred HA Role</th> </tr> </thead> <tbody> <tr> <td>sds-no-a</td> <td><input checked="" type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Prefer server as spare</td> </tr> <tr> <td>sds-no-b</td> <td><input checked="" type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Prefer server as spare</td> </tr> <tr> <td>qs-sds-1</td> <td><input type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Prefer server as spare</td> </tr> </tbody> </table> <p>VIP Assignment</p> <table border="1"> <thead> <tr> <th>VIP Address</th> <th><input type="button" value="Add"/></th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	Field	Value	Description	Server Group Name *	sds_no_grp	Unique Identifier used to label a Server Group. [Defa	Level *	A <input type="button" value="v"/>	Select one of the Levels supported by the system [A	Parent *	NONE <input type="button" value="v"/>	Select an existing Server Group [A value is required.	Function *	SDS <input type="button" value="v"/>	Select one of the Functions supported by the system	WAN Replication Connection Count	1	Specify the number of TCP connections that will be u	Server	SG Inclusion	Preferred HA Role	sds-no-a	<input checked="" type="checkbox"/> Include in SG	<input type="checkbox"/> Prefer server as spare	sds-no-b	<input checked="" type="checkbox"/> Include in SG	<input type="checkbox"/> Prefer server as spare	qs-sds-1	<input type="checkbox"/> Include in SG	<input type="checkbox"/> Prefer server as spare	VIP Address	<input type="button" value="Add"/>		
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<p>49.</p>	<p>Primary SDS VIP:</p> <p>Select the “Query Server” from the list of “Available Servers in Network Element” by clicking on the check box next to its name.</p>	<table border="1"> <thead> <tr> <th>Server</th> <th>SG Inclusion</th> <th>Preferred HA Role</th> </tr> </thead> <tbody> <tr> <td>sds-no-a</td> <td><input checked="" type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Prefer server as spare</td> </tr> <tr> <td>sds-no-b</td> <td><input checked="" type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Prefer server as spare</td> </tr> <tr> <td>qs-sds-1</td> <td><input checked="" type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Prefer server as spare</td> </tr> </tbody> </table>	Server	SG Inclusion	Preferred HA Role	sds-no-a	<input checked="" type="checkbox"/> Include in SG	<input type="checkbox"/> Prefer server as spare	sds-no-b	<input checked="" type="checkbox"/> Include in SG	<input type="checkbox"/> Prefer server as spare	qs-sds-1	<input checked="" type="checkbox"/> Include in SG	<input type="checkbox"/> Prefer server as spare																						
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Procedure 4: Configuring the Query Server (All SDS NOAM sites)

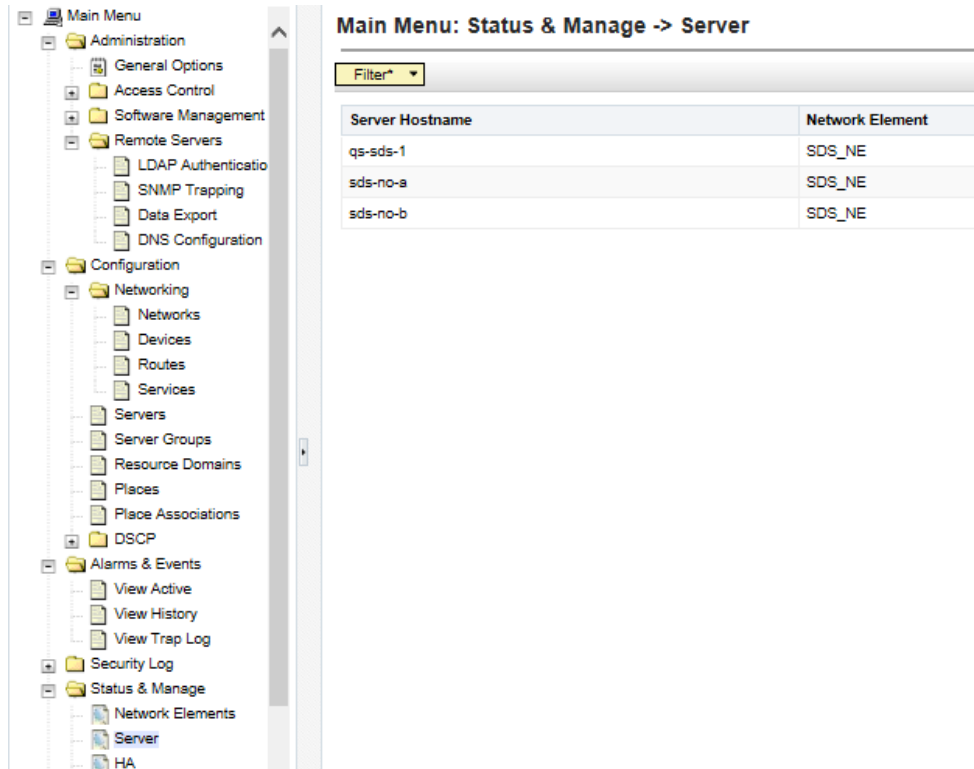
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<p>50.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Click the “Apply” dialogue button from the bottom of the screen.</p>																																					
<p>51.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The user should be presented with a banner information message stating “Data committed”.</p>																																					
<p>52.</p> <p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu → Alarms & Events → View Active</p> <p>...as shown on the right.</p>		 <table border="1"> <thead> <tr> <th>Seq #</th> <th>Event ID</th> <th>Timestamp</th> </tr> </thead> <tbody> <tr> <td>68</td> <td>31283</td> <td>2016-06-05 11:38:28.354 EDT</td> </tr> <tr> <td></td> <td colspan="2">Lost Communication with server</td> </tr> <tr> <td>16</td> <td>31283</td> <td>2016-06-05 11:38:28.348 EDT</td> </tr> <tr> <td></td> <td colspan="2">Lost Communication with server</td> </tr> <tr> <td>63</td> <td>10200</td> <td>2016-06-05 11:38:23.040 EDT</td> </tr> <tr> <td></td> <td colspan="2">Remote Database re-initialization in progress</td> </tr> <tr> <td>60</td> <td>14101</td> <td>2016-06-05 10:40:40.471 EDT</td> </tr> <tr> <td></td> <td colspan="2">No Remote Connections</td> </tr> <tr> <td>2</td> <td>32532</td> <td>2016-06-05 10:31:42.583 EDT</td> </tr> <tr> <td></td> <td colspan="2">Server Upgrade Pending Accept/Reject</td> </tr> <tr> <td>25</td> <td>32532</td> <td>2016-06-05 09:38:07.517 EDT</td> </tr> </tbody> </table>	Seq #	Event ID	Timestamp	68	31283	2016-06-05 11:38:28.354 EDT		Lost Communication with server		16	31283	2016-06-05 11:38:28.348 EDT		Lost Communication with server		63	10200	2016-06-05 11:38:23.040 EDT		Remote Database re-initialization in progress		60	14101	2016-06-05 10:40:40.471 EDT		No Remote Connections		2	32532	2016-06-05 10:31:42.583 EDT		Server Upgrade Pending Accept/Reject		25	32532	2016-06-05 09:38:07.517 EDT
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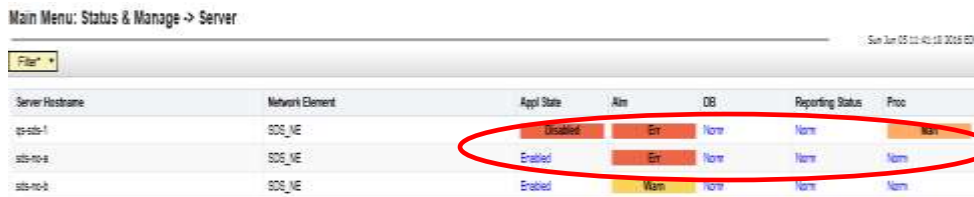
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result																					
53.	<p>SDS VIP:</p> <p>Verify that Event ID 10200 (<i>Remote Database re-initialization in progress</i>) is present with the Query Server hostname in the “Instance” field..</p>	 <p>Main Menu: Alarms & Events -> View Active (Filtered)</p> <table border="1"> <thead> <tr> <th>Seq #</th> <th>Event ID</th> <th>Timestamp</th> <th>Severity</th> <th>Product</th> <th>Process</th> <th>ME</th> </tr> </thead> <tbody> <tr> <td>53</td> <td>10200</td> <td>2015-05-08 11:30:23-040 EDT</td> <td>Minor</td> <td>QAM</td> <td>apiScapGene</td> <td>SDS_NE</td> </tr> <tr> <td colspan="2"></td> <td colspan="2">Remote Database re-initialization in progress</td> <td colspan="3">Remote Database re-initialization in progress</td> </tr> </tbody> </table>	Seq #	Event ID	Timestamp	Severity	Product	Process	ME	53	10200	2015-05-08 11:30:23-040 EDT	Minor	QAM	apiScapGene	SDS_NE			Remote Database re-initialization in progress		Remote Database re-initialization in progress		
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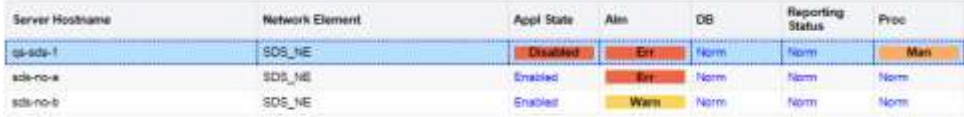
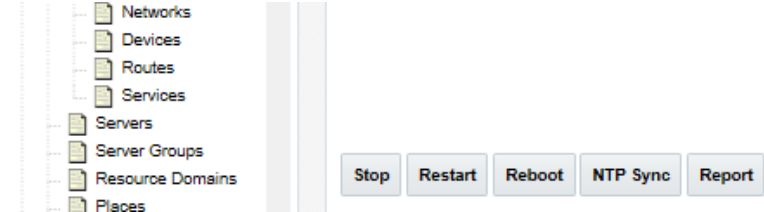
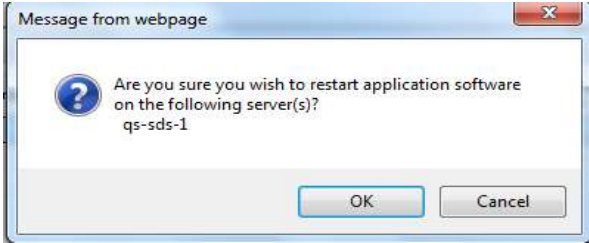
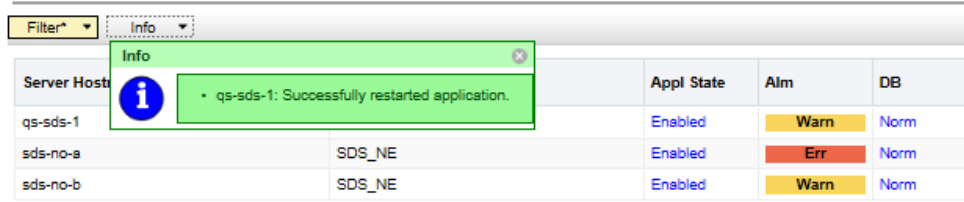
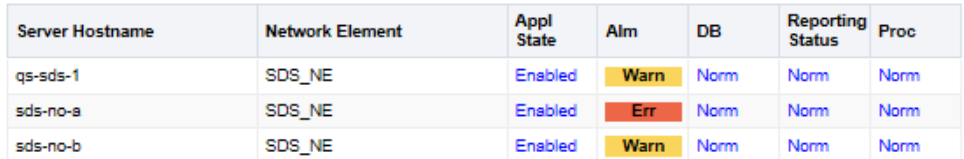
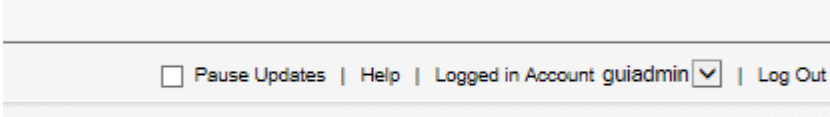


MONITOR EVENT ID 10200 (*Remote Database re-initialization in progress*).
DO NOT PROCEED TO THE NEXT STEP UNTIL THE ALARM CLEAR IS RECEIVED.

54.	<p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu → Status & Manage → Server</p> <p>...as shown on the right.</p>	 <p>Main Menu: Status & Manage -> Server</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> </tr> </thead> <tbody> <tr> <td>qs-sds-1</td> <td>SDS_NE</td> </tr> <tr> <td>sds-no-a</td> <td>SDS_NE</td> </tr> <tr> <td>sds-no-b</td> <td>SDS_NE</td> </tr> </tbody> </table>	Server Hostname	Network Element	qs-sds-1	SDS_NE	sds-no-a	SDS_NE	sds-no-b	SDS_NE
Server Hostname	Network Element									
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sds-no-a	SDS_NE									
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55.	<p>Primary SDS VIP:</p> <p>Verify that the “DB and Reporting Status” status columns show “Norm” for the Query Server at this point. The “Proc” column should show “Man”.</p>	 <p>Main Menu: Status & Manage -> Server</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>App State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>qs-sds-1</td> <td>SDS_NE</td> <td>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>sds-no-a</td> <td>SDS_NE</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-no-b</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table>	Server Hostname	Network Element	App State	Alm	DB	Reporting Status	Proc	qs-sds-1	SDS_NE	Disabled	Err	Norm	Norm	Man	sds-no-a	SDS_NE	Enabled	Err	Norm	Norm	Norm	sds-no-b	SDS_NE	Enabled	Warn	Norm	Norm	Norm
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Procedure 4: Configuring the Query Server (All SDS NOAM sites)

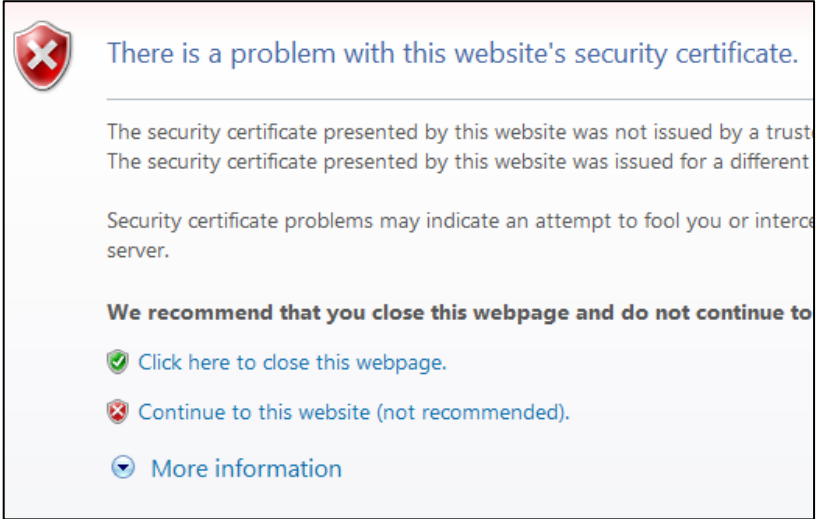

Step	Procedure	Result																																																								
<p>56.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) Using the mouse, select the “Query Server” hostname. The line entry should now be highlighted.</p> <p>2) Select the “Restart” dialogue button from the bottom left corner of the screen.</p> <p>3) Click the “OK” button on the confirmation dialogue box.</p> <p>4) The user should be presented with a confirmation message (in the banner area) for the “Query Server” stating: “Successfully restarted application”.</p> <p><i>NOTE: The user may need to use the vertical scroll-bar in order to make the “Restart” dialogue button visible.</i></p>	 <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>qs-sds-1</td> <td>SDS_NE</td> <td>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>sds-no-a</td> <td>SDS_NE</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-no-b</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table>   <p>Main Menu: Status & Manage -> Server</p>  <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>qs-sds-1</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-no-a</td> <td>SDS_NE</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-no-b</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table>	Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc	qs-sds-1	SDS_NE	Disabled	Err	Norm	Norm	Man	sds-no-a	SDS_NE	Enabled	Err	Norm	Norm	Norm	sds-no-b	SDS_NE	Enabled	Warn	Norm	Norm	Norm	Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc	qs-sds-1	SDS_NE	Enabled	Warn	Norm	Norm	Norm	sds-no-a	SDS_NE	Enabled	Err	Norm	Norm	Norm	sds-no-b	SDS_NE	Enabled	Warn	Norm	Norm	Norm
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sds-no-b	SDS_NE	Enabled	Warn	Norm	Norm	Norm																																																				
<p>57.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Verify that the “Appl State” now shows “Enabled” and that the “Alm, DB, Reporting Status & Proc” status columns all show “Norm” for the “Query Server”.</p>	 <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>qs-sds-1</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-no-a</td> <td>SDS_NE</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-no-b</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table>	Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc	qs-sds-1	SDS_NE	Enabled	Warn	Norm	Norm	Norm	sds-no-a	SDS_NE	Enabled	Err	Norm	Norm	Norm	sds-no-b	SDS_NE	Enabled	Warn	Norm	Norm	Norm																												
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sds-no-b	SDS_NE	Enabled	Warn	Norm	Norm	Norm																																																				
<p>58.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Click the “Logout” link on the SDS server GUI.</p>																																																									

5.4 OAM Installation for the DR SDS NOAM site

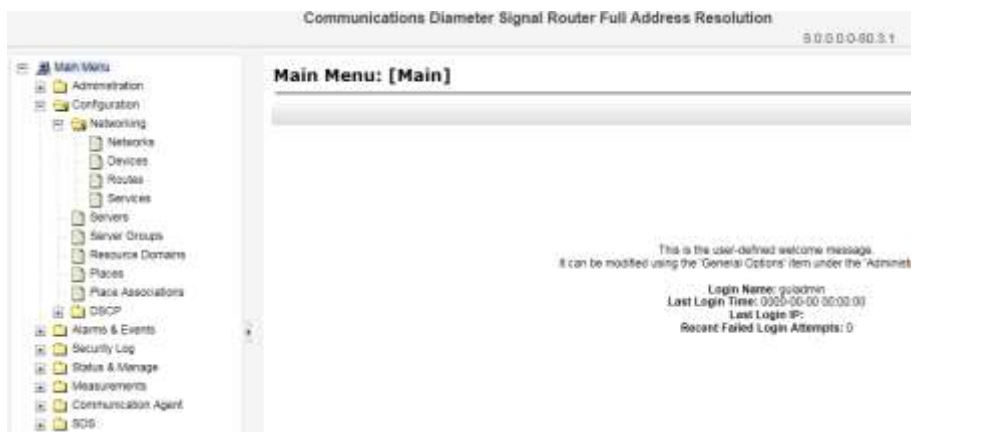


Assumptions:

- This procedure assumes that the SDS Network Element XML file for the Disaster Recovery SDS Provisioning site has previously been created, as described in **Appendix E**.
- This procedure assumes that the Network Element XML files are either on a USB flash drive or the laptop’s hard drive. The steps are written as if the XML files are on a USB flash drive, but the files can exist on any accessible drive.



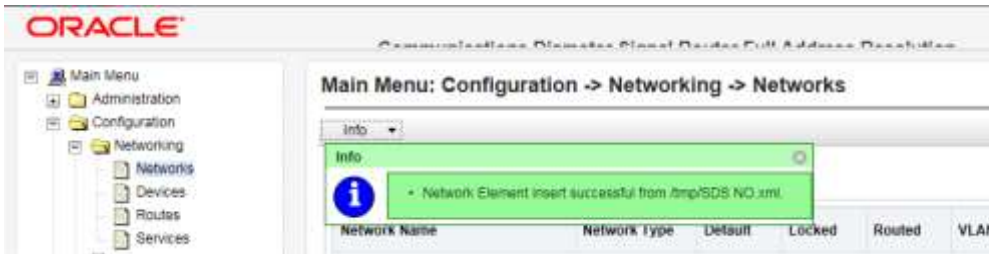

Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

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

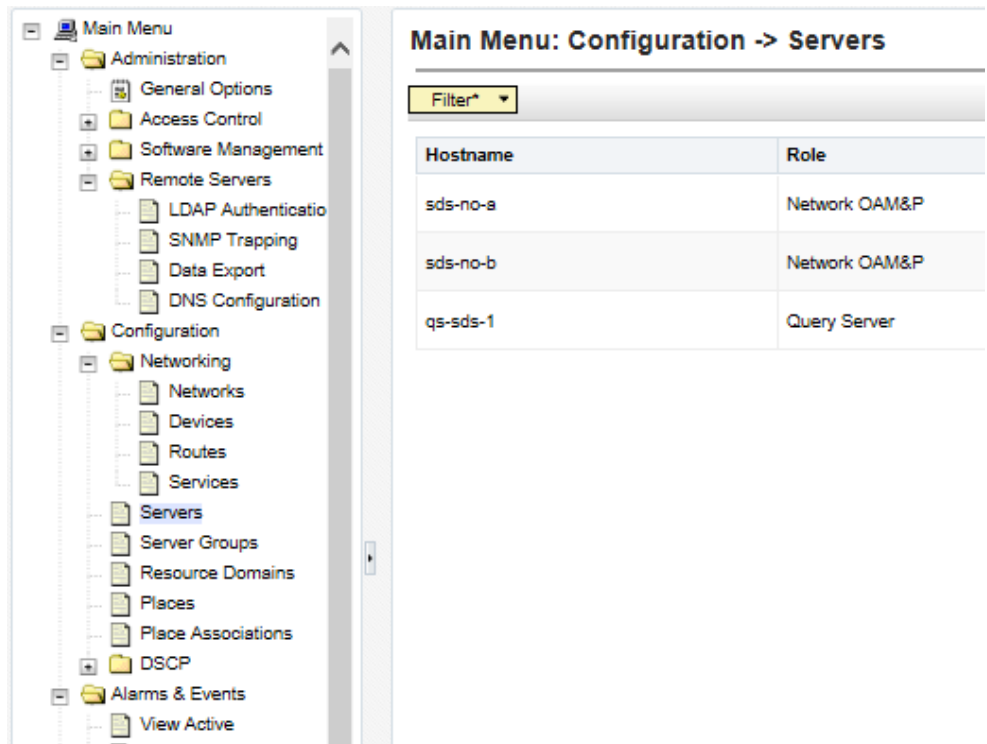
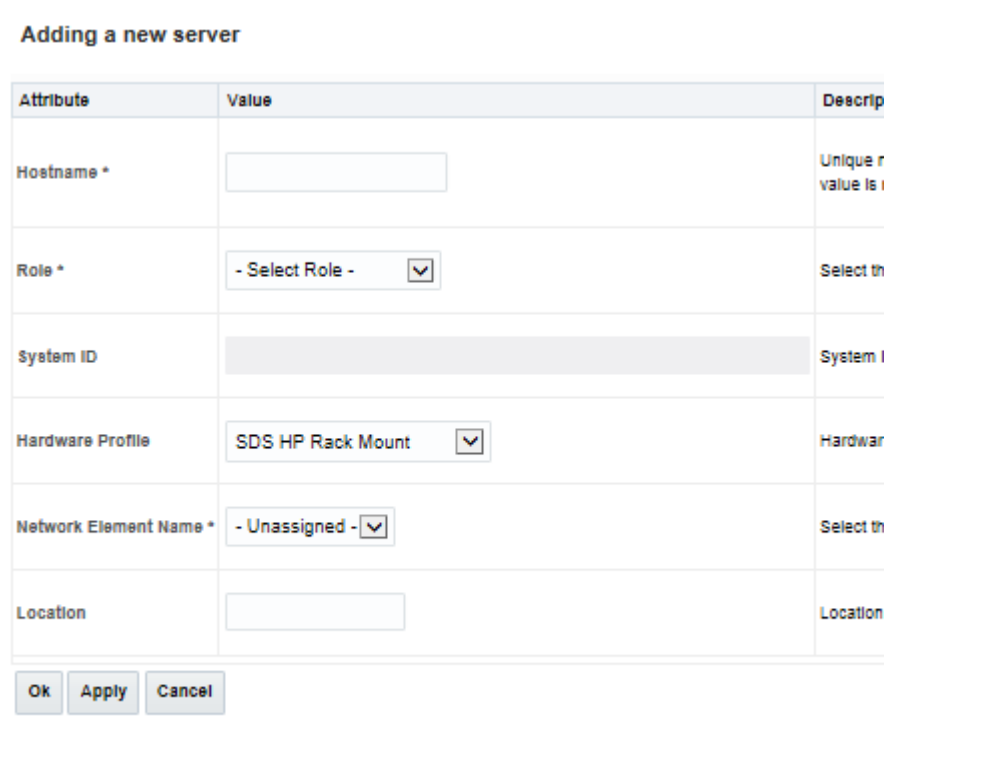
Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
<p>3.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>Primary SDS VIP:</p> <p>The user should be presented the SDS Main Menu as shown on the right.</p>	
<p>4.</p>	<p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu → Configuration → Network Elements</p> <p>...as shown on the right.</p>	
<p>5.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>Primary SDS VIP:</p> <p>From the Configuration / Network Elements screen...</p> <p>Select the "Browse" dialogue button (scroll to bottom left corner of screen).</p>	

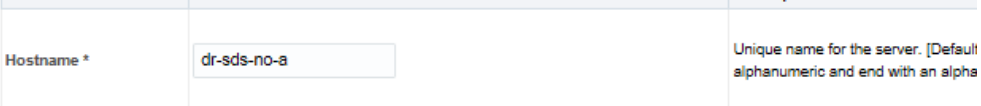


Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result																								
<p>6.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Note: This step assumes that the .xml files were previously prepared, as described in Appendix E.</p> <p>1) Select the location containing the site .xml file.</p> <p>2) Select the .xml file and click the “Open” dialogue button.</p>																									
<p>7.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select the “Upload File” dialogue button (bottom left corner of screen).</p>																									
<p>8.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>If the values in the .xml file pass validation rules, the user must select the 'Info' box to receive a banner information message showing that the data has been successfully validated and committed to the DB.</p>	  <table border="1"> <thead> <tr> <th>Network Name</th> <th>Network Type</th> <th>Default</th> <th>Locked</th> <th>Routed</th> <th>VLAN</th> <th>Configured Interfaces</th> <th>Network</th> </tr> </thead> <tbody> <tr> <td>XMI</td> <td>OAM</td> <td>Yes</td> <td>Yes</td> <td>Yes</td> <td>14</td> <td>0</td> <td>10.240.108.0/26</td> </tr> <tr> <td>IMI</td> <td>OAM</td> <td>No</td> <td>Yes</td> <td>No</td> <td>15</td> <td>0</td> <td>169.254.2.0/26</td> </tr> </tbody> </table>	Network Name	Network Type	Default	Locked	Routed	VLAN	Configured Interfaces	Network	XMI	OAM	Yes	Yes	Yes	14	0	10.240.108.0/26	IMI	OAM	No	Yes	No	15	0	169.254.2.0/26
Network Name	Network Type	Default	Locked	Routed	VLAN	Configured Interfaces	Network																			
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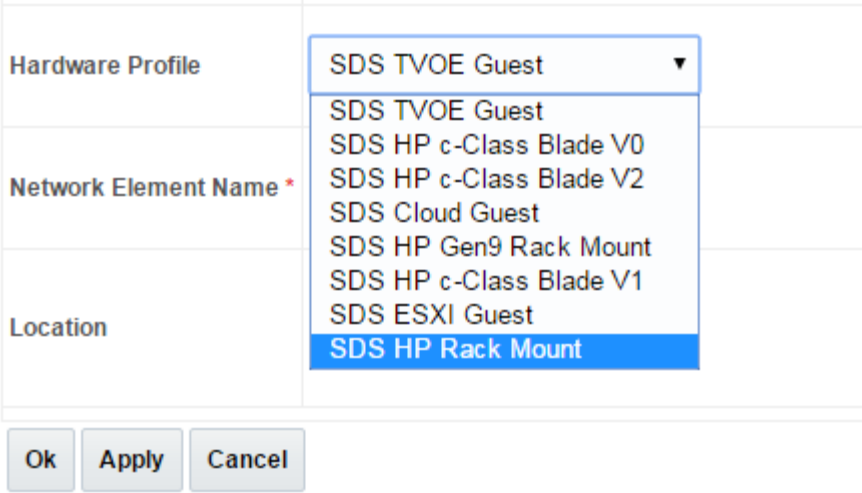
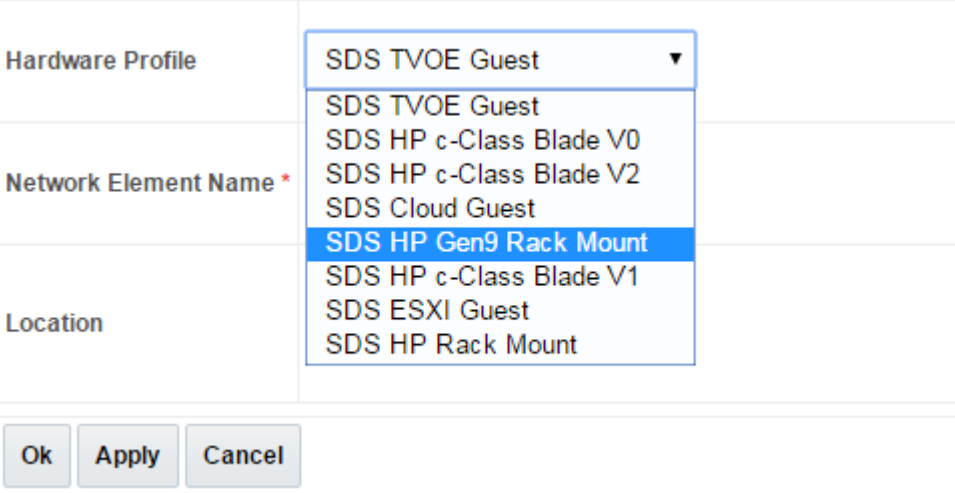

Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result																					
<p>9.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) Select...</p> <p>Main Menu → Configuration → Servers</p> <p>...as shown on the right.</p> <p>2) Select the "Insert" dialogue button (bottom left corner of screen).</p>	 <p>The screenshot shows the 'Main Menu: Configuration -> Servers' interface. On the left is a tree view with 'Servers' selected under 'Configuration'. On the right is a table with the following data:</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> </tr> </thead> <tbody> <tr> <td>sds-no-a</td> <td>Network OAM&P</td> </tr> <tr> <td>sds-no-b</td> <td>Network OAM&P</td> </tr> <tr> <td>qs-sds-1</td> <td>Query Server</td> </tr> </tbody> </table>	Hostname	Role	sds-no-a	Network OAM&P	sds-no-b	Network OAM&P	qs-sds-1	Query Server													
Hostname	Role																						
sds-no-a	Network OAM&P																						
sds-no-b	Network OAM&P																						
qs-sds-1	Query Server																						
<p>10.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The user is now presented with the "Adding a new server" configuration screen.</p>	 <p>The screenshot shows the 'Adding a new server' dialog box with the following fields:</p> <table border="1"> <thead> <tr> <th>Attribute</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Hostname *</td> <td><input type="text"/></td> <td>Unique r value is i</td> </tr> <tr> <td>Role *</td> <td>- Select Role -</td> <td>Select th</td> </tr> <tr> <td>System ID</td> <td><input type="text"/></td> <td>System I</td> </tr> <tr> <td>Hardware Profile</td> <td>SDS HP Rack Mount</td> <td>Hardwar</td> </tr> <tr> <td>Network Element Name *</td> <td>- Unassigned -</td> <td>Select th</td> </tr> <tr> <td>Location</td> <td><input type="text"/></td> <td>Location</td> </tr> </tbody> </table> <p>Buttons: Ok, Apply, Cancel</p>	Attribute	Value	Description	Hostname *	<input type="text"/>	Unique r value is i	Role *	- Select Role -	Select th	System ID	<input type="text"/>	System I	Hardware Profile	SDS HP Rack Mount	Hardwar	Network Element Name *	- Unassigned -	Select th	Location	<input type="text"/>	Location
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Network Element Name *	- Unassigned -	Select th																					
Location	<input type="text"/>	Location																					

Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
<p>11.</p> <input type="checkbox"/>	<p>Primary SDS VIP: Input the assigned “hostname” for DR NOAM Server.</p>	
<p>12.</p> <input type="checkbox"/>	<p>Primary SDS VIP: Select “NETWORK OAM&P” for the server “Role” from the pull-down menu.</p>	
<p>13.</p> <input type="checkbox"/>	<p>Primary SDS VIP: Input the assigned hostname again as the “System ID” for the SDS DR Server (A or B).</p>	







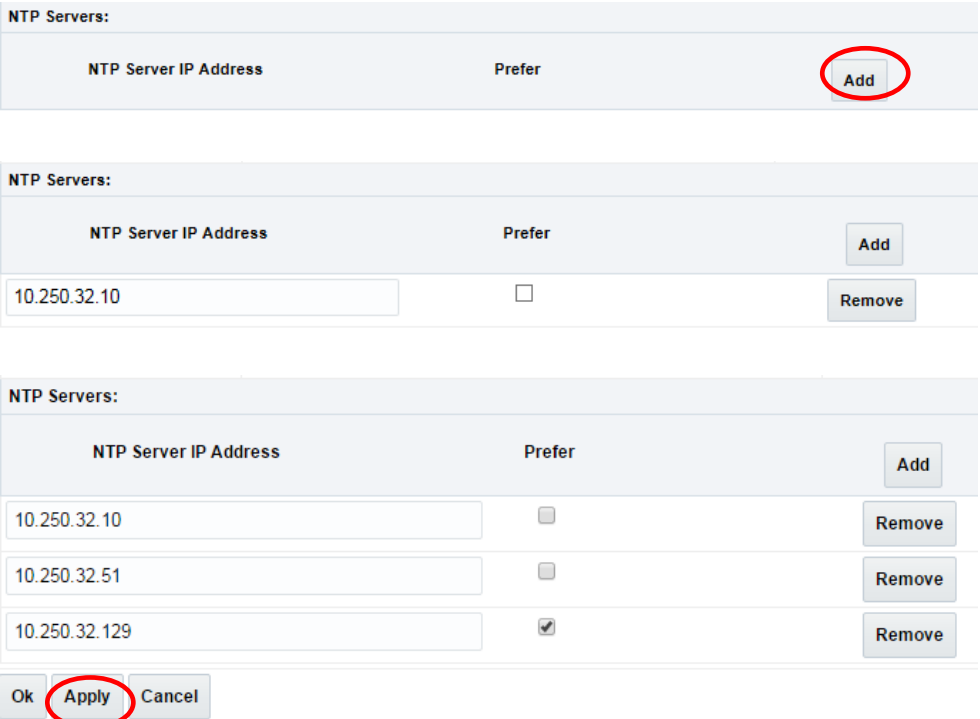
Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
<p>14.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>For Gen8 Server: Select “SDS HP Rack Mount” for the Hardware Profile for the SDS from the pull-down menu.</p> <p>For Gen9 Server: Select “SDS HP Gen9 Rack Mount” for the Hardware Profile for the SDS from the pull-down menu.</p>	<p>For Gen8 select “SDS HP Rack Mount” from the Hardware Profile pull-down menu.</p>  <p>For Gen9 select “SDS HP Gen9 Rack Mount” from the Hardware Profile pull-down menu.</p> 
<p>15.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Select the Network Element Name for the SDS from the pull-down menu.</p>	 <p>NOTE: After the Network Element Name is selected, the Interfaces fields will be displayed, as seen in Step 17.</p>

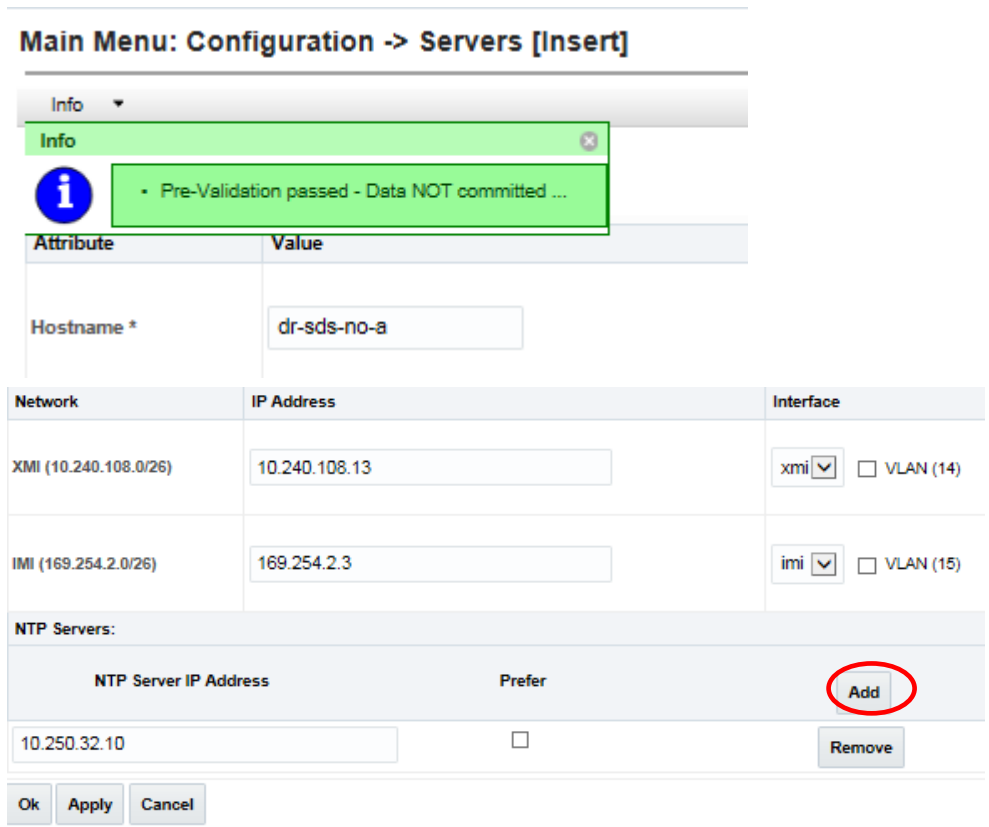
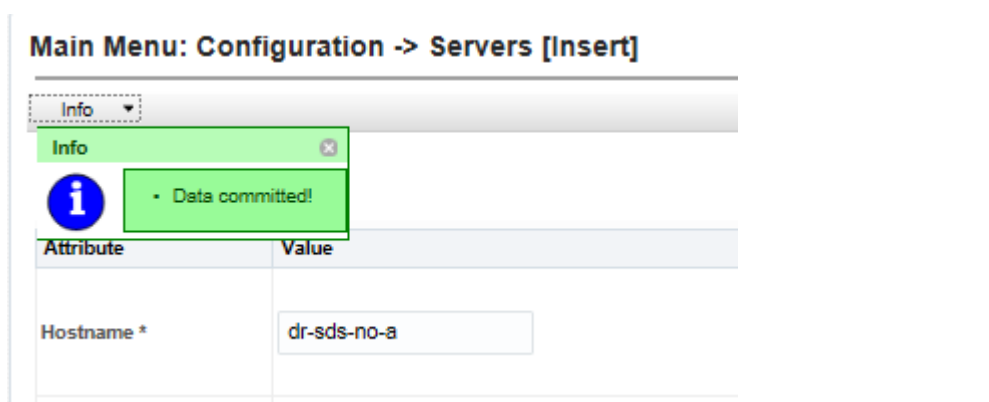
Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result																			
<p>16.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Enter the site location.</p>	<div style="border: 1px solid #ccc; padding: 5px;"> <p>Location <input type="text" value="bangalore"/> Location description [Default]</p> </div> <p>NOTE: Location is an optional field.</p>																			
<p>17.</p>	<p>SDS Server NOAM A:</p> <p>1) Enter the MgmtVLAN IP address for the DR SDS Server.</p> <p>2) Set the MgmtVLAN Interface to “bond0” and “check” the VLAN checkbox.</p> <p>3) Enter the IMI IP address for the DR SDS Server.</p> <p>4) Set the IMI Interface to “bond0” and “check” the VLAN checkbox.</p>	<div style="border: 1px solid #ccc; padding: 5px;"> <p>XMI (10.240.108.0/26) <input type="text" value="10.240.108.13"/> <input type="text" value="xmi"/> <input type="checkbox"/> VLAN (14)</p> <p>IMI (169.254.2.0/26) <input type="text" value="169.254.2.3"/> <input type="text" value="imi"/> <input type="checkbox"/> VLAN (15)</p> </div> <table border="1"> <thead> <tr> <th>SDS Server (DR NOAM)</th> <th>Network</th> <th>IP Address</th> <th>Interface</th> <th>VLAN Checkbox</th> </tr> </thead> <tbody> <tr> <td rowspan="2">DR SDS-A</td> <td>MgmtVLAN</td> <td>169.254.1.14</td> <td rowspan="2">bond0</td> <td rowspan="2" style="text-align: center;">✔</td> </tr> <tr> <td>IMI</td> <td>169.254.100.14</td> </tr> <tr> <td rowspan="2">DR SDS-B</td> <td>MgmtVLAN</td> <td>169.254.1.15</td> <td rowspan="2">bond0</td> <td rowspan="2" style="text-align: center;">✔</td> </tr> <tr> <td>IMI</td> <td>169.254.100.15</td> </tr> </tbody> </table> <p>NOTE_1: These IP addresses are based on the info in the NAPD and the Network Element Config file.</p> <p>NOTE_2: The MgmtVLAN should only be present when 4948E-F AggregationSwitches are deployed with SDS NOAM / Query Server RMS. If the MgmtVLAN is not present, the IMI network values shown above still apply.</p>	SDS Server (DR NOAM)	Network	IP Address	Interface	VLAN Checkbox	DR SDS-A	MgmtVLAN	169.254.1.14	bond0	✔	IMI	169.254.100.14	DR SDS-B	MgmtVLAN	169.254.1.15	bond0	✔	IMI	169.254.100.15
SDS Server (DR NOAM)	Network	IP Address	Interface	VLAN Checkbox																	
DR SDS-A	MgmtVLAN	169.254.1.14	bond0	✔																	
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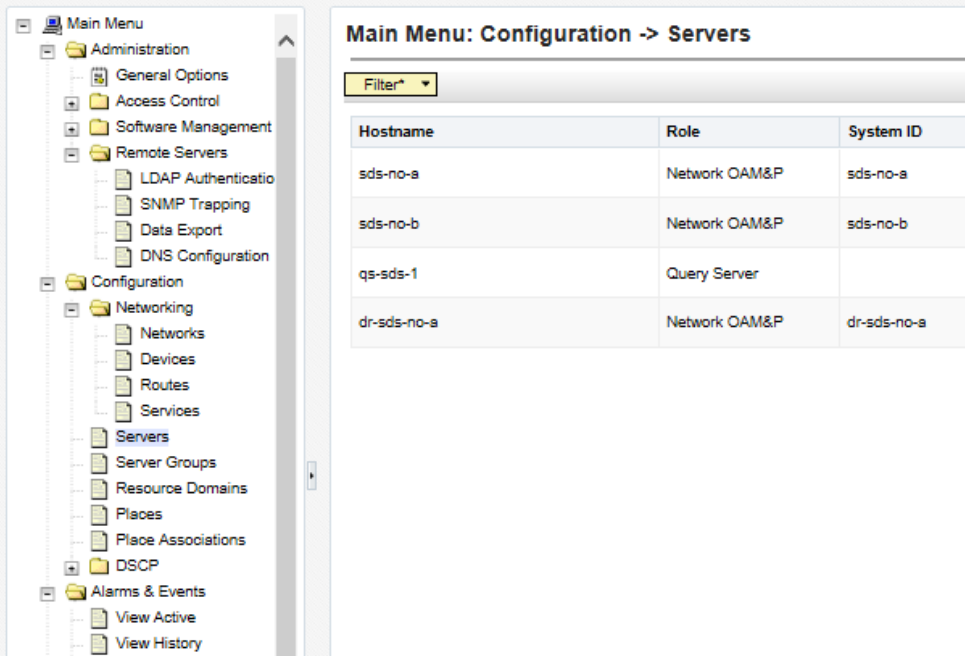
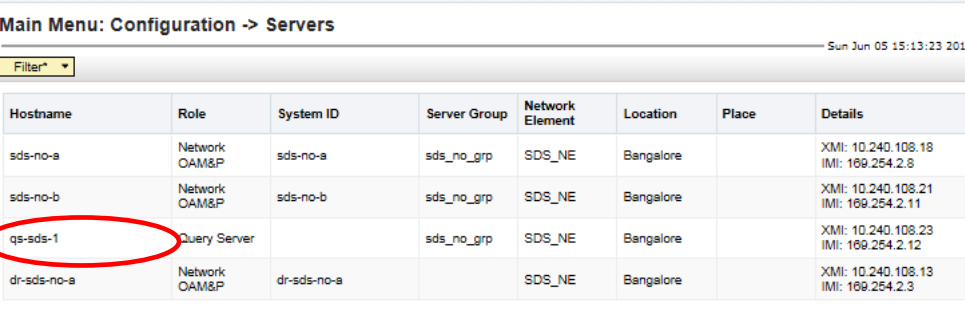
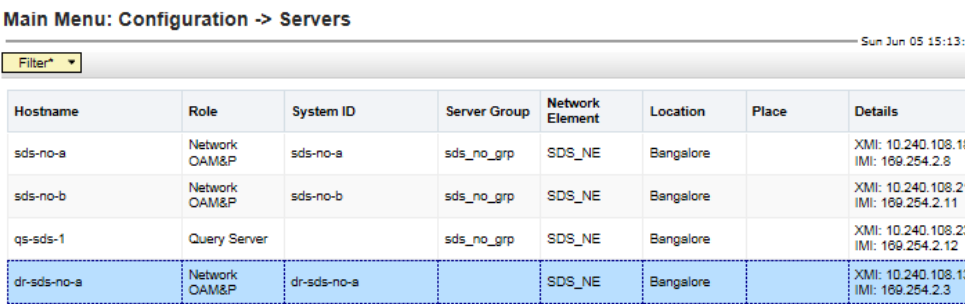
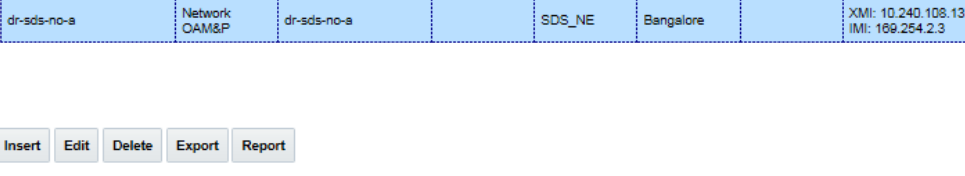
Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result													
<p>18.</p>	<p>1) Enter the customer assigned XMI IP address for the DR SDS Server.</p> <p>Layer 3 (No VLAN tagging used for XMI)</p> <p>2) Set the XMI Interface to “bond1” and “DO NOT check” the VLAN checkbox. - OR -</p> <p>Layer 2 (VLAN tagging used for XMI)</p> <p>2) Set the XMI Interface to “bond0” and “check” the VLAN checkbox.</p>	<table border="1"> <thead> <tr> <th>SDS Server (DR NOAM)</th> <th>Network</th> <th>VLAN tagging (on XMI network)</th> <th>Interface</th> <th>VLAN Checkbox</th> </tr> </thead> <tbody> <tr> <td rowspan="2">DR SDS NOAM Server (A or B)</td> <td rowspan="2">XMI</td> <td>No</td> <td>bond1</td> <td></td> </tr> <tr> <td>Yes</td> <td>bond0</td> <td></td> </tr> </tbody> </table> <p>!!! CAUTION!!! It is crucial that the correct network configuration be selected in Steps 17 & 18 of this procedure. Choosing an incorrect configuration will result in the need to re-install the OS and restart the DR SDS installation procedures over from the beginning.</p>	SDS Server (DR NOAM)	Network	VLAN tagging (on XMI network)	Interface	VLAN Checkbox	DR SDS NOAM Server (A or B)	XMI	No	bond1		Yes	bond0	
SDS Server (DR NOAM)	Network	VLAN tagging (on XMI network)	Interface	VLAN Checkbox											
DR SDS NOAM Server (A or B)	XMI	No	bond1												
		Yes	bond0												
<p>19.</p> <p><input type="checkbox"/></p>	<p>SDS Server NOAM A:</p> <p>1) Click the “NTP Servers:” “Add” dialogue button.</p> <p>2) Enter the NTP Server IP Address for an NTP Server.</p> <p>3) Enter 3 NTP Server IP address, repeat (1) and (2) to enter it.</p> <p>4) Optionally, click the “Prefer” checkbox to prefer one NTP Server over the other.</p>	 <p>The screenshot shows three instances of the 'NTP Servers' configuration panel. Each panel has a table with columns for 'NTP Server IP Address', 'Prefer', and 'Add'. The first panel has an 'Add' button circled in red. The second panel has the IP address '10.250.32.10' entered and a 'Remove' button. The third panel has three IP addresses: '10.250.32.10', '10.250.32.51', and '10.250.32.129'. The 'Prefer' checkbox is checked for '10.250.32.129'. At the bottom, 'Ok', 'Apply' (circled in red), and 'Cancel' buttons are visible.</p>													

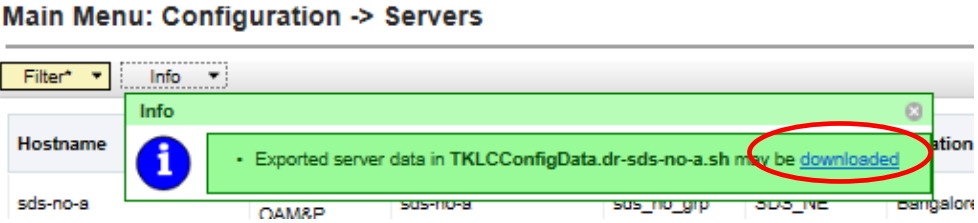
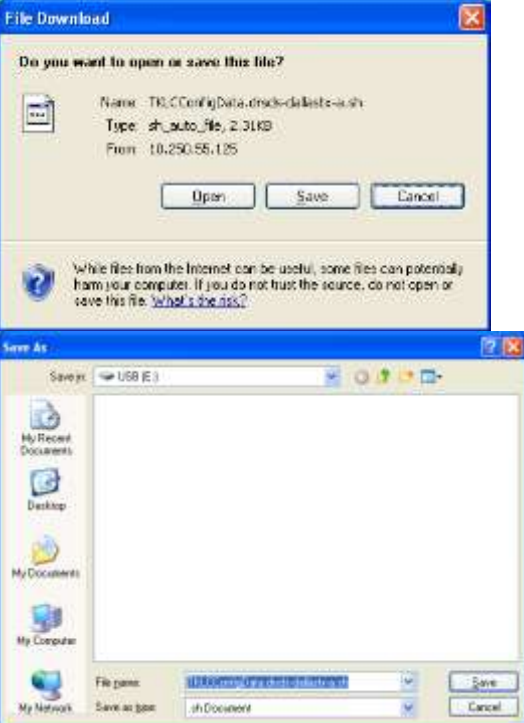
Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
<p>20.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Click the “Apply” dialogue button.</p>	 <p>The screenshot shows the 'Main Menu: Configuration -> Servers [Insert]' page. An 'Info' box displays the message 'Pre-Validation passed - Data NOT committed ...'. Below this, there are input fields for 'Hostname *' (dr-sds-no-a), 'Network' (XMI and IMI), 'IP Address', and 'Interface'. At the bottom, there is an 'NTP Servers' section with an 'Add' button circled in red.</p>
<p>21.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>If the values provided match the network ranges assigned to the NE, the user must select the 'Info' box to receive a banner information message showing that the data has been committed to the DB.</p>	 <p>The screenshot shows the same configuration page as above, but the 'Info' box now displays the message 'Data committed!'. The 'Add' button is no longer visible.</p>



Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result																																								
<p>22.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu → Configuration → Servers</p> <p>...as shown on the right.</p>	 <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>System ID</th> </tr> </thead> <tbody> <tr> <td>sds-no-a</td> <td>Network OAM&P</td> <td>sds-no-a</td> </tr> <tr> <td>sds-no-b</td> <td>Network OAM&P</td> <td>sds-no-b</td> </tr> <tr> <td>qs-sds-1</td> <td>Query Server</td> <td></td> </tr> <tr> <td>dr-sds-no-a</td> <td>Network OAM&P</td> <td>dr-sds-no-a</td> </tr> </tbody> </table>	Hostname	Role	System ID	sds-no-a	Network OAM&P	sds-no-a	sds-no-b	Network OAM&P	sds-no-b	qs-sds-1	Query Server		dr-sds-no-a	Network OAM&P	dr-sds-no-a																									
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<p>23.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>On the “Configuration → Servers” screen, find the newly added DR NOAM server in the list.</p>	 <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>System ID</th> <th>Server Group</th> <th>Network Element</th> <th>Location</th> <th>Place</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>sds-no-a</td> <td>Network OAM&P</td> <td>sds-no-a</td> <td>sds_no_grp</td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> <td>XML: 10.240.108.18 IMI: 169.254.2.8</td> </tr> <tr> <td>sds-no-b</td> <td>Network OAM&P</td> <td>sds-no-b</td> <td>sds_no_grp</td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> <td>XML: 10.240.108.21 IMI: 169.254.2.11</td> </tr> <tr> <td>qs-sds-1</td> <td>Query Server</td> <td></td> <td>sds_no_grp</td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> <td>XML: 10.240.108.23 IMI: 169.254.2.12</td> </tr> <tr> <td>dr-sds-no-a</td> <td>Network OAM&P</td> <td>dr-sds-no-a</td> <td></td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> <td>XML: 10.240.108.13 IMI: 169.254.2.3</td> </tr> </tbody> </table>	Hostname	Role	System ID	Server Group	Network Element	Location	Place	Details	sds-no-a	Network OAM&P	sds-no-a	sds_no_grp	SDS_NE	Bangalore		XML: 10.240.108.18 IMI: 169.254.2.8	sds-no-b	Network OAM&P	sds-no-b	sds_no_grp	SDS_NE	Bangalore		XML: 10.240.108.21 IMI: 169.254.2.11	qs-sds-1	Query Server		sds_no_grp	SDS_NE	Bangalore		XML: 10.240.108.23 IMI: 169.254.2.12	dr-sds-no-a	Network OAM&P	dr-sds-no-a		SDS_NE	Bangalore		XML: 10.240.108.13 IMI: 169.254.2.3
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<p>24.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Use the cursor to select the new DR NOAM server entry added in the Steps 10 - 21.</p> <p>The row containing the server should now be highlighted.</p>	 <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>System ID</th> <th>Server Group</th> <th>Network Element</th> <th>Location</th> <th>Place</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>sds-no-a</td> <td>Network OAM&P</td> <td>sds-no-a</td> <td>sds_no_grp</td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> <td>XML: 10.240.108.18 IMI: 169.254.2.8</td> </tr> <tr> <td>sds-no-b</td> <td>Network OAM&P</td> <td>sds-no-b</td> <td>sds_no_grp</td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> <td>XML: 10.240.108.21 IMI: 169.254.2.11</td> </tr> <tr> <td>qs-sds-1</td> <td>Query Server</td> <td></td> <td>sds_no_grp</td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> <td>XML: 10.240.108.23 IMI: 169.254.2.12</td> </tr> <tr> <td>dr-sds-no-a</td> <td>Network OAM&P</td> <td>dr-sds-no-a</td> <td></td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> <td>XML: 10.240.108.13 IMI: 169.254.2.3</td> </tr> </tbody> </table>	Hostname	Role	System ID	Server Group	Network Element	Location	Place	Details	sds-no-a	Network OAM&P	sds-no-a	sds_no_grp	SDS_NE	Bangalore		XML: 10.240.108.18 IMI: 169.254.2.8	sds-no-b	Network OAM&P	sds-no-b	sds_no_grp	SDS_NE	Bangalore		XML: 10.240.108.21 IMI: 169.254.2.11	qs-sds-1	Query Server		sds_no_grp	SDS_NE	Bangalore		XML: 10.240.108.23 IMI: 169.254.2.12	dr-sds-no-a	Network OAM&P	dr-sds-no-a		SDS_NE	Bangalore		XML: 10.240.108.13 IMI: 169.254.2.3
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<p>25.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select the “Export” dialogue button (bottom left corner of screen).</p>	 <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>System ID</th> <th>Server Group</th> <th>Network Element</th> <th>Location</th> <th>Place</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>dr-sds-no-a</td> <td>Network OAM&P</td> <td>dr-sds-no-a</td> <td></td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> <td>XML: 10.240.108.13 IMI: 169.254.2.3</td> </tr> </tbody> </table> <p>Insert Edit Delete Export Report</p>	Hostname	Role	System ID	Server Group	Network Element	Location	Place	Details	dr-sds-no-a	Network OAM&P	dr-sds-no-a		SDS_NE	Bangalore		XML: 10.240.108.13 IMI: 169.254.2.3																								
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Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
<p>26.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>The user must select the 'Info' box to receive a banner information message showing a download link for the Server configuration data.</p> <p>Click on the word “downloaded” to download and save the SDS DR NOAM server configuration file.</p>	
<p>27.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>1) Click the “Save” dialogue button.</p> <p>2) Save the SDS DR NOAM server configuration file to a USB flash drive.</p>	
<p>28.</p> <input type="checkbox"/>	<p>SDS DR NOAM Server:</p> <p>Access the server console.</p>	<p>Connect to the SDS DR NOAM Server console using one of the access methods described in Section 2.3.</p>



Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
<p>29.</p> <input type="checkbox"/>	<p>SDS DR NOAM Server:</p> <p>1) Access the command prompt.</p> <p>2) Log into the server as the "admusr" user.</p>	<p>login: admusr</p> <p>Using keyboard-interactive authentication.</p> <p>Password: <admusr_password></p>
<p>30.</p> <input type="checkbox"/>	<p>SDS DR NOAM Server:</p> <p>Insert the USB flash drive containing the server configuration file into the USB port on the front panel of the server.</p>	 <p>Figure 3 - HP DL380 Gen8, Front Panel (USB Port)</p>  <p>Figure 4 - HP DL380 Gen9, Front Panel (USB Port)</p>
<p>31.</p> <input type="checkbox"/>	<p>SDS DR NOAM Server:</p> <p>Output similar to that shown on the right will appear as the USB flash drive is inserted into the SDS Server front USB port.</p>	<pre>\$ sd 3:0:0:0: [sdb] Assuming drive cache: write through sd 3:0:0:0: [sdb] Assuming drive cache: write through <ENTER></pre> <p>NOTE: Press the <ENTER> key to return to the command prompt.</p>
<p>32.</p> <input type="checkbox"/>	<p>SDS DR NOAM Server:</p> <p>Verify that the USB flash drive's partition has been mounted by the OS</p>	<pre>\$ df grep sdb /dev/sdb1 2003076 8 2003068 1% /media/sdb1</pre>

Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
<p>33.</p> <input type="checkbox"/>	<p>SDS DR NOAM Server:</p> <p>Copy the configuration file to the SDS server with the server name as shown in red</p>	<pre>\$ sudo cp -p /media/sdb1/TKLCConfigData.dr-sds-no-a.sh /var/TKLC/db/filegmt/</pre>
<p>34.</p> <input type="checkbox"/>	<p>SDS DR NOAM Server:</p> <p>Copy the server configuration file to the “/var/tmp” directory on the server, making sure to rename the file by omitting the server hostname from the file name.</p>	<p><i>Example:</i> TKLCConfigData<.server_hostname>.sh → will translate to →TKLCConfigData.sh</p> <pre>\$ sudo cp -p /var/TKLC/db/filegmt/TKLCConfigData.dr-sds-no-a.sh /var/tmp/TKLCConfigData.sh</pre> <p>NOTE: The server will poll the /var/tmp directory for the presence of the configuration file and automatically execute it when found.</p>
<p>35.</p> <input type="checkbox"/>	<p>SDS DR NOAM Server:</p> <p>After the script completes, a broadcast message will be sent to the terminal.</p>	<p>*** NO OUTPUT FOR ≈ 3-20 MINUTES ***</p> <p>Broadcast message from admusr (Mon Dec 14 15:47:33 2009):</p> <p>Server configuration completed successfully! See /var/TKLC/appw/logs/Process/install.log for details.</p> <p>Please remove the USB flash drive if connected and reboot the server.</p> <p><ENTER></p> <p>NOTE: The user should be aware that the time to complete this step varies by server and may take from 3-20 minutes to complete.</p>

Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
<p>36.</p> <input type="checkbox"/>	<p>SDS DR NOAM Server:</p> <p>Remove the USB flash drive from the USB port on the front panel of OAM server.</p> <p>CAUTION: <i>It is important that the USB flash drive be removed from the server before continuing on to the next step.</i></p>	 <p>Figure 3 - HP DL380 Gen8, Front Panel (USB Port)</p>  <p>Figure 4 - HP DL380 Gen9, Front Panel (USB Port)</p>
<p>37.</p>	<p>SDS Server NOAM A or B:</p> <p>Verify that the desired Time Zone is currently in use.</p>	<p>\$ date</p> <p>Mon Aug 10 19:34:51 UTC 2015</p>
<p>38.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>If the desired Time Zone was not presented in the previous step...</p> <p>Configure the Time Zone.</p> <p>Otherwise, skip to the next step.</p>	<p>Example: <code>\$ sudo set_ini_tz.pl <time_zone></code></p> <p>NOTE: <i>The following command example sets the time to the "UTC" (aka GMT) time zone which is recommended for all sites. The user may replace, as appropriate, with the customer requested time zone for this site installation. See Appendix G for a list of valid time zones.</i></p> <p><code>\$ sudo set_ini_tz.pl "Etc/UTC"</code></p>
<p>39.</p> <input type="checkbox"/>	<p>Server NOAM A:</p> <p>Initiate a reboot of the OAM server.</p>	<p><code>\$ sudo init 6</code></p>

Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
<p>40.</p> <input type="checkbox"/>	<p>SDS DR NOAM Server:</p> <p>Wait ~9 minutes</p> <p>Output similar to that shown on the right may be observed as the server initiates a reboot.</p>	<pre>(root@hostname1322679281 ~)# init 6 (root@hostname1322679281 ~)# bonding: bond0: Removing slave eth02 bonding: bond0: Warning: the permanent HWaddr of eth02 - 98:4B:E1:6F:74:56 - still in use by bond0. Set the HWaddr of eth02 to a different address to avo nfllicts. bonding: bond0: releasing active interface eth02 bonding: bond0: making interface eth12 the new active one. bonding: bond0: Removing slave eth12 bonding: bond0: releasing active interface eth12 e1000e 0000:07:00.0: eth12: changing MTU from 1500 to 1500 bonding: bond1: Removing slave eth01</pre>
<p>41.</p> <input type="checkbox"/>	<p>SDS DR NOAM Server:</p> <p>1) After the reboot, access the command prompt.</p> <p>2) Log into the server as the “admusr” user.</p>	<p>login: admusr</p> <p>Using keyboard-interactive authentication.</p> <p>Password: <admusr_password></p>
<p>42.</p> <input type="checkbox"/>	<p>SDS DR NOAM Server:</p> <p>1) Verify that the IMI IP address input in Step 18 has been applied to “bond0.4”.</p> <p>2) Verify that the XMI IP address input in Step 17 has been applied to “bond1”.</p>	<pre>\$ ifconfig grep in bond0 Link encap:Ethernet HWaddr 98:4B:E1:74:15:2C bond0.4 Link encap:Ethernet HWaddr 98:4B:E1:74:15:2C inet addr:169.254.100.14 Bcast:169.254.100.255 Mask:255.255.255.0 bond1 Link encap:Ethernet HWaddr 98:4B:E1:74:15:2E inet addr:10.250.55.161 Bcast:10.250.55.255 Mask:255.255.255.0 eth01 Link encap:Ethernet HWaddr 98:4B:E1:74:15:2C eth02 Link encap:Ethernet HWaddr 98:4B:E1:74:15:2E eth11 Link encap:Ethernet HWaddr 98:4B:E1:74:15:2C eth12 Link encap:Ethernet HWaddr 98:4B:E1:74:15:2E lo Link encap:Local Loopback inet addr:127.0.0.1 Mask:255.0.0.0</pre>
<p>43.</p> <input type="checkbox"/>	<p>SDS DR NOAM Server B:</p> <p>Use the “ntpq” command to verify that the server has connectivity to the assigned Primary and Secondary NTP server(s).</p>	<pre>\$ ntpq -np remote refid st t when poll reach delay offset jitter ===== +10.250.32.10 192.5.41.209 2 u 59 64 377 0.142 -2468.3 99.875 *10.250.32.51 192.5.41.209 2 u 58 64 377 0.124 -2528.2 128.432</pre>

Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
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IF CONNECTIVITY TO THE NTP SERVER(S) CANNOT BE ESTABLISHED, STOP AND EXECUTE THE FOLLOWING STEPS:

- 1) Contact the customer to verify that the IP addresses for the NTP server(s) are correct.
- 2) Have the customer IT group provide a network path from the OAM server IP to the assigned NTP IP addresses.

ONCE NETWORK CONNECTIVITY IS ESTABLISHED TO THE ASSIGNED NTP IP ADDRESSES, THEN RESTART THIS PROCEDURE BEGINNING WITH STEP 44.

<p>44.</p> <input type="checkbox"/>	<p>SDS DR NOAM Server:</p> <p>Execute a “syscheck” to verify the current health of the server.</p>	<p>\$ sudo syscheck</p> <pre>Running modules in class hardware... OK Running modules in class disk... OK Running modules in class net... OK Running modules in class system... OK Running modules in class proc... OK LOG LOCATION: /var/TKLC/log/syscheck/fail_log</pre>
<p>45.</p> <input type="checkbox"/>	<p>SDS DR NOAM Server:</p> <p>Exit from the command line to return the server console</p>	<p>\$ exit</p> <p>logout</p>
<p>46.</p> <input type="checkbox"/>	<ul style="list-style-type: none"> • Configure DR SDS Server B by repeating steps 9 - 45 of this procedure. 	



IF 4948E-F SWITCH CONFIGURATION HAS NOT BEEN COMPLETED PRIOR TO THIS STEP, STOP AND EXECUTE THE FOLLOWING STEPS:

- 1) APPENDIX D.1
- 2) APPENDIX D.2 (*Appendix D.2 references Appendix D.3 where applicable*).

Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
<p>47.</p> <input type="checkbox"/>	<p>DR SDS Server NOAM A:</p> <p>From DR SDS Server NOAM A, “ping” the IMI IP address DR SDS NOAM Server B.</p>	<p>\$ ping -c 5 169.254.100.15</p> <p>PING 169.254.100.14 (169.254.100.15) 56(84) bytes of data. 64 bytes from 169.254.100.15: icmp_seq=1 ttl=64 time=0.021 ms 64 bytes from 169.254.100.15: icmp_seq=2 ttl=64 time=0.011 ms 64 bytes from 169.254.100.15: icmp_seq=3 ttl=64 time=0.020 ms 64 bytes from 169.254.100.15: icmp_seq=4 ttl=64 time=0.011 ms 64 bytes from 169.254.100.15: icmp_seq=5 ttl=64 time=0.023 ms<CTRL-C></p> <p>--- 169.254.100.15 ping statistics --- 5 packets transmitted, 5 received, 0% packet loss, time 3999ms rtt min/avg/max/mdev = 0.011/0.017/0.023/0.005 ms</p>
<p>48.</p> <input type="checkbox"/>	<p>DR SDS NOAM Server(s): A & B</p> <p>Use “ping” to verify that the DR SDS NOAM Server can now reach the local XMI Gateway address.</p>	<p>\$ ping 10.250.55.161</p> <p>PING 10.250.55.161 (10.250.55.161) 56(84) bytes of data. 64 bytes from 10.250.55.161: icmp_seq=1 ttl=64 time=0.021 ms 64 bytes from 10.250.55.161: icmp_seq=2 ttl=64 time=0.017 ms 64 bytes from 10.250.55.161: icmp_seq=3 ttl=64 time=0.017 ms 64 bytes from 10.250.55.161: icmp_seq=4 ttl=64 time=0.022 ms 64 bytes from 10.250.55.161: icmp_seq=5 ttl=64 time=0.012 ms<CTRL-C></p> <p>--- 10.250.55.161 ping statistics --- 5 packets transmitted, 5 received, 0% packet loss, time 3999ms rtt min/avg/max/mdev = 0.012/0.017/0.022/0.006 ms</p>
<p>49.</p>	<p>DR SDS Server(s): A & B</p> <p>Use “ping” to verify that the DR SDS Server can now reach the Primary SDS VIP address.</p>	<p>\$ ping -c 5 10.250.55.126</p> <p>PING 10.250.55.126 (10.250.55.126) 56(84) bytes of data. 64 bytes from 10.250.55.126: icmp_seq=1 ttl=64 time=0.021 ms 64 bytes from 10.250.55.126: icmp_seq=2 ttl=64 time=0.017 ms 64 bytes from 10.250.55.126: icmp_seq=3 ttl=64 time=0.017 ms 64 bytes from 10.250.55.126: icmp_seq=4 ttl=64 time=0.022 ms 64 bytes from 10.250.55.126: icmp_seq=5 ttl=64 time=0.012 ms<CTRL-C></p> <p>--- 10.250.55.126 ping statistics --- 5 packets transmitted, 5 received, 0% packet loss, time 3999ms rtt min/avg/max/mdev = 0.012/0.017/0.022/0.006 ms</p>
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>		


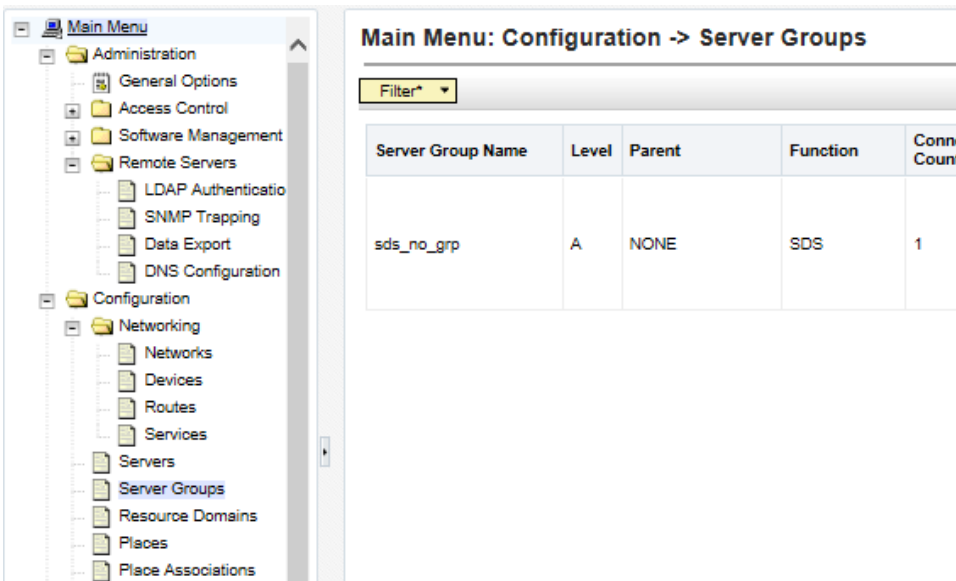
5.5 OAM Pairing for DR SDS NOAM site

The user should be aware that during the OAM Pairing procedure, various errors may be seen at different stages of the procedure. During the execution of a step, the user is directed to ignore errors related to values other than the ones referenced by that step.

Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

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

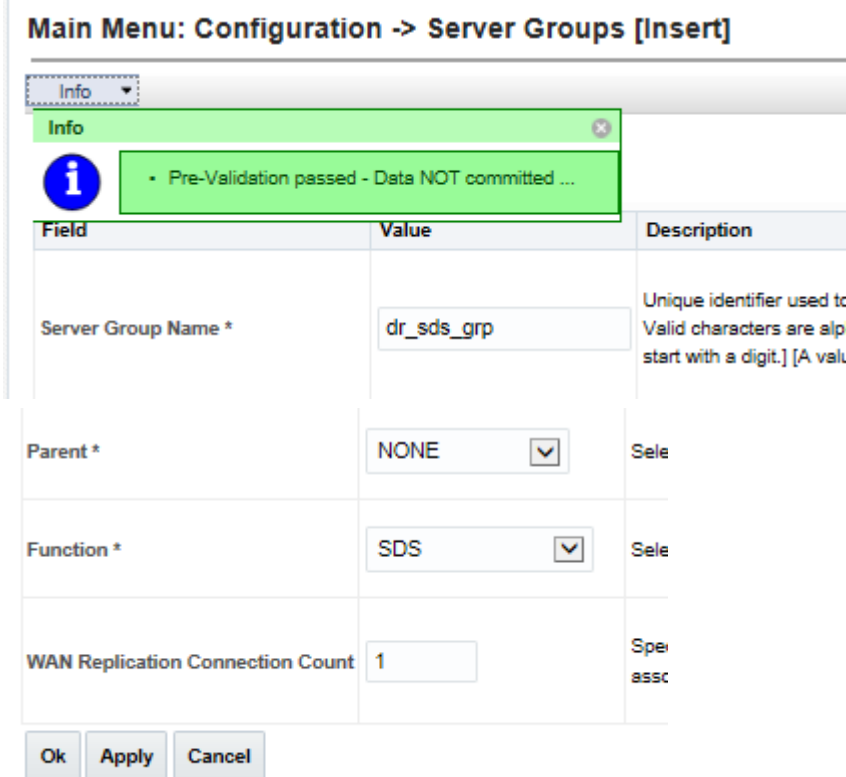
Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result										
<p>3.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>The user should be presented the SDS Main Menu as shown on the right.</p>	 <p>The screenshot shows the 'Main Menu: [Main]' interface. On the left is a tree view with categories like Administration, Configuration, Networking, Servers, and SDS. The main area displays a welcome message: 'This is the user-defined welcome message. It can be modified using the 'General Options' item under the 'Administ...'. Below this, it shows user information: 'Login Name: goldmin', 'Last Login Time: 0000-00-00 00:00:00', 'Last Login IP:', and 'Recent Failed Login Attempts: 0'.</p>										
<p>4.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu → Configuration → <i>Server Groups</i></p> <p>...as shown on the right.</p>	 <p>The screenshot shows the 'Main Menu: Configuration -> Server Groups' interface. It features a 'Filter*' dropdown and a table with the following data:</p> <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Conn Count</th> </tr> </thead> <tbody> <tr> <td>sds_no_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>1</td> </tr> </tbody> </table>	Server Group Name	Level	Parent	Function	Conn Count	sds_no_grp	A	NONE	SDS	1
Server Group Name	Level	Parent	Function	Conn Count								
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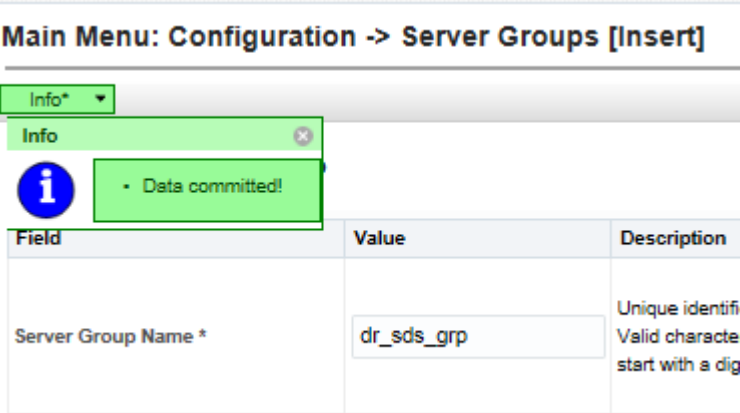
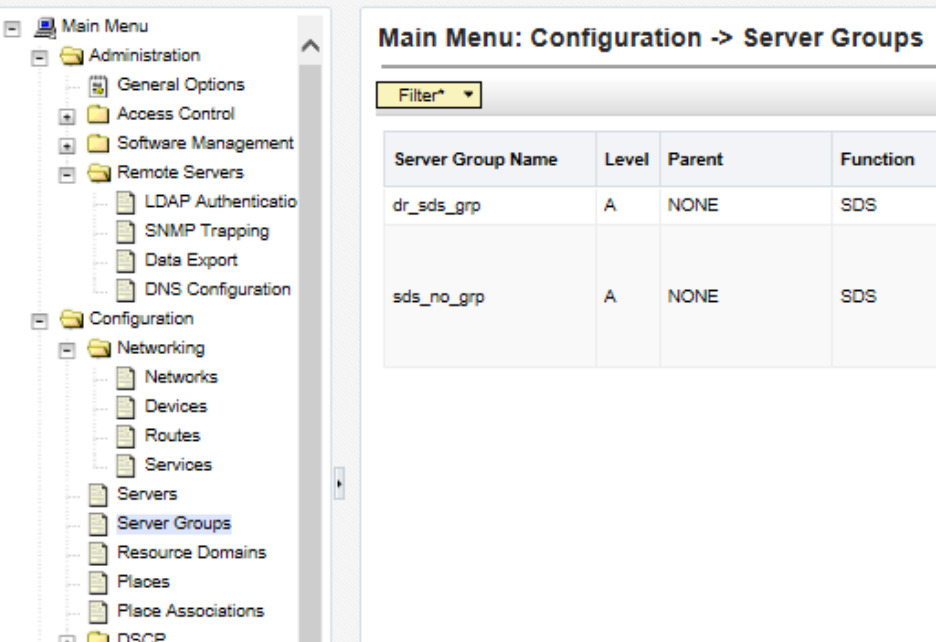
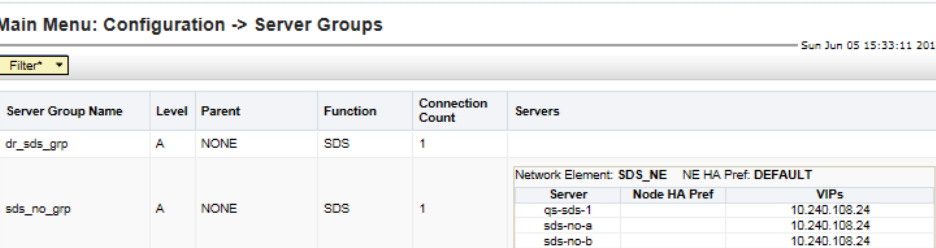
Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
<p>5.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) The user will be presented with the “Server Groups” configuration screen as shown on the right.</p> <p>2) Select the “Insert” dialogue button from the bottom left corner of the screen.</p>	
<p>6.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The user will be presented with the “Server Groups [Insert]” screen as shown on the right.</p> <p>NOTE: Leave the “WAN Replication Connection Count” blank (it will default to 1).</p>	

Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result															
<p>7.</p> <input type="checkbox"/>	<p>Primary SDS VIP: Input the Server Group Name.</p>	<table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name *</td> <td>dr_sds_grp</td> <td>Unique identifier used Valid characters are a start with a digit.] [A v</td> </tr> </tbody> </table>	Field	Value	Description	Server Group Name *	dr_sds_grp	Unique identifier used Valid characters are a start with a digit.] [A v									
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<p>8.</p> <input type="checkbox"/>	<p>Primary SDS VIP: Select “A” on the “Level” pull-down menu.</p>	<table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Level *</td> <td>- Select Level - A B C</td> <td>Select one of the Levels supported by the s contain SOAM servers. Level C groups con</td> </tr> </tbody> </table>	Field	Value	Description	Level *	- Select Level - A B C	Select one of the Levels supported by the s contain SOAM servers. Level C groups con									
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<p>9.</p> <input type="checkbox"/>	<p>Primary SDS VIP: Select Parent “NONE” on the pull-down menu.</p>	<table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Parent *</td> <td>- Select Parent- NONE</td> <td>Select an existing Server Group or NONE [A value is required.]</td> </tr> </tbody> </table>	Field	Value	Description	Parent *	- Select Parent- NONE	Select an existing Server Group or NONE [A value is required.]									
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Parent *	- Select Parent- NONE	Select an existing Server Group or NONE [A value is required.]															
<p>10.</p> <input type="checkbox"/>	<p>Primary SDS VIP: Select “SDS” on the “Function” pull-down menu.</p>	<table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Function *</td> <td>- Select Function - NONE SDS</td> <td>Select one of the Functions supported by the system [A value is required.]</td> </tr> </tbody> </table>	Field	Value	Description	Function *	- Select Function - NONE SDS	Select one of the Functions supported by the system [A value is required.]									
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Function *	- Select Function - NONE SDS	Select one of the Functions supported by the system [A value is required.]															
<p>11.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Select the “Apply” dialogue button.</p>	 <p>Main Menu: Configuration -> Server Groups [Insert]</p> <p>Info</p> <p>Info</p> <ul style="list-style-type: none"> Pre-Validation passed - Data NOT committed ... <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name *</td> <td>dr_sds_grp</td> <td>Unique identifier used to Valid characters are alp start with a digit.] [A val</td> </tr> <tr> <td>Parent *</td> <td>NONE</td> <td>Sele</td> </tr> <tr> <td>Function *</td> <td>SDS</td> <td>Sele</td> </tr> <tr> <td>WAN Replication Connection Count</td> <td>1</td> <td>Spe assc</td> </tr> </tbody> </table> <p>Ok Apply Cancel</p>	Field	Value	Description	Server Group Name *	dr_sds_grp	Unique identifier used to Valid characters are alp start with a digit.] [A val	Parent *	NONE	Sele	Function *	SDS	Sele	WAN Replication Connection Count	1	Spe assc
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Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result																														
<p>12.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The user should be presented with a banner information message stating “Data committed”.</p>	 <p>Main Menu: Configuration -> Server Groups [Insert]</p> <p>Info* [dropdown]</p> <p>Info [dropdown]</p> <p>i • Data committed!</p> <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name *</td> <td>dr_sds_grp</td> <td>Unique identifi Valid characte start with a dig</td> </tr> </tbody> </table>	Field	Value	Description	Server Group Name *	dr_sds_grp	Unique identifi Valid characte start with a dig																								
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<p>13.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu → Configuration → Server Groups</p> <p>...as shown on the right.</p>	 <p>Main Menu: Main Menu -> Server Groups</p> <p>Filter* [dropdown]</p> <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>dr_sds_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> </tr> <tr> <td>sds_no_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> </tr> </tbody> </table>	Server Group Name	Level	Parent	Function	dr_sds_grp	A	NONE	SDS	sds_no_grp	A	NONE	SDS																		
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dr_sds_grp	A	NONE	SDS																													
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<p>14.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The Server Group entry should be shown on the “Server Groups” configuration screen as shown on the right.</p>	 <p>Main Menu: Configuration -> Server Groups</p> <p>Filter* [dropdown]</p> <p>Sun Jun 05 15:33:11 201</p> <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Connection Count</th> <th>Servers</th> </tr> </thead> <tbody> <tr> <td>dr_sds_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>1</td> <td></td> </tr> <tr> <td>sds_no_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>1</td> <td></td> </tr> </tbody> </table> <p>Network Element: SDS_NE NE HA Pref: DEFAULT</p> <table border="1"> <thead> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>qs-sds-1</td> <td></td> <td>10.240.108.24</td> </tr> <tr> <td>sds-no-a</td> <td></td> <td>10.240.108.24</td> </tr> <tr> <td>sds-no-b</td> <td></td> <td>10.240.108.24</td> </tr> </tbody> </table>	Server Group Name	Level	Parent	Function	Connection Count	Servers	dr_sds_grp	A	NONE	SDS	1		sds_no_grp	A	NONE	SDS	1		Server	Node HA Pref	VIPs	qs-sds-1		10.240.108.24	sds-no-a		10.240.108.24	sds-no-b		10.240.108.24
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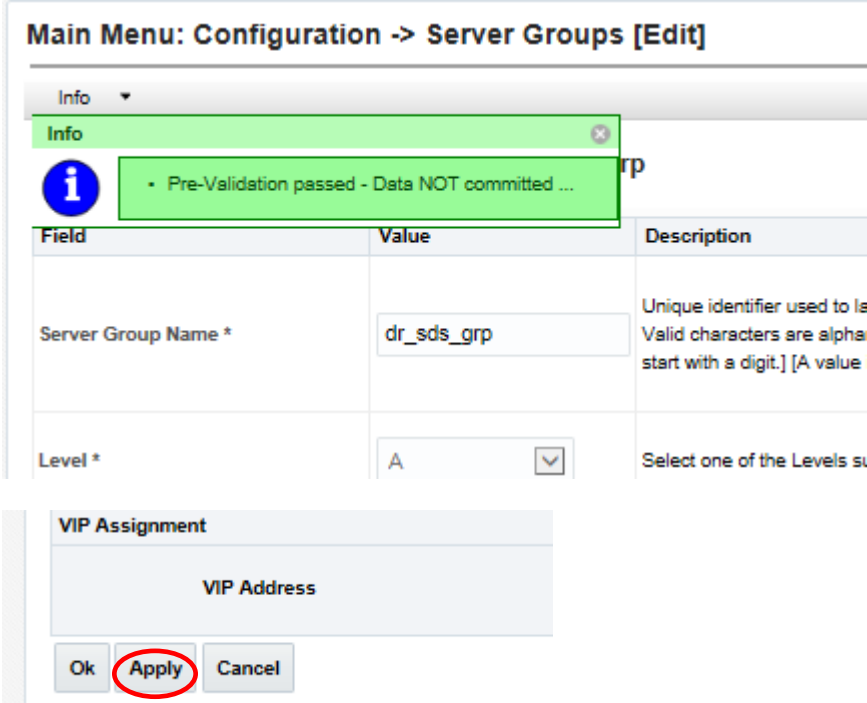
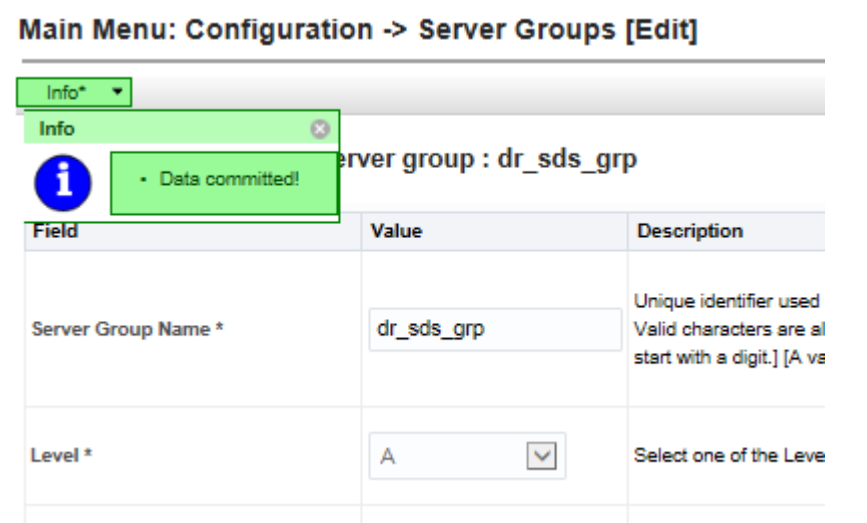
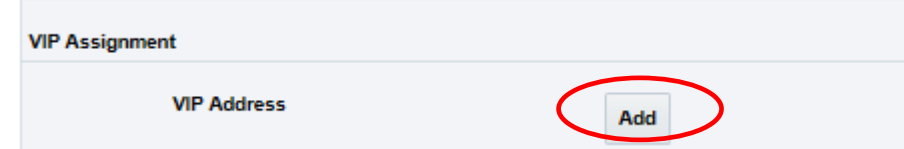
Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result																																																						
<p>15.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 10px;"></div>	<p>Primary SDS VIP:</p> <p>1) Select the Server Group entry applied in Step 12. The line entry should now be highlighted in.</p> <p>2) Select the “Edit” dialogue button from the bottom left corner of the screen.</p>	<p>Main Menu: Configuration -> Server Groups</p> <p>Sun Jun 05 15:33:11 2016 ET</p> <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Connection Count</th> <th>Servers</th> </tr> </thead> <tbody> <tr style="background-color: #e0f0ff;"> <td>dr_sds_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>1</td> <td></td> </tr> <tr> <td>sdt_no_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>1</td> <td></td> </tr> <tr style="background-color: #e0f0ff;"> <td>sf_sds_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>1</td> <td></td> </tr> <tr> <td>sds_no_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>1</td> <td></td> </tr> </tbody> </table> <p>Network Element: SDS_NE NE HA Pref: DEFAULT</p> <table border="1"> <thead> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>sds-no-1</td> <td></td> <td>10.240.108.24</td> </tr> <tr> <td>sds-no-a</td> <td></td> <td>10.240.108.24</td> </tr> <tr> <td>sds-no-b</td> <td></td> <td>10.240.108.24</td> </tr> </tbody> </table> <p>Network Element: SDS_NE NE HA Pref: DEFAULT</p> <table border="1"> <thead> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>sds-no-1</td> <td></td> <td>10.240.108.24</td> </tr> <tr> <td>sds-no-a</td> <td></td> <td>10.240.108.24</td> </tr> <tr> <td>sds-no-b</td> <td></td> <td>10.240.108.24</td> </tr> </tbody> </table> <p>Buttons: Insert Edit Delete Report</p>	Server Group Name	Level	Parent	Function	Connection Count	Servers	dr_sds_grp	A	NONE	SDS	1		sdt_no_grp	A	NONE	SDS	1		sf_sds_grp	A	NONE	SDS	1		sds_no_grp	A	NONE	SDS	1		Server	Node HA Pref	VIPs	sds-no-1		10.240.108.24	sds-no-a		10.240.108.24	sds-no-b		10.240.108.24	Server	Node HA Pref	VIPs	sds-no-1		10.240.108.24	sds-no-a		10.240.108.24	sds-no-b		10.240.108.24
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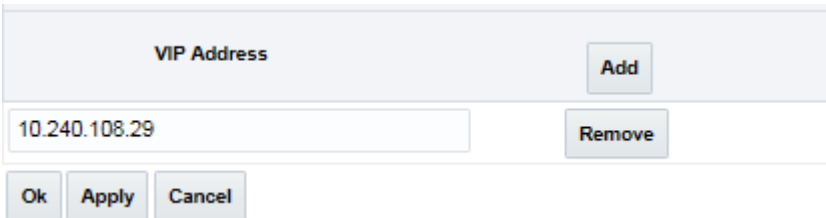
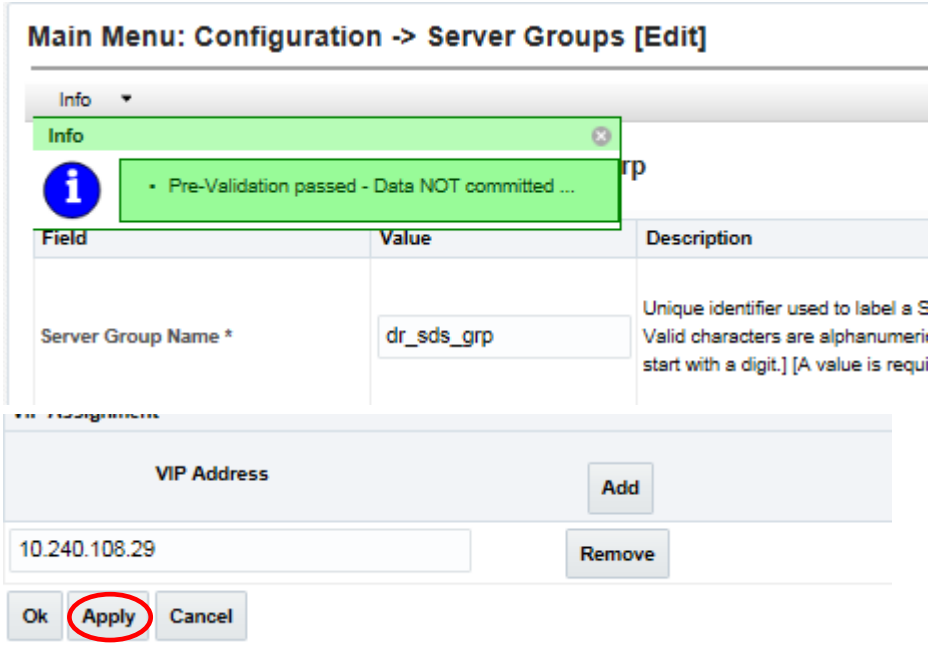
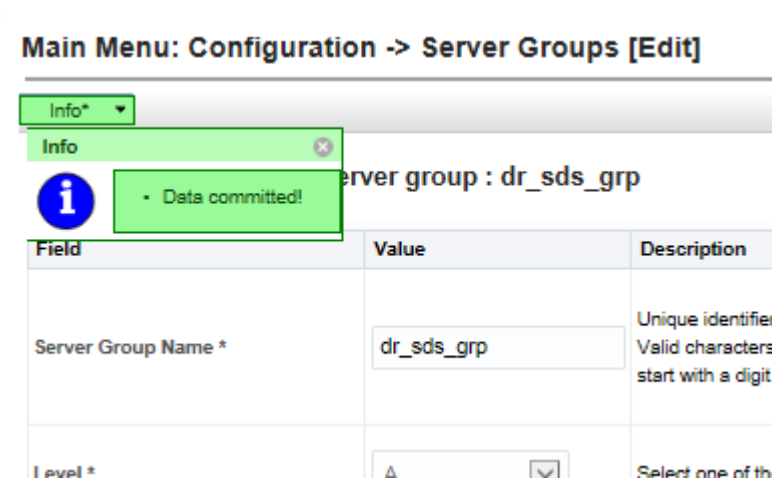
Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result																		
<p>16.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The user will be presented with the “Server Groups [Edit]” screen as shown on the right.</p>	<p>Main Menu: Configuration -> Server Groups [Edit]</p> <hr/> <p>Modifying attributes of server group : dr_sds_grp</p> <table border="1"> <tr> <td>Level *</td> <td>A <input type="button" value="v"/></td> <td>Select one of the Levels supp</td> </tr> <tr> <td>Parent *</td> <td>NONE <input type="button" value="v"/></td> <td>Select an existing Server Grou</td> </tr> <tr> <td>Function *</td> <td>SDS <input type="button" value="v"/></td> <td>Select one of the Functions su</td> </tr> <tr> <td>WAN Replication Connection Count</td> <td>1 <input type="text"/></td> <td>Specify the number of TCP co associated with this Server Gn</td> </tr> </table> <p>SDS_NE <input type="checkbox"/> Prefer Network Element as spare</p> <table border="1"> <thead> <tr> <th>Server</th> <th>SG Inclusion</th> <th>Preferred HA Role</th> </tr> </thead> <tbody> <tr> <td>dr-sds-no-a</td> <td><input type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Prefer server as spare</td> </tr> </tbody> </table> <p>VIP Assignment</p> <p>VIP Address <input type="text"/> <input type="button" value="Add"/></p> <p><input type="button" value="Ok"/> <input type="button" value="Apply"/> <input type="button" value="Cancel"/></p>	Level *	A <input type="button" value="v"/>	Select one of the Levels supp	Parent *	NONE <input type="button" value="v"/>	Select an existing Server Grou	Function *	SDS <input type="button" value="v"/>	Select one of the Functions su	WAN Replication Connection Count	1 <input type="text"/>	Specify the number of TCP co associated with this Server Gn	Server	SG Inclusion	Preferred HA Role	dr-sds-no-a	<input type="checkbox"/> Include in SG	<input type="checkbox"/> Prefer server as spare
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<p>17.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>Select the “A” server and the “B” server from the list of “Servers” by clicking the check box next to their names.</p>	<table border="1"> <thead> <tr> <th>Server</th> <th>SG Inclusion</th> <th>Preferred HA Role</th> </tr> </thead> <tbody> <tr> <td>dr-sds-no-a</td> <td><input checked="" type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Prefer server as spare</td> </tr> </tbody> </table>	Server	SG Inclusion	Preferred HA Role	dr-sds-no-a	<input checked="" type="checkbox"/> Include in SG	<input type="checkbox"/> Prefer server as spare												
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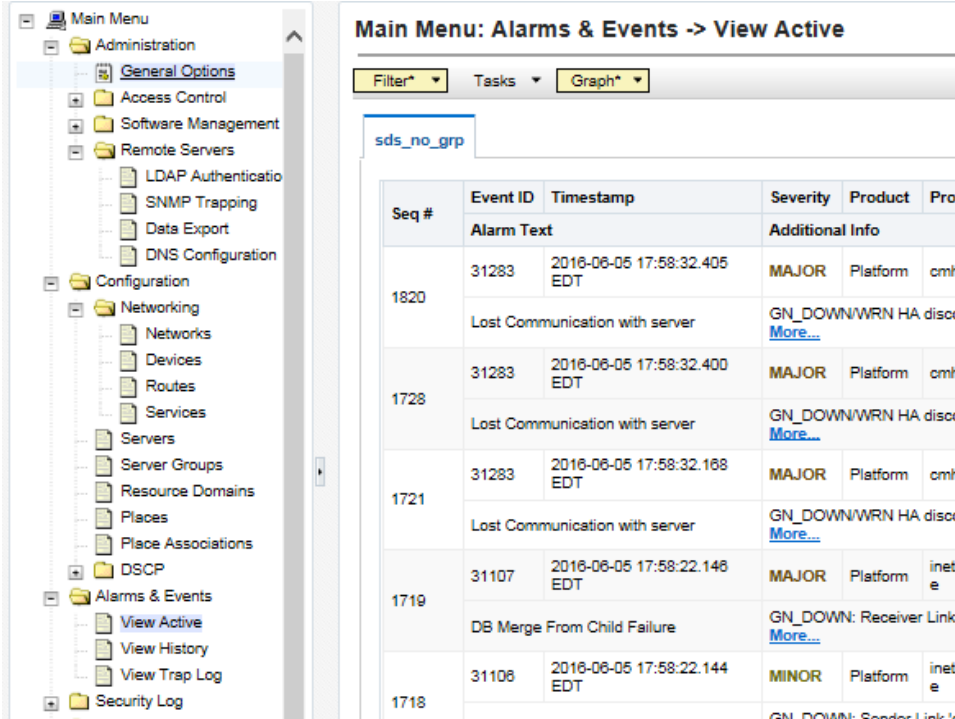
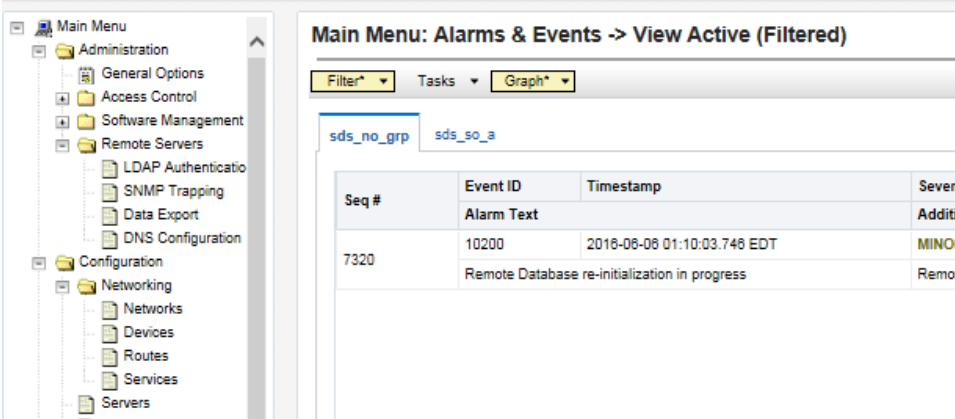

Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result									
<p>18.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Select the “Apply” dialogue button.</p>	 <p>Main Menu: Configuration -> Server Groups [Edit]</p> <p>Info</p> <p>Info</p> <p>• Pre-Validation passed - Data NOT committed ...</p> <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name *</td> <td>dr_sds_grp</td> <td>Unique identifier used to identify the server group. Valid characters are alphanumeric and start with a digit. [A value of length 1-32 is allowed.]</td> </tr> <tr> <td>Level *</td> <td>A</td> <td>Select one of the Levels supported by the system.</td> </tr> </tbody> </table> <p>VIP Assignment</p> <p>VIP Address</p> <p>Ok Apply Cancel</p>	Field	Value	Description	Server Group Name *	dr_sds_grp	Unique identifier used to identify the server group. Valid characters are alphanumeric and start with a digit. [A value of length 1-32 is allowed.]	Level *	A	Select one of the Levels supported by the system.
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<p>19.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>The user should be presented with a banner information message stating “Data committed”.</p>	 <p>Main Menu: Configuration -> Server Groups [Edit]</p> <p>Info*</p> <p>Info</p> <p>• Data committed!</p> <p>Server group : dr_sds_grp</p> <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name *</td> <td>dr_sds_grp</td> <td>Unique identifier used to identify the server group. Valid characters are alphanumeric and start with a digit. [A value of length 1-32 is allowed.]</td> </tr> <tr> <td>Level *</td> <td>A</td> <td>Select one of the Levels supported by the system.</td> </tr> </tbody> </table>	Field	Value	Description	Server Group Name *	dr_sds_grp	Unique identifier used to identify the server group. Valid characters are alphanumeric and start with a digit. [A value of length 1-32 is allowed.]	Level *	A	Select one of the Levels supported by the system.
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<p>20.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>Click the “Add” dialogue button for the VIP Address.</p>	 <p>VIP Assignment</p> <p>VIP Address</p> <p>Add</p>									

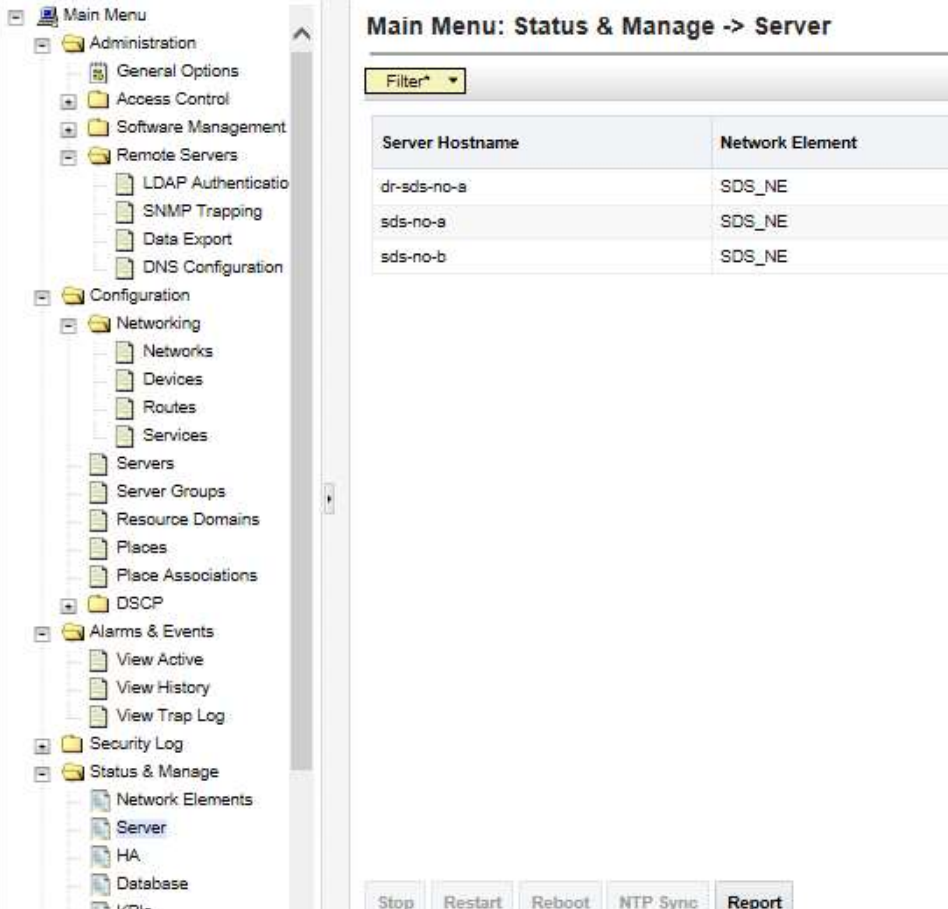
Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
<p>21.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>Input the VIP Address</p>	
<p>22.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Select the “Apply” dialogue button.</p>	
<p>23.</p> <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>The user should be presented with a banner information message stating “Data committed”.</p>	

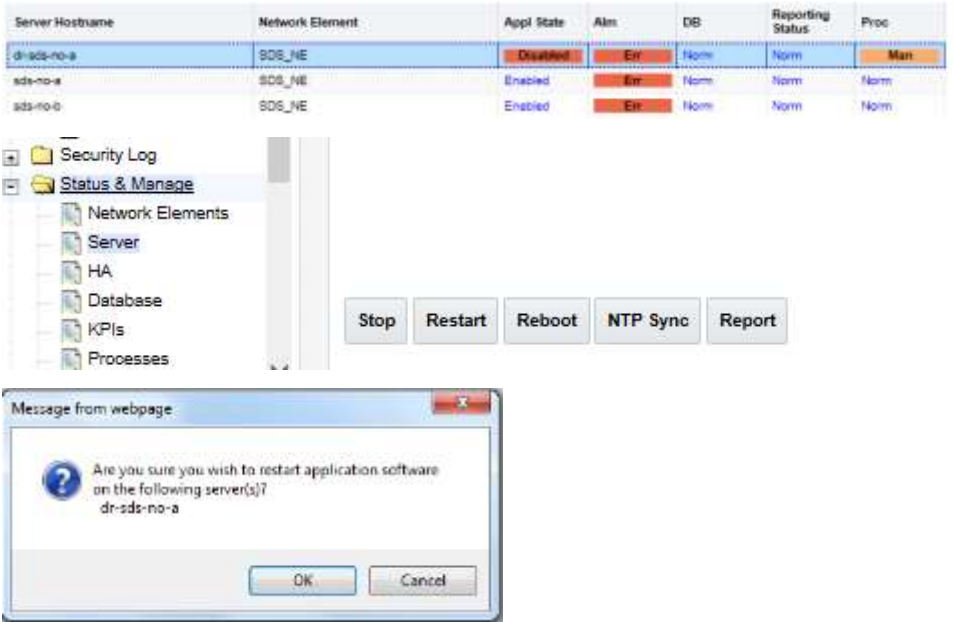
Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result																																																													
24.	<p>Primary SDS NOAM VIP:</p> <p>Select...</p> <p>Main Menu → Alarms & Events → View Active</p> <p>...as shown on the right.</p>	 <table border="1"> <thead> <tr> <th>Seq #</th> <th>Event ID</th> <th>Timestamp</th> <th>Severity</th> <th>Product</th> <th>Pro</th> </tr> </thead> <tbody> <tr> <td rowspan="2">1820</td> <td>31283</td> <td>2016-06-05 17:58:32.405 EDT</td> <td>MAJOR</td> <td>Platform</td> <td>cmh</td> </tr> <tr> <td colspan="2">Lost Communication with server</td> <td colspan="3">GN_DOWN/WRN HA disc More...</td> </tr> <tr> <td rowspan="2">1728</td> <td>31283</td> <td>2016-06-05 17:58:32.400 EDT</td> <td>MAJOR</td> <td>Platform</td> <td>cmh</td> </tr> <tr> <td colspan="2">Lost Communication with server</td> <td colspan="3">GN_DOWN/WRN HA disc More...</td> </tr> <tr> <td rowspan="2">1721</td> <td>31283</td> <td>2016-06-05 17:58:32.168 EDT</td> <td>MAJOR</td> <td>Platform</td> <td>cmh</td> </tr> <tr> <td colspan="2">Lost Communication with server</td> <td colspan="3">GN_DOWN/WRN HA disc More...</td> </tr> <tr> <td rowspan="2">1719</td> <td>31107</td> <td>2016-06-05 17:58:22.146 EDT</td> <td>MAJOR</td> <td>Platform</td> <td>inetr e</td> </tr> <tr> <td colspan="2">DB Merge From Child Failure</td> <td colspan="3">GN_DOWN: Receiver Link More...</td> </tr> <tr> <td rowspan="2">1718</td> <td>31106</td> <td>2016-06-05 17:58:22.144 EDT</td> <td>MINOR</td> <td>Platform</td> <td>inetr e</td> </tr> <tr> <td colspan="2"></td> <td colspan="3">GN_DOWN: Sender Link's</td> </tr> </tbody> </table>	Seq #	Event ID	Timestamp	Severity	Product	Pro	1820	31283	2016-06-05 17:58:32.405 EDT	MAJOR	Platform	cmh	Lost Communication with server		GN_DOWN/WRN HA disc More...			1728	31283	2016-06-05 17:58:32.400 EDT	MAJOR	Platform	cmh	Lost Communication with server		GN_DOWN/WRN HA disc More...			1721	31283	2016-06-05 17:58:32.168 EDT	MAJOR	Platform	cmh	Lost Communication with server		GN_DOWN/WRN HA disc More...			1719	31107	2016-06-05 17:58:22.146 EDT	MAJOR	Platform	inetr e	DB Merge From Child Failure		GN_DOWN: Receiver Link More...			1718	31106	2016-06-05 17:58:22.144 EDT	MINOR	Platform	inetr e			GN_DOWN: Sender Link's		
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			GN_DOWN: Sender Link's																																																												
25.	<p>Primary SDS NOAM VIP:</p> <p>Verify that Event ID 10200 (<i>Remote Database re-initialization in progress</i>) alarms are present with the DR SDS NOAM Server hostnames in the "Instance" field..</p>	 <table border="1"> <thead> <tr> <th>Seq #</th> <th>Event ID</th> <th>Timestamp</th> <th>Severity</th> <th>Additional</th> </tr> </thead> <tbody> <tr> <td rowspan="2">7320</td> <td>10200</td> <td>2016-06-06 01:10:03.746 EDT</td> <td>MINOR</td> <td>Remote</td> </tr> <tr> <td colspan="2">Remote Database re-initialization in progress</td> <td colspan="2"></td> </tr> </tbody> </table>	Seq #	Event ID	Timestamp	Severity	Additional	7320	10200	2016-06-06 01:10:03.746 EDT	MINOR	Remote	Remote Database re-initialization in progress																																																		
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		<p>MONITOR THE EVENT ID 10200 (<i>Remote Database re-initialization in progress</i>) ALARMS.</p> <p>DO NOT PROCEED TO THE NEXT STEP UNTIL THE ALARM CLEAR IS RECEIVED FOR BOTH DR SDS NOAM SERVERS.</p>																																																													

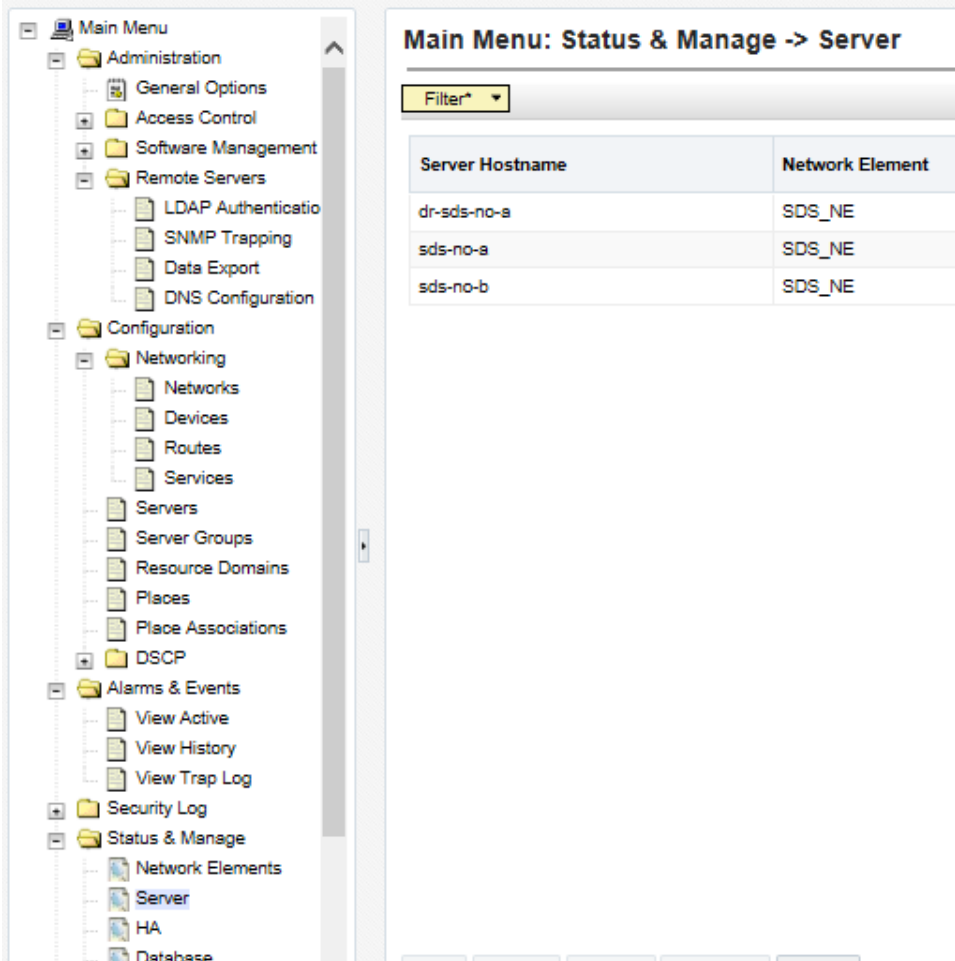

Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result																												
<p>26.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>Select...</p> <p>Main Menu → Status & Manage → Server</p> <p>...as shown on the right.</p>	 <p>Main Menu: Status & Manage -> Server</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> </tr> </thead> <tbody> <tr> <td>dr-sds-no-a</td> <td>SDS_NE</td> </tr> <tr> <td>sds-no-a</td> <td>SDS_NE</td> </tr> <tr> <td>sds-no-b</td> <td>SDS_NE</td> </tr> </tbody> </table>	Server Hostname	Network Element	dr-sds-no-a	SDS_NE	sds-no-a	SDS_NE	sds-no-b	SDS_NE																				
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<p>27.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>1) The “A” and “B” DR SDS servers should now appear in the right panel.</p> <p>2) Verify that the “DB” status shows “Norm” and the “Proc” status shows “Man” for both servers before proceeding to the next Step.</p>	<table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>dr-sds-no-a</td> <td>SDS_NE</td> <td>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>sds-no-a</td> <td>SDS_NE</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-no-b</td> <td>SDS_NE</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table>	Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc	dr-sds-no-a	SDS_NE	Disabled	Err	Norm	Norm	Man	sds-no-a	SDS_NE	Enabled	Err	Norm	Norm	Norm	sds-no-b	SDS_NE	Enabled	Err	Norm	Norm	Norm
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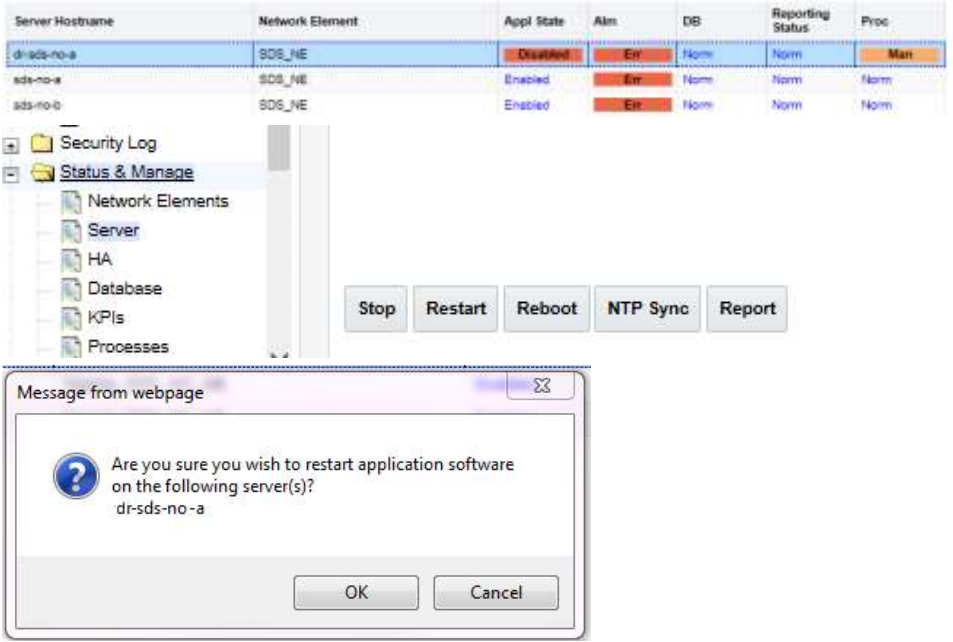
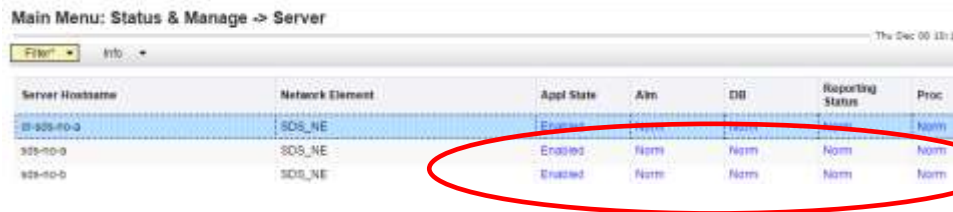
Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result																																								
<p>28.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>1) Using the mouse, select DR SDS NOAM Server A. The line entry should now be highlighted in.</p> <p>2) Select the “Restart” dialogue button from the bottom left corner of the screen.</p> <p>3) Click the “OK” button on the confirmation dialogue box.</p> <p>4) The user should be presented with a confirmation message (in the banner area) for DR SDS NOAM Server A stating: “Successfully restarted application”.</p>	 <p>The screenshot shows a table of server status:</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>dr-sds-no-a</td> <td>SDS_NE</td> <td>Disabled</td> <td>Err</td> <td>None</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>sds-no-a</td> <td>SDS_NE</td> <td>Enabled</td> <td>Err</td> <td>None</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-no-b</td> <td>SDS_NE</td> <td>Enabled</td> <td>Err</td> <td>None</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table> <p>Below the table is a navigation tree with 'Status & Manage' selected, and buttons for 'Stop', 'Restart', 'Reboot', 'NTP Sync', and 'Report'. A dialog box asks: 'Are you sure you wish to restart application software on the following server(s)? dr-sds-no-a'. Buttons 'OK' and 'Cancel' are visible.</p> <p>Main Menu: Status & Manage -> Server</p> <p>Below this is another table with a green info box overlaid:</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> </tr> </thead> <tbody> <tr> <td>dr-sds-no-a</td> <td>SDS_NE</td> <td>Enabled</td> </tr> <tr> <td>sds-no-a</td> <td>SDS_NE</td> <td>Enabled</td> </tr> <tr> <td>sds-no-b</td> <td>SDS_NE</td> <td>Enabled</td> </tr> </tbody> </table> <p>The green info box contains: 'Info - dr-sds-no-a: Successfully restarted application.'</p>	Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc	dr-sds-no-a	SDS_NE	Disabled	Err	None	Norm	Man	sds-no-a	SDS_NE	Enabled	Err	None	Norm	Norm	sds-no-b	SDS_NE	Enabled	Err	None	Norm	Norm	Server Hostname	Network Element	Appl State	dr-sds-no-a	SDS_NE	Enabled	sds-no-a	SDS_NE	Enabled	sds-no-b	SDS_NE	Enabled
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Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result																												
<p>29.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>Select...</p> <p>Main Menu → Status & Manage → Server</p> <p>...as shown on the right.</p>	 <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> </tr> </thead> <tbody> <tr> <td>dr-sds-no-a</td> <td>SDS_NE</td> </tr> <tr> <td>sds-no-a</td> <td>SDS_NE</td> </tr> <tr> <td>sds-no-b</td> <td>SDS_NE</td> </tr> </tbody> </table>	Server Hostname	Network Element	dr-sds-no-a	SDS_NE	sds-no-a	SDS_NE	sds-no-b	SDS_NE																				
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sds-no-a	SDS_NE																													
sds-no-b	SDS_NE																													
<p>30.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>Verify that the “Appl State” now shows “Enabled” and that the “Alm, DB, Reporting Status & Proc” status columns all show “Norm” for NOAM Server A before proceeding to the next Step.</p>	 <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>dr-sds-no-a</td> <td>SDS_NE</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-no-a</td> <td>SDS_NE</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-no-b</td> <td>SDS_NE</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table>	Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc	dr-sds-no-a	SDS_NE	Enabled	Err	Norm	Norm	Norm	sds-no-a	SDS_NE	Enabled	Err	Norm	Norm	Norm	sds-no-b	SDS_NE	Enabled	Err	Norm	Norm	Norm
Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc																								
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Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
<p>31.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>1) Using the mouse, select DR NOAM Server B. The line entry should now be highlighted in.</p> <p>2) Select the “Restart” dialogue button from the bottom left corner of the screen.</p> <p>3) Click the “OK” button on the confirmation dialogue box.</p> <p>4) The user should be presented with a confirmation message (in the banner area) for SDS DR NOAM Server B stating: “Successfully restarted application”.</p>	 <p>The screenshot shows a table of server status with columns: Server Hostname, Network Element, Appl State, Alm, DB, Reporting Status, and Proc. The row for 'dr-sds-no-a' is highlighted. Below the table are buttons for Stop, Restart, Reboot, NTP Sync, and Report. A dialog box asks: 'Are you sure you wish to restart application software on the following server(s)? dr-sds-no-a'. Below this is another screenshot of the 'Main Menu: Status & Manage -> Server' page with an info message: 'dr-sds-no-a: Successfully restarted application.'</p>
<p>32.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Verify that the “Appl State” now shows “Enabled” and that the “Alm, DB, Reporting Status & Proc” status columns all show “Norm” for NOAM Server A and NOAM Server B before proceeding to the next Step.</p>	 <p>The screenshot shows the same table as in step 31. The 'Appl State' column for 'dr-sds-no-a' is now 'Enabled', and the 'Alm', 'DB', 'Reporting Status', and 'Proc' columns for all three servers are 'Norm'. A red circle highlights the 'Enabled' and 'Norm' values.</p>
<p>33.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Add the Query Server for the DR SDS Server</p>	<ul style="list-style-type: none"> Repeat all steps listed in Procedure 4 except use the DR SDS NOAM NE and Server Group instead of the Primary SDS NOAM NE (1st SDS NOAM site) and Server Group.
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>		

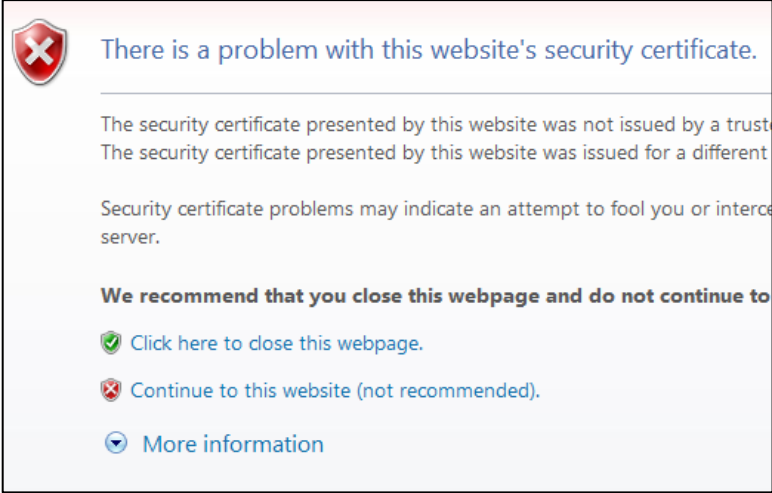

5.6 Add SDS software images to PMAC servers (All SOAM sites)

This procedure must be done once for each DSR signaling site, which is also an SDS SOAM site. This procedure assumes that the PMAC server has already been installed, as described in [4]

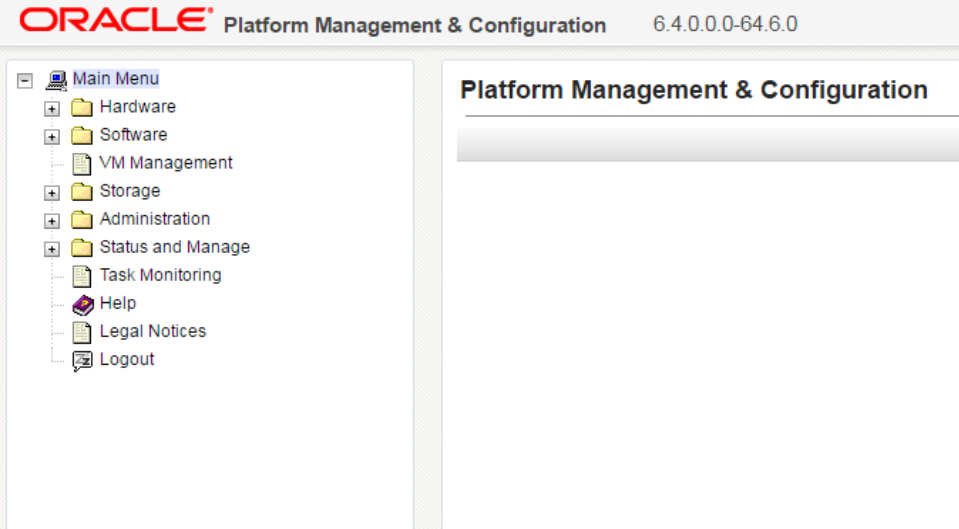
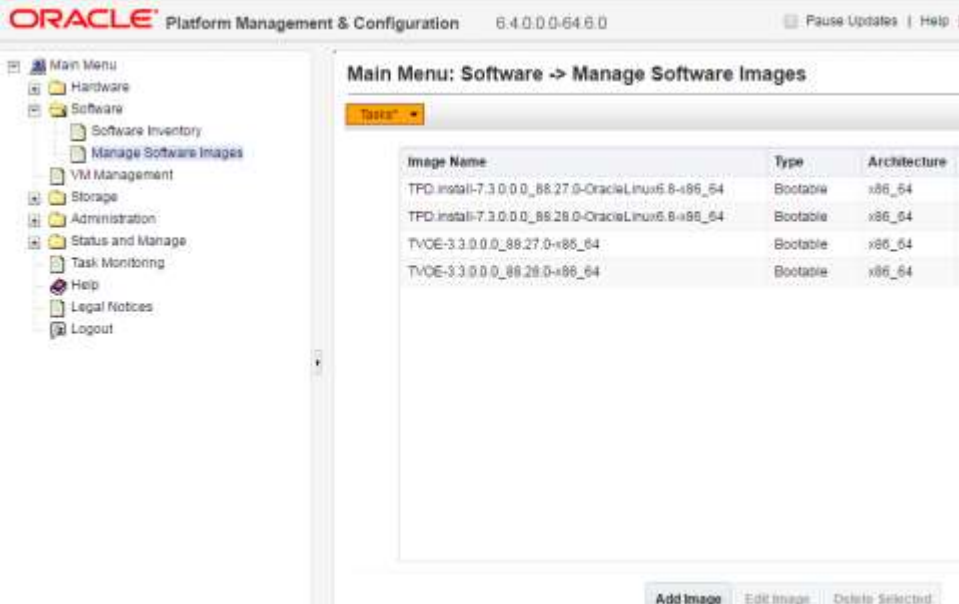
Procedure 7: Add SDS software images to PMAC servers for DSR signaling sites

Step	Procedure	Result
	Active SDS VIP (CLI): 1) Access the command prompt. 2) Log into the HP server as the “admusr” user.	login: <code>admusr</code> Using keyboard-interactive authentication. Password: <code><admusr_password></code> \$
	Active SDS VIP (CLI): “cd” into the /var/TKLC/upgrade/ directory.	\$ <code>cd /var/TKLC/upgrade/</code> \$
	Active SDS VIP (CLI): Verify that the SDS ISO file is present.	\$ <code>ls</code> SDS-8.5.0.0.0_90.11.0.iso \$
	Active SDS VIP (CLI): “sftp” the SDS ISO file to the PMAC Server as shown to the right..	\$ <code>sftp pmacftpusr@<PMAC_Mgmt_IP_address>:/var/TKLC/upgrade/</code> Password: <code><admusr_password></code> Changing to: /var/TKLC/upgrade sftp> put SDS-8.5.0.0.0_90.11.0.iso Uploading SDS-8.5.0.0.0_90.11.0.iso to /var/TKLC/upgrade/SDS-8.5.0.0.0_90.11.0.iso SDS-8.5.0.0.0_90.11.0.iso 100% 853MB 53.3MB/s 00:16 \$SDS-8.5.0.0.0_90.11.0.iso 100% 853MB 53.3MB/s 00:16 \$ Note:- As ISO has been transferred to PMAC server. ISO can be removed from /var/TKLC/upgrade directory from this server.

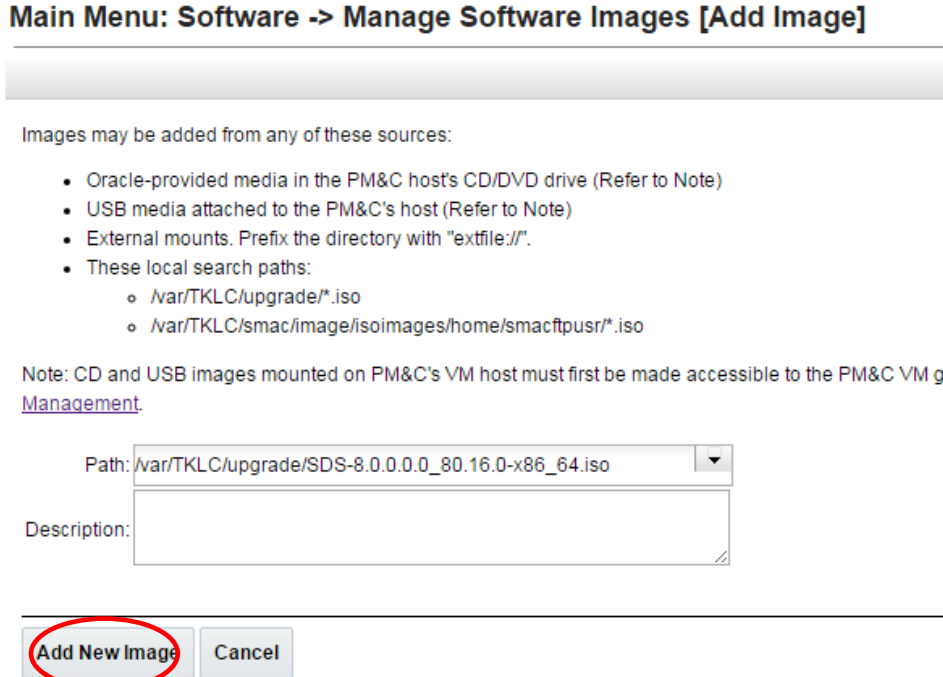
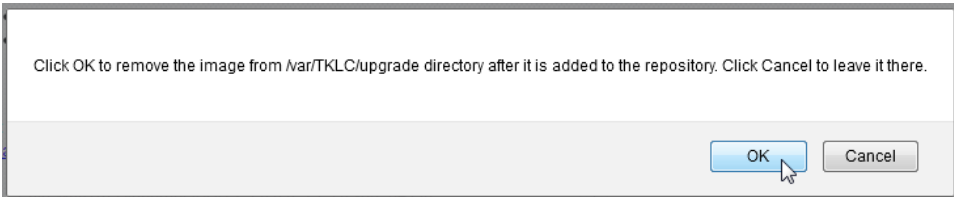
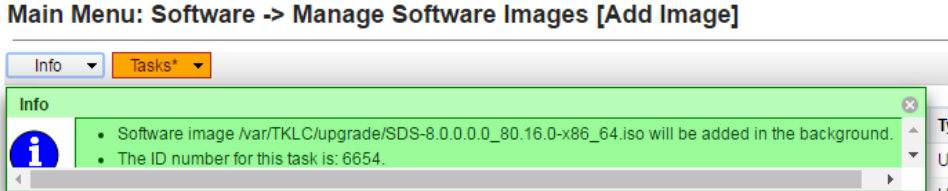
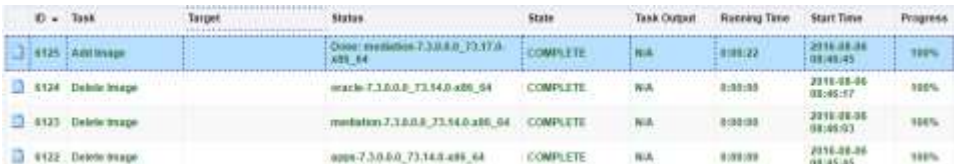
Procedure 7: Add SDS software images to PMAC servers for DSR signaling sites

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

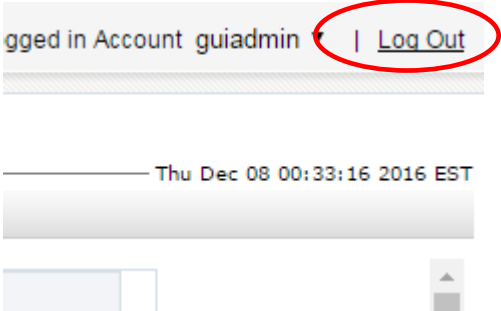
Procedure 7: Add SDS software images to PMAC servers for DSR signaling sites

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

Procedure 7: Add SDS software images to PMAC servers for DSR signaling sites

Step	Procedure	Result																																													
<input type="checkbox"/>	<p>PMAC Server GUI:</p> <p>1) Click the “Path:” pull-down menu and select the SDS ISO file from the /var/TKLC/upgrade directory.</p> <p>2) Add a comment if desired in the Description field.</p> <p>3) Click the “Add New Image” dialogue button.</p>	 <p>Main Menu: Software -> Manage Software Images [Add Image]</p> <p>Images may be added from any of these sources:</p> <ul style="list-style-type: none"> • Oracle-provided media in the PM&C host's CD/DVD drive (Refer to Note) • USB media attached to the PM&C's host (Refer to Note) • External mounts. Prefix the directory with "extfile://". • These local search paths: <ul style="list-style-type: none"> ◦ /var/TKLC/upgrade/*.iso ◦ /var/TKLC/smac/image/isoimages/home/smacftpusr/*.iso <p>Note: CD and USB images mounted on PM&C's VM host must first be made accessible to the PM&C VM g Management.</p> <p>Path: /var/TKLC/upgrade/SDS-8.0.0.0.0_80.16.0-x86_64.iso</p> <p>Description:</p> <p>Add New Image Cancel</p>																																													
	<p>PMAC Server GUI:</p> <p>Click the “OK” button on the confirmation dialogue box to remove the source image after it has been successfully added to the SW Inventory.</p>	 <p>Click OK to remove the image from /var/TKLC/upgrade directory after it is added to the repository. Click Cancel to leave it there.</p> <p>OK Cancel</p>																																													
<input type="checkbox"/>	<p>PMAC Server GUI:</p> <p>An info message will be raised to show a new background task.</p>	 <p>Main Menu: Software -> Manage Software Images [Add Image]</p> <p>Info Tasks*</p> <p>Info</p> <ul style="list-style-type: none"> • Software image /var/TKLC/upgrade/SDS-8.0.0.0.0_80.16.0-x86_64.iso will be added in the background. • The ID number for this task is: 6654. 																																													
<input type="checkbox"/>	<p>PMAC Server GUI:</p> <p>Watch the extraction progress in the lower task list on the same page.</p>	 <table border="1"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> <th>Status</th> <th>State</th> <th>Task Output</th> <th>Running Time</th> <th>Start Time</th> <th>Progress</th> </tr> </thead> <tbody> <tr> <td>6125</td> <td>Add Image</td> <td>sdsc-7.3.0.0.0_73.14.0-x86_64</td> <td>Done: installation.7.3.0.0.0_73.14.0-x86_64</td> <td>COMPLETE</td> <td>N/A</td> <td>0:00:22</td> <td>2016-08-26 08:46:43</td> <td>100%</td> </tr> <tr> <td>6124</td> <td>Delete Image</td> <td>sdsc-7.3.0.0.0_73.14.0-x86_64</td> <td>sdsc-7.3.0.0.0_73.14.0-x86_64</td> <td>COMPLETE</td> <td>N/A</td> <td>0:00:00</td> <td>2016-08-26 08:46:57</td> <td>100%</td> </tr> <tr> <td>6123</td> <td>Delete Image</td> <td>sdsc-7.3.0.0.0_73.14.0-x86_64</td> <td>mediation.7.3.0.0.0_73.14.0-x86_64</td> <td>COMPLETE</td> <td>N/A</td> <td>0:00:00</td> <td>2016-08-26 08:46:53</td> <td>100%</td> </tr> <tr> <td>6122</td> <td>Delete Image</td> <td>sdsc-7.3.0.0.0_73.14.0-x86_64</td> <td>sdsc-7.3.0.0.0_73.14.0-x86_64</td> <td>COMPLETE</td> <td>N/A</td> <td>0:00:00</td> <td>2016-08-26 08:46:45</td> <td>100%</td> </tr> </tbody> </table>	ID	Task	Target	Status	State	Task Output	Running Time	Start Time	Progress	6125	Add Image	sdsc-7.3.0.0.0_73.14.0-x86_64	Done: installation.7.3.0.0.0_73.14.0-x86_64	COMPLETE	N/A	0:00:22	2016-08-26 08:46:43	100%	6124	Delete Image	sdsc-7.3.0.0.0_73.14.0-x86_64	sdsc-7.3.0.0.0_73.14.0-x86_64	COMPLETE	N/A	0:00:00	2016-08-26 08:46:57	100%	6123	Delete Image	sdsc-7.3.0.0.0_73.14.0-x86_64	mediation.7.3.0.0.0_73.14.0-x86_64	COMPLETE	N/A	0:00:00	2016-08-26 08:46:53	100%	6122	Delete Image	sdsc-7.3.0.0.0_73.14.0-x86_64	sdsc-7.3.0.0.0_73.14.0-x86_64	COMPLETE	N/A	0:00:00	2016-08-26 08:46:45	100%
ID	Task	Target	Status	State	Task Output	Running Time	Start Time	Progress																																							
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6124	Delete Image	sdsc-7.3.0.0.0_73.14.0-x86_64	sdsc-7.3.0.0.0_73.14.0-x86_64	COMPLETE	N/A	0:00:00	2016-08-26 08:46:57	100%																																							
6123	Delete Image	sdsc-7.3.0.0.0_73.14.0-x86_64	mediation.7.3.0.0.0_73.14.0-x86_64	COMPLETE	N/A	0:00:00	2016-08-26 08:46:53	100%																																							
6122	Delete Image	sdsc-7.3.0.0.0_73.14.0-x86_64	sdsc-7.3.0.0.0_73.14.0-x86_64	COMPLETE	N/A	0:00:00	2016-08-26 08:46:45	100%																																							

Procedure 7: Add SDS software images to PMAC servers for DSR signaling sites

Step	Procedure	Result																												
<input type="checkbox"/>	<p>PMAC Server GUI:</p> <p>When the extraction task is complete, a new software image will be displayed.</p>	<table border="1"> <thead> <tr> <th>Image Name</th> <th>Type</th> <th>Architecture</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>oracle-7.4.0.0.0_74.3.0-x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td></td> </tr> <tr> <td>oracleGuest-8.0.0.0.0_80.8.0-x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td></td> </tr> <tr style="background-color: #e0f0ff;"> <td>SDS-8.0.0.0.0_80.16.0-x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td></td> </tr> <tr> <td>TPD.install-7.0.3.0.0_86.46.0-OracleLinux6.7-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td></td> </tr> <tr> <td>TPD.install-7.3.0.0.0_88.28.0-OracleLinux6.8-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td></td> </tr> <tr> <td>TPD.install-7.4.0.0.0_88.30.0-OracleLinux6.8-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td></td> </tr> </tbody> </table>	Image Name	Type	Architecture	Description	oracle-7.4.0.0.0_74.3.0-x86_64	Upgrade	x86_64		oracleGuest-8.0.0.0.0_80.8.0-x86_64	Upgrade	x86_64		SDS-8.0.0.0.0_80.16.0-x86_64	Upgrade	x86_64		TPD.install-7.0.3.0.0_86.46.0-OracleLinux6.7-x86_64	Bootable	x86_64		TPD.install-7.3.0.0.0_88.28.0-OracleLinux6.8-x86_64	Bootable	x86_64		TPD.install-7.4.0.0.0_88.30.0-OracleLinux6.8-x86_64	Bootable	x86_64	
Image Name	Type	Architecture	Description																											
oracle-7.4.0.0.0_74.3.0-x86_64	Upgrade	x86_64																												
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SDS-8.0.0.0.0_80.16.0-x86_64	Upgrade	x86_64																												
TPD.install-7.0.3.0.0_86.46.0-OracleLinux6.7-x86_64	Bootable	x86_64																												
TPD.install-7.3.0.0.0_88.28.0-OracleLinux6.8-x86_64	Bootable	x86_64																												
TPD.install-7.4.0.0.0_88.30.0-OracleLinux6.8-x86_64	Bootable	x86_64																												
<input type="checkbox"/>	<p>PMAC Server GUI:</p> <p>Click the “Logout” link on the PMAC server GUI.</p>																													
	<p>PMACServer GUI: Load TPD ISO</p>	<p>If the TPD ISO hasn't been loaded onto the PMAC already, Add the TPD ISO image to the PM&C, this can be done in one of three ways:</p> <ol style="list-style-type: none"> 1. Insert the Application CD required by the application into the removable media drive. 2. Attach the USB device containing the ISO image to a USB port. 3. Copy the Application iso file to the PM&C server into the “/var/TKLC/smac/image/isoimages/home/smacftpusr/” directory as pmacftpusr user: <p>cd into the directory where your ISO image is located on the TVOE Host (not on the PM&C server)</p> <p>Using sftp, connect to the PM&C server</p> <pre>\$ sftp pmacftpusr@<pmac_management_network_ip> \$ put <image>.iso</pre> <p>After the image transfer is 100% complete, close the connection:</p> <pre>\$ quit</pre>																												
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>																														

5.7 OAM Installation for SOAM sites (All SOAM sites)

Assumptions:

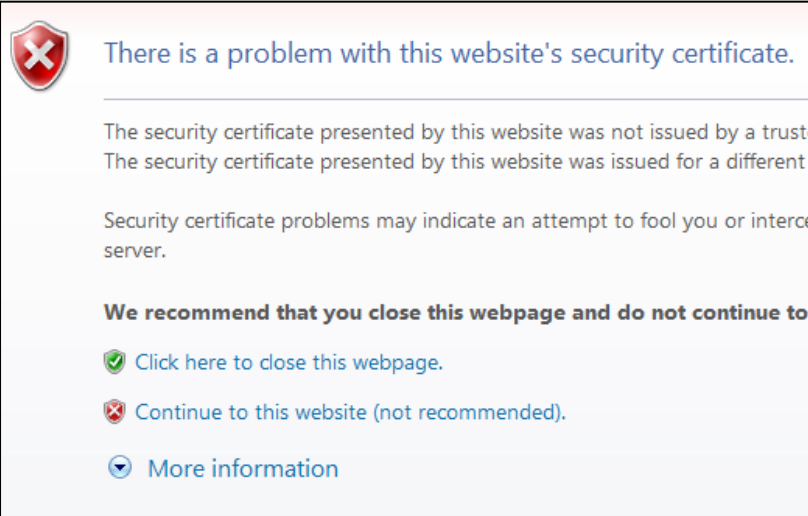
- This procedure assumes that the SOAM Network Element XML file for the SOAM site has previously been created, as described in Appendix E.
- This procedure assumes that the Network Element XML files are either on a USB flash drive or the laptop’s hard drive. The steps are written as if the XML files are on a USB flash drive, but the files can exist on any accessible drive.

This procedure is for installing the SOAM software on the OAM server blades located at each DSR Signaling Site. The SOAM and DSR OAM servers run in 2 virtual machines on the same HP C-Class blade.



This procedure assumes that the DSR 8.2 or later OAM has already been installed in a virtual environment on the server blade, as described in as described in [4].

This assumption also implies that the PMAC server has been installed and that TVOE has been installed in the OAM server blades. This procedure also assumes that the SDS software image has already been added to the PMAC server, as described in section 5.6.

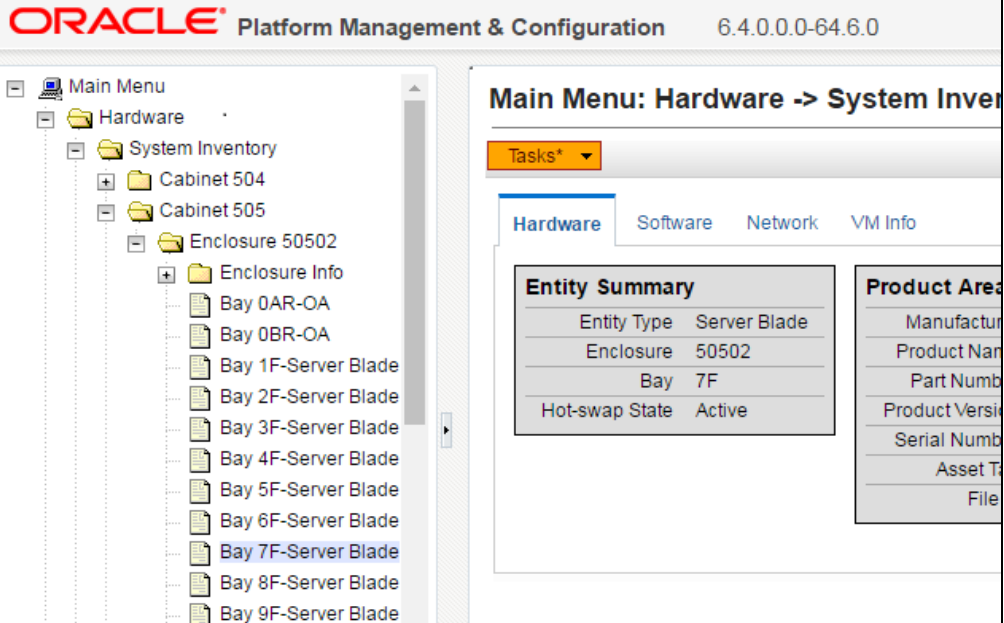


Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<input type="checkbox"/>	<p>PMAC Server GUI:</p> <p>Launch an approved web browser and connect to the Mgmt IP Address of the PMAC server at the SOAM site</p> <p><i>NOTE: If presented with the “security certificate” warning screen shown to the right, choose the following option: “Continue to this website (not recommended)”.</i></p>	

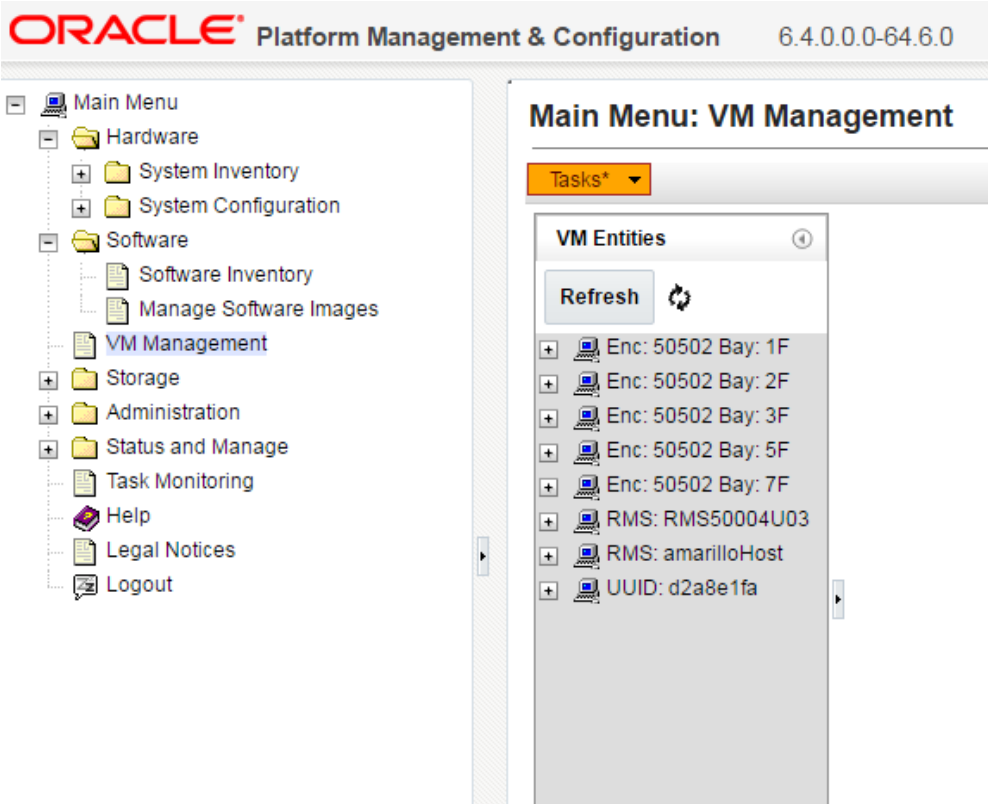
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

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

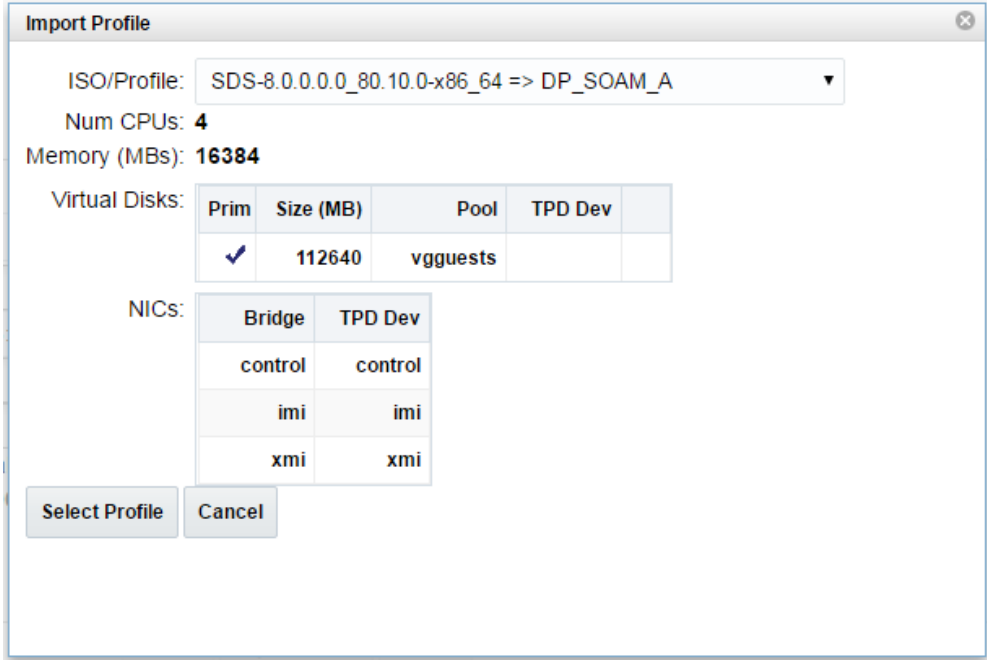
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result																
<input type="checkbox"/>	<p>PMAC Server GUI: Select desired OAM server blade...</p> <p><u>Main Menu</u> → Hardware → System Inventory → <Enclosure> → <Server Blade></p> <p>...as shown on the right.</p>	 <p>Entity Summary</p> <table border="1"> <tr> <td>Entity Type</td> <td>Server Blade</td> </tr> <tr> <td>Enclosure</td> <td>50502</td> </tr> <tr> <td>Bay</td> <td>7F</td> </tr> <tr> <td>Hot-swap State</td> <td>Active</td> </tr> </table>	Entity Type	Server Blade	Enclosure	50502	Bay	7F	Hot-swap State	Active								
Entity Type	Server Blade																	
Enclosure	50502																	
Bay	7F																	
Hot-swap State	Active																	
<input type="checkbox"/>	<p>PMAC Server GUI: Select the Software tab.</p> <p>...as shown on the right.</p> <p>Verify that TVOE application has been installed.</p>	 <p>Operating System Details</p> <table border="1"> <tr> <td>Operating System</td> <td>Red Hat Enterprise Linux Server</td> </tr> <tr> <td>Operating System Version</td> <td>6.8</td> </tr> <tr> <td>Platform Software</td> <td>TPD (i86_64)</td> </tr> <tr> <td>Platform Version</td> <td>7.3.0.0-08.26.0</td> </tr> <tr> <td>Upgrade State</td> <td>Not in Upgrade</td> </tr> </table> <p>Application Details</p> <table border="1"> <tr> <td>Application</td> <td>TVOE</td> </tr> <tr> <td>Version</td> <td>3.3.0.0_88.28.0</td> </tr> <tr> <td>Function</td> <td>Designation</td> </tr> </table>	Operating System	Red Hat Enterprise Linux Server	Operating System Version	6.8	Platform Software	TPD (i86_64)	Platform Version	7.3.0.0-08.26.0	Upgrade State	Not in Upgrade	Application	TVOE	Version	3.3.0.0_88.28.0	Function	Designation
Operating System	Red Hat Enterprise Linux Server																	
Operating System Version	6.8																	
Platform Software	TPD (i86_64)																	
Platform Version	7.3.0.0-08.26.0																	
Upgrade State	Not in Upgrade																	
Application	TVOE																	
Version	3.3.0.0_88.28.0																	
Function	Designation																	
<div style="display: flex; align-items: center;">  <p>IF TVOE WAS NOT INSTALLED OR IS THE INCORRECT VERSION ON THE BLADE SERVER, STOP AND EXECUTE THE FOLLOWING STEPS:</p> </div>																		

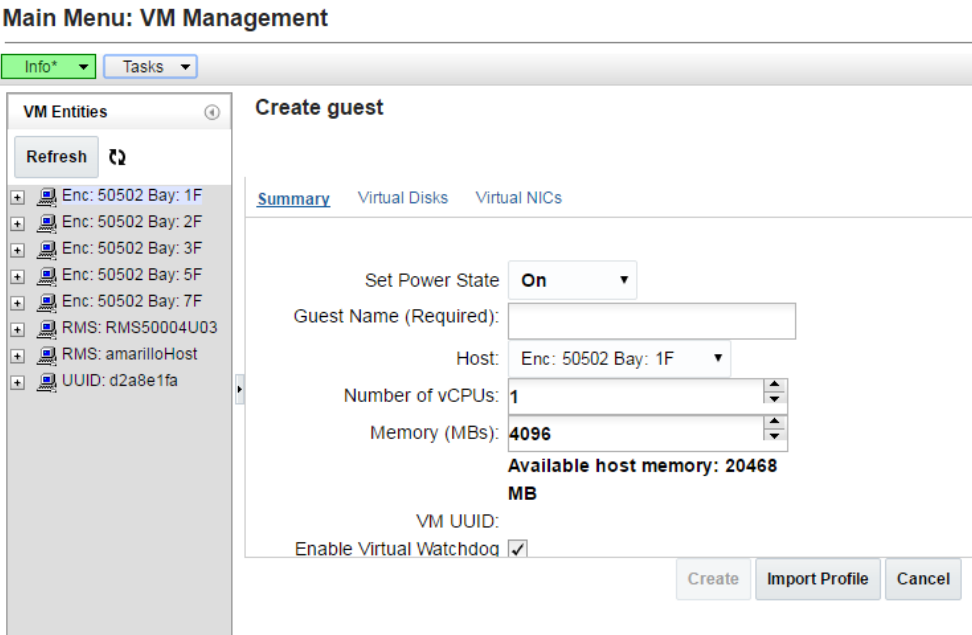
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
	<ol style="list-style-type: none"> 1) Verify that the enclosure and bay number are correct. 2) Refer [2] for TVOE Installation or Contact DSR Installation Engineer to confirm location of OAM blade and status of TVOE installation. 3) Restart this procedure. <p>IF TVOE WAS NOT INSTALLED OR IS THE INCORRECT VERSION ON THE BLADE SERVER, STOP AND EXECUTE THE FOLLOWING STEPS:</p> <p>NOTE: It is assumed that the TVOE version corresponds with the correct DSR and SDS installation guidelines, this can be checked by executing “appRev”.</p>	
<input type="checkbox"/>	<p>PMAC Server GUI: Select ...</p> <p><u>Main Menu</u> → VM Management</p> <p>...as shown on the right.</p>	 <p>The screenshot shows the Oracle Platform Management & Configuration interface. The main menu on the left includes categories like Hardware, Software, Storage, Administration, and Status and Manage. The 'VM Management' option is highlighted. The right-hand pane, titled 'Main Menu: VM Management', features a 'Tasks*' dropdown and a 'VM Entities' section with a 'Refresh' button. Below this, a list of VM entities is shown, including enclosures (50502 Bay: 1F through 7F), RMS (RMS50004U03 and amarilloHost), and a UUID (d2a8e1fa).</p>

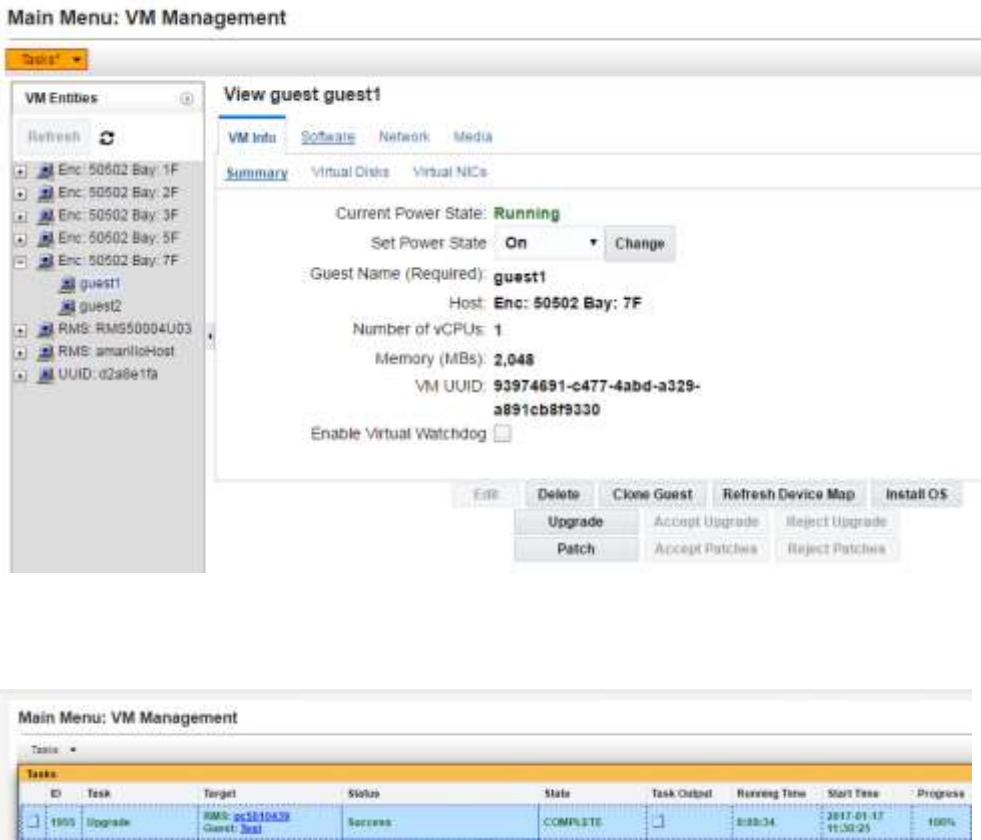
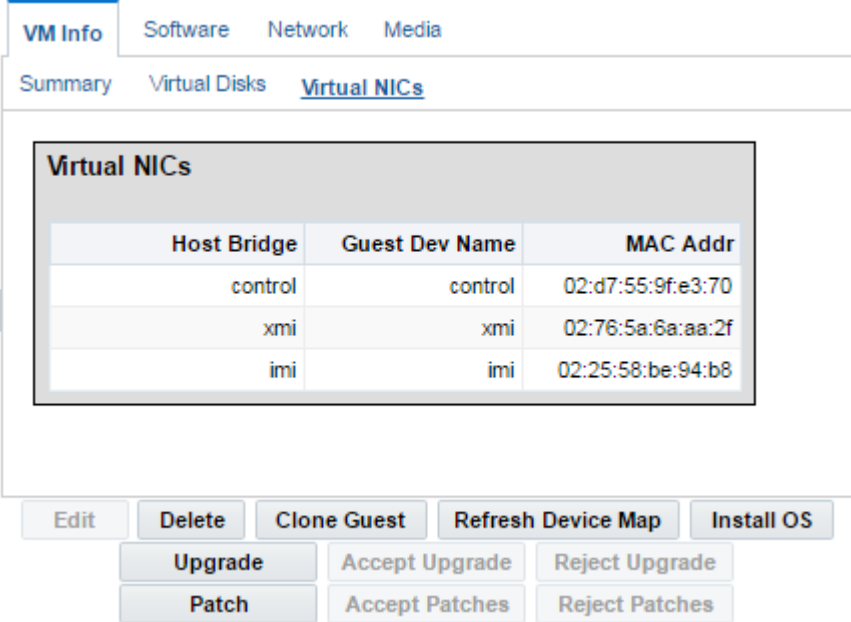
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result														
<input type="checkbox"/>	<p>PMAC Server GUI:</p> <p>1) Select the desired ISO/Profile value</p> <p>...as shown on the right.</p> <p>2) Click the "Select Profile" dialogue button</p>	<p>From the "ISO/Profile" drop-down box, select the entry that matches depending on the hardware that your SOAM VM TVOE server is running:</p> <table border="1"> <thead> <tr> <th>SDS Release</th> <th>TVOE HW Type (<i>BL460 Blade Server</i>)</th> <th>Role</th> <th>Choose Profile (<Application ISO NAME>)→</th> </tr> </thead> <tbody> <tr> <td rowspan="2">8.5</td> <td rowspan="2">Gen8/Gen9 Blade (if 1 Billion subscribers support is not needed)</td> <td>SOAM-A</td> <td>DP_SOAM_A</td> </tr> <tr> <td>SOAM-B</td> <td>DP_SOAM_B</td> </tr> <tr> <td>8.5</td> <td>Gen8/Gen9 Blade (if 1 Billion subscribers support is needed)</td> <td>SOAM-A SOAM-B</td> <td>DP_SOAM_1B_RE</td> </tr> </tbody> </table> <p>Note: Application_ISO_NAME is the name of the SDS Application ISO to be installed on this SOAM</p> 	SDS Release	TVOE HW Type (<i>BL460 Blade Server</i>)	Role	Choose Profile (<Application ISO NAME>) →	8.5	Gen8/Gen9 Blade (if 1 Billion subscribers support is not needed)	SOAM-A	DP_SOAM_A	SOAM-B	DP_SOAM_B	8.5	Gen8/Gen9 Blade (if 1 Billion subscribers support is needed)	SOAM-A SOAM-B	DP_SOAM_1B_RE
SDS Release	TVOE HW Type (<i>BL460 Blade Server</i>)	Role	Choose Profile (<Application ISO NAME>) →													
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		SOAM-B	DP_SOAM_B													
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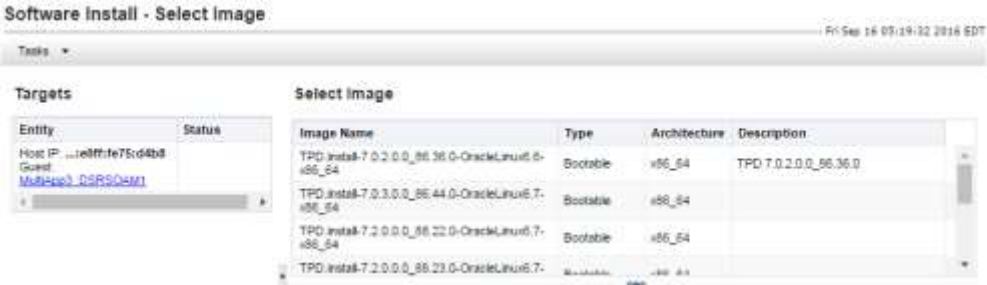
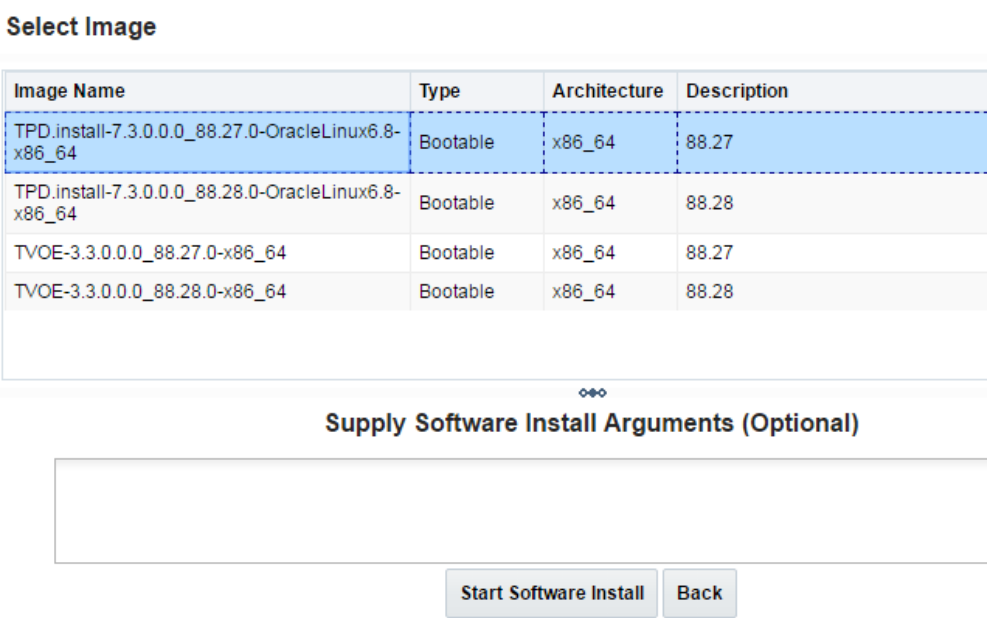
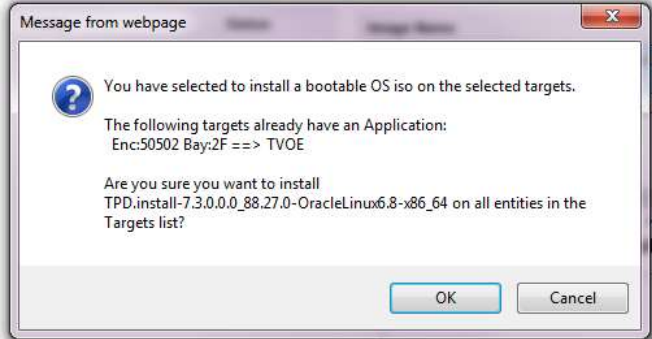
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<p><input type="checkbox"/></p>	<p>PMAC Server GUI:</p> <p>1) Overwrite the Name field with the Server host name (e.g.” so-mrsvnc-a”)</p> <p>2) Click the “Create” dialogue button</p>	 <p>Main Menu: VM Management</p> <p>Info* Tasks</p> <p>VM Entities</p> <p>Refresh</p> <ul style="list-style-type: none"> Enc: 50502 Bay: 1F Enc: 50502 Bay: 2F Enc: 50502 Bay: 3F Enc: 50502 Bay: 5F Enc: 50502 Bay: 7F RMS: RMS50004U03 RMS: amarilloHost UUID: d2a8e1fa <p>Create guest</p> <p>Summary Virtual Disks Virtual NICs</p> <p>Set Power State: On</p> <p>Guest Name (Required):</p> <p>Host: Enc: 50502 Bay: 1F</p> <p>Number of vCPUs: 1</p> <p>Memory (MBs): 4096</p> <p>Available host memory: 20468 MB</p> <p>VM UUID:</p> <p>Enable Virtual Watchdog <input checked="" type="checkbox"/></p> <p>Create Import Profile Cancel</p>


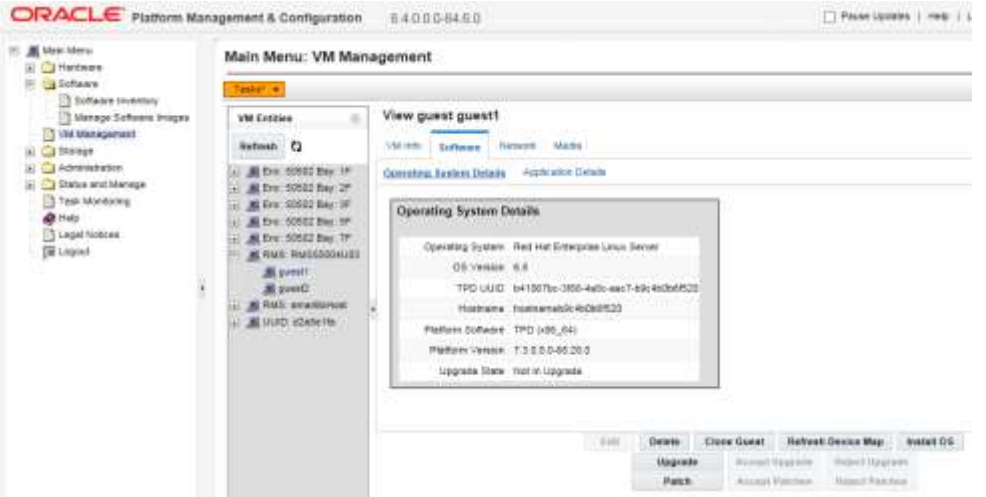
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result																		
<p>□</p>	<p>PMAC Server GUI: Verify that task successfully completes.</p> <p>The user should see a screen similar to the one on below with Progress value of 100%.</p> <p>"Using the "Tasks" tab, verify that the task completes successfully</p>	 <p>The screenshot shows the 'Main Menu: VM Management' interface. On the left, there is a 'VM Entities' list with a 'Refresh' button. The main area displays 'View guest guest1' with tabs for 'VM Info', 'Software', 'Network', and 'Media'. The 'Summary' tab is active, showing details for 'guest1' on host 'Enc: 50502 Bay: 7F', including power state (Running), vCPUs (1), and memory (2,048 MB). Below this are buttons for 'Edit', 'Delete', 'Clone Guest', 'Refresh Device Map', and 'Install OS', along with 'Upgrade', 'Patch', 'Accept Upgrade', and 'Reject Patches' options.</p> <p>Below the main view is a 'Tasks' table:</p> <table border="1"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> <th>Status</th> <th>State</th> <th>Task Output</th> <th>Running Time</th> <th>Start Time</th> <th>Progress</th> </tr> </thead> <tbody> <tr> <td>1900</td> <td>Upgrade</td> <td>RMS: pc3210439 Guest: guest1</td> <td>Success</td> <td>COMPLETE</td> <td></td> <td>0:00:34</td> <td>2017-01-17 11:30:25</td> <td>100%</td> </tr> </tbody> </table>	ID	Task	Target	Status	State	Task Output	Running Time	Start Time	Progress	1900	Upgrade	RMS: pc3210439 Guest: guest1	Success	COMPLETE		0:00:34	2017-01-17 11:30:25	100%
ID	Task	Target	Status	State	Task Output	Running Time	Start Time	Progress												
1900	Upgrade	RMS: pc3210439 Guest: guest1	Success	COMPLETE		0:00:34	2017-01-17 11:30:25	100%												
<p>□</p>	<p>PMAC Server GUI: Install the operating system by clicking the "Install OS" dialogue button</p>	 <p>The screenshot shows the 'Main Menu: VM Management' interface with the 'Virtual NICs' tab selected. It displays a table of virtual network interfaces:</p> <table border="1"> <thead> <tr> <th>Host Bridge</th> <th>Guest Dev Name</th> <th>MAC Addr</th> </tr> </thead> <tbody> <tr> <td>control</td> <td>control</td> <td>02:d7:55:9f:e3:70</td> </tr> <tr> <td>xmi</td> <td>xmi</td> <td>02:76:5a:6a:aa:2f</td> </tr> <tr> <td>imi</td> <td>imi</td> <td>02:25:58:be:94:b8</td> </tr> </tbody> </table> <p>Below the table are buttons for 'Edit', 'Delete', 'Clone Guest', 'Refresh Device Map', and 'Install OS', along with 'Upgrade', 'Patch', 'Accept Upgrade', and 'Reject Patches' options.</p>	Host Bridge	Guest Dev Name	MAC Addr	control	control	02:d7:55:9f:e3:70	xmi	xmi	02:76:5a:6a:aa:2f	imi	imi	02:25:58:be:94:b8						
Host Bridge	Guest Dev Name	MAC Addr																		
control	control	02:d7:55:9f:e3:70																		
xmi	xmi	02:76:5a:6a:aa:2f																		
imi	imi	02:25:58:be:94:b8																		

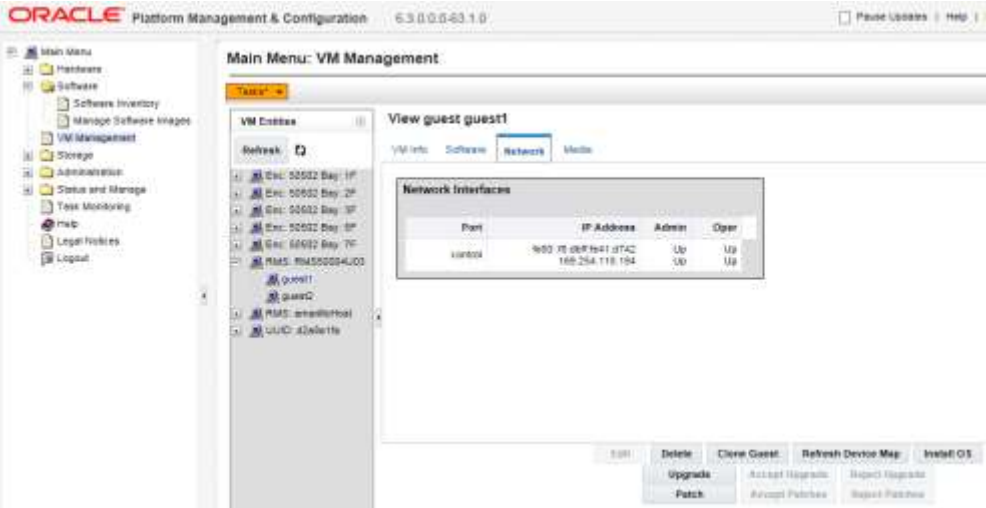
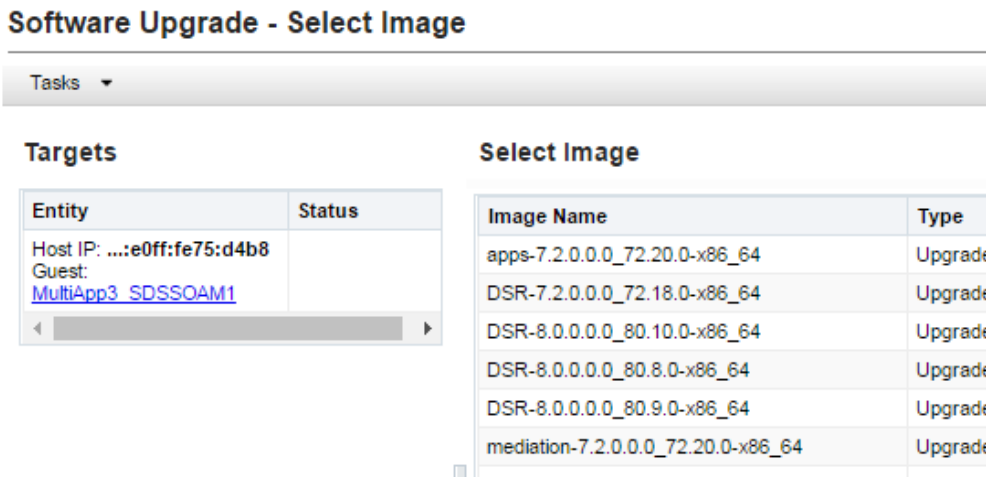
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<input type="checkbox"/>	<p>PMAC Server GUI: The user should see a screen similar to the one on the right.</p>	
<input type="checkbox"/>	<p>PMAC Server GUI: 1) Select the desired TPD Image 2) Click the “Start Install” dialogue button.</p>	
<input type="checkbox"/>	<p>PMAC Server GUI: The user should be presented with an “Are you sure you want to install” message box as shown on the right. Click the “OK” dialogue button.</p>	

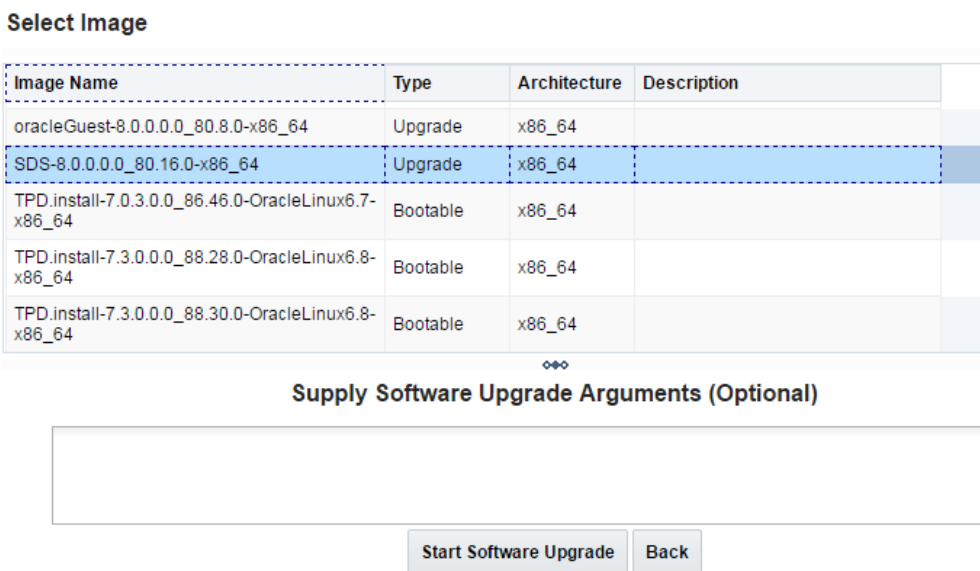
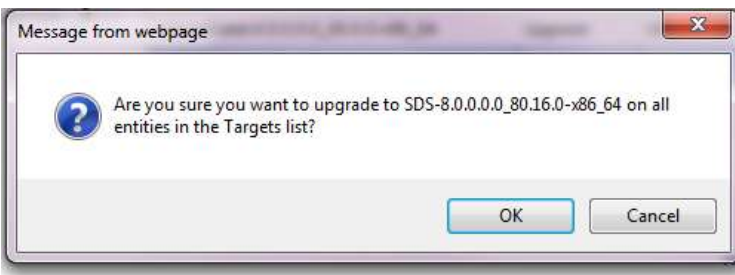

Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result																																																																								
<p><input type="checkbox"/></p>	<p>PMAC Server GUI:</p> <p>An installation task will be started. This task takes ~11 minutes. The user can monitor this task by doing the following:</p> <p>Select...</p> <p><u>Main Menu</u> → Task Monitoring</p> <p>Wait till Progress is 100% with a Status of Success and a State of Complete.</p>	 <table border="1"> <caption>Main Menu: Task Monitoring</caption> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> <th>Status</th> <th>State</th> <th>Task Output</th> <th>Running Time</th> <th>Start Time</th> <th>Progress</th> </tr> </thead> <tbody> <tr> <td>156</td> <td>Upgrade</td> <td>Em-5002 Bay 02 Guest guest1</td> <td>Success</td> <td>COMPLETE</td> <td></td> <td>0:04:43</td> <td>2019-09-26 12:14:45</td> <td>100%</td> </tr> <tr> <td>149</td> <td>Upgrade</td> <td>Em-5002 Bay 02 Guest guest1</td> <td>Success</td> <td>COMPLETE</td> <td></td> <td>0:04:26</td> <td>2019-09-26 12:14:34</td> <td>100%</td> </tr> <tr> <td>149</td> <td>Upgrade</td> <td>Em-5002 Bay 02 Guest guest1</td> <td>Success</td> <td>COMPLETE</td> <td></td> <td>0:04:40</td> <td>2019-09-26 12:14:25</td> <td>100%</td> </tr> <tr> <td>147</td> <td>Upgrade</td> <td>Em-5002 Bay 02 Guest guest1</td> <td>Success</td> <td>COMPLETE</td> <td></td> <td>0:04:12</td> <td>2019-09-26 12:14:15</td> <td>100%</td> </tr> <tr> <td>144</td> <td>Upgrade</td> <td>Em-5002 Bay 02 Guest guest1</td> <td>Success</td> <td>COMPLETE</td> <td></td> <td>0:06:31</td> <td>2019-09-26 12:14:05</td> <td>100%</td> </tr> <tr> <td>141</td> <td>Upgrade</td> <td>Em-5002 Bay 02 Guest guest1</td> <td>Success</td> <td>COMPLETE</td> <td></td> <td>0:04:37</td> <td>2019-09-26 12:13:51</td> <td>100%</td> </tr> <tr> <td>144</td> <td>Revert</td> <td>RMS: RMS60004103</td> <td>Success</td> <td>COMPLETE</td> <td></td> <td>0:03:21</td> <td>2019-09-26</td> <td>100%</td> </tr> </tbody> </table>	ID	Task	Target	Status	State	Task Output	Running Time	Start Time	Progress	156	Upgrade	Em-5002 Bay 02 Guest guest1	Success	COMPLETE		0:04:43	2019-09-26 12:14:45	100%	149	Upgrade	Em-5002 Bay 02 Guest guest1	Success	COMPLETE		0:04:26	2019-09-26 12:14:34	100%	149	Upgrade	Em-5002 Bay 02 Guest guest1	Success	COMPLETE		0:04:40	2019-09-26 12:14:25	100%	147	Upgrade	Em-5002 Bay 02 Guest guest1	Success	COMPLETE		0:04:12	2019-09-26 12:14:15	100%	144	Upgrade	Em-5002 Bay 02 Guest guest1	Success	COMPLETE		0:06:31	2019-09-26 12:14:05	100%	141	Upgrade	Em-5002 Bay 02 Guest guest1	Success	COMPLETE		0:04:37	2019-09-26 12:13:51	100%	144	Revert	RMS: RMS60004103	Success	COMPLETE		0:03:21	2019-09-26	100%
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144	Revert	RMS: RMS60004103	Success	COMPLETE		0:03:21	2019-09-26	100%																																																																		
<p><input type="checkbox"/></p>	<p>PMAC Server GUI:</p> <ol style="list-style-type: none"> 1. Select [Main Menu: VM Management]. 2. Under VM Entities column, expand (+) plus sign on the Host server containing the newly created VM Guest. 3. Select the VM Guest. 4. Select the "Software" tab. 5. Verify that the OS has been installed. 6. Click on the "Application Details" tab. 7. Verify that the "Application Details" table is blank. 	 <p>Operating System Details</p> <ul style="list-style-type: none"> Operating System: Red Hat Enterprise Linux Server OS Version: 6.8 TPD UUID: b41007c-3855-446c-eac7-4914c2b6f523 Hostname: hostname0c-4c2b6f523 Platform Software: TPD (x86_64) Platform Version: F.3.0.0.0-05.20.0 Upgrade State: Not in Upgrade 																																																																								

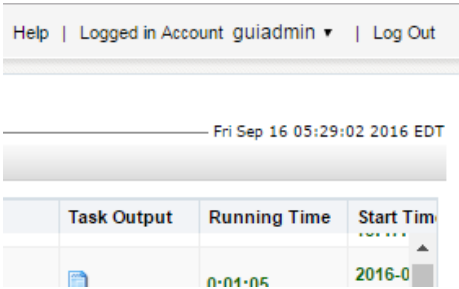
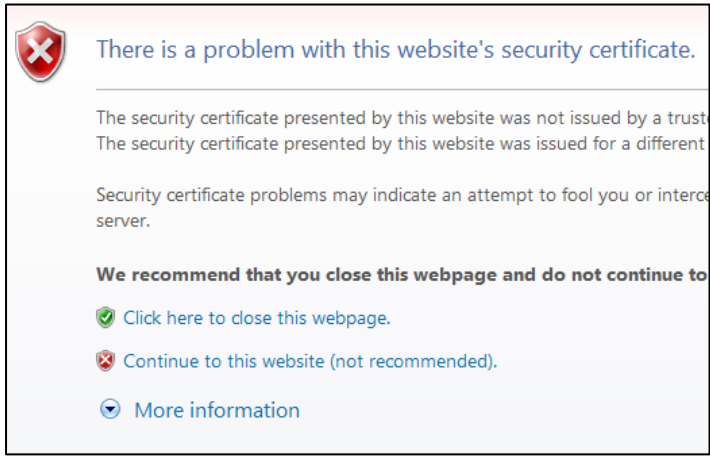
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<input type="checkbox"/>	<p>PMAC Server GUI:</p> <ol style="list-style-type: none"> 1) Select the “Network” tab 2) Record the control IP address for this SOAM VM; it will be referenced later. 3) Select the “Upgrade” dialogue button 	 <p>The screenshot shows the Oracle Platform Management & Configuration interface. The main menu is set to 'VM Management'. On the left, a navigation tree includes 'Main Menu', 'Hardware', 'Software', 'VM Management', 'Storage', 'Administration', 'Status and Manage', 'Task Monitoring', 'map', 'Legal Notices', and 'Logout'. The 'VM Management' section is active, displaying a list of VMs. A 'View guest guest1' window is open, showing the 'Network' tab. This window contains a 'Network Interfaces' table with columns for 'Port', 'IP Address', 'Admin', and 'Oper'. The 'control' port is listed with IP address '166.254.118.194'. Below the table are buttons for 'Delete', 'Clone Guest', 'Refresh Device Map', 'Install OS', 'Upgrade', 'Patch', 'Accept Upgrade', 'Reject Upgrade', 'Accept Patch', and 'Reject Patch'.</p>
<input type="checkbox"/>	<p>PMAC Server GUI:</p> <p>The user should be presented the Select Image screen as shown on the right</p>	 <p>The screenshot shows the 'Software Upgrade - Select Image' dialog. It features a 'Tasks' dropdown menu. Below it, there are two main sections: 'Targets' and 'Select Image'. The 'Targets' section contains a table with columns 'Entity' and 'Status'. The 'Entity' column lists 'Host IP:e0ff:fe75:d4b8' and 'Guest: MultiApp3_SDSSOAM1'. The 'Select Image' section contains a table with columns 'Image Name' and 'Type'. The 'Image Name' column lists several options: 'apps-7.2.0.0.0_72.20.0-x86_64', 'DSR-7.2.0.0.0_72.18.0-x86_64', 'DSR-8.0.0.0.0_80.10.0-x86_64', 'DSR-8.0.0.0.0_80.8.0-x86_64', 'DSR-8.0.0.0.0_80.9.0-x86_64', and 'mediation-7.2.0.0.0_72.20.0-x86_64'. The 'Type' column for all these images is 'Upgrade'.</p>




Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<input type="checkbox"/>	<p>PMAC Server GUI:</p> <p>1) Select the correct SDS version from the “Image Name” list. The line entry should now be highlighted.</p> <p>2) Select the “Start Upgrade” dialogue button</p>	
<input type="checkbox"/>	<p>PMAC Server GUI:</p> <p>The user should be presented with an “Are you sure you want to upgrade” message box</p> <p>....as shown on the right.</p> <p>Click the “OK” dialogue button.</p>	
<input type="checkbox"/>	<p>PMAC Server GUI:</p> <p>An upgrade task will be started. This task takes ~8 minutes. The user can monitor this task by doing the following:</p> <p>Select...</p> <p><u>Main Menu</u> → Task Monitoring</p> <p>Wait till Progress is 100% with a Status of Success and a State of Complete.</p>	




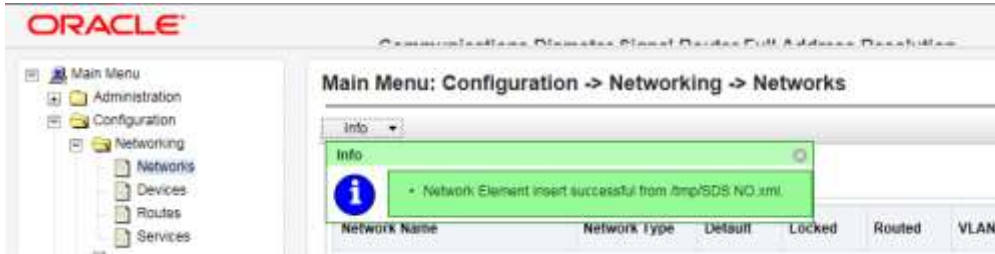
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<input type="checkbox"/>	Repeat Steps 4 - 22 of this procedure for the SOAM B Server.	
<input type="checkbox"/>	PMAC Server GUI: Click the “Logout” link on the PMAC server GUI.	
<input type="checkbox"/>	Primary SDS VIP: Launch an approved web browser and connect to the XMI Virtual IP address (VIP) assigned to Active SDS site NOTE: <i>If presented with the “security certificate” warning screen shown to the right, choose the following option: “Continue to this website (not recommended)”.</i>	

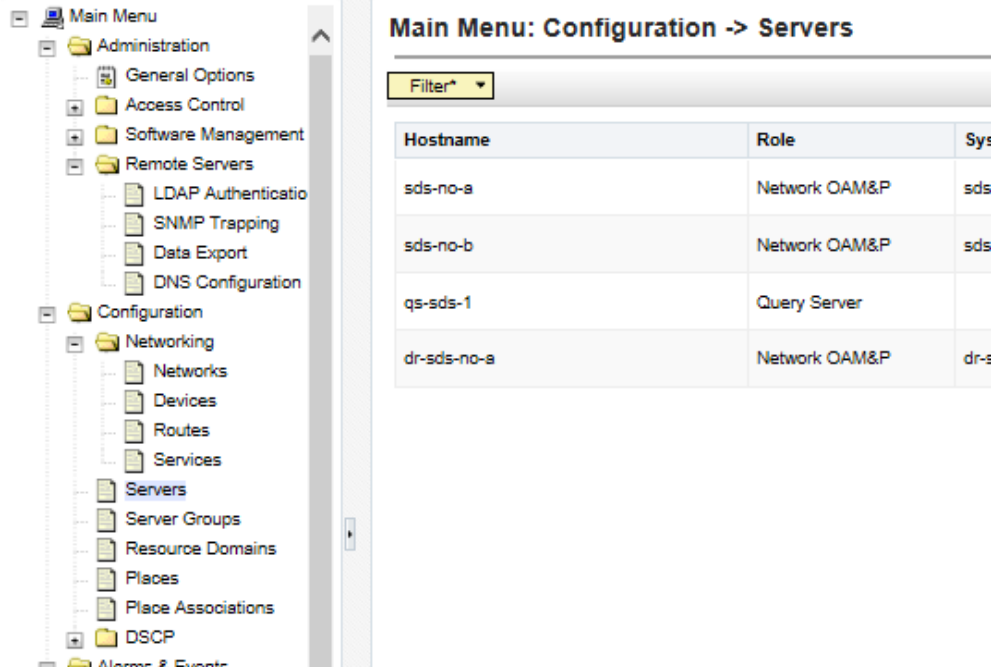
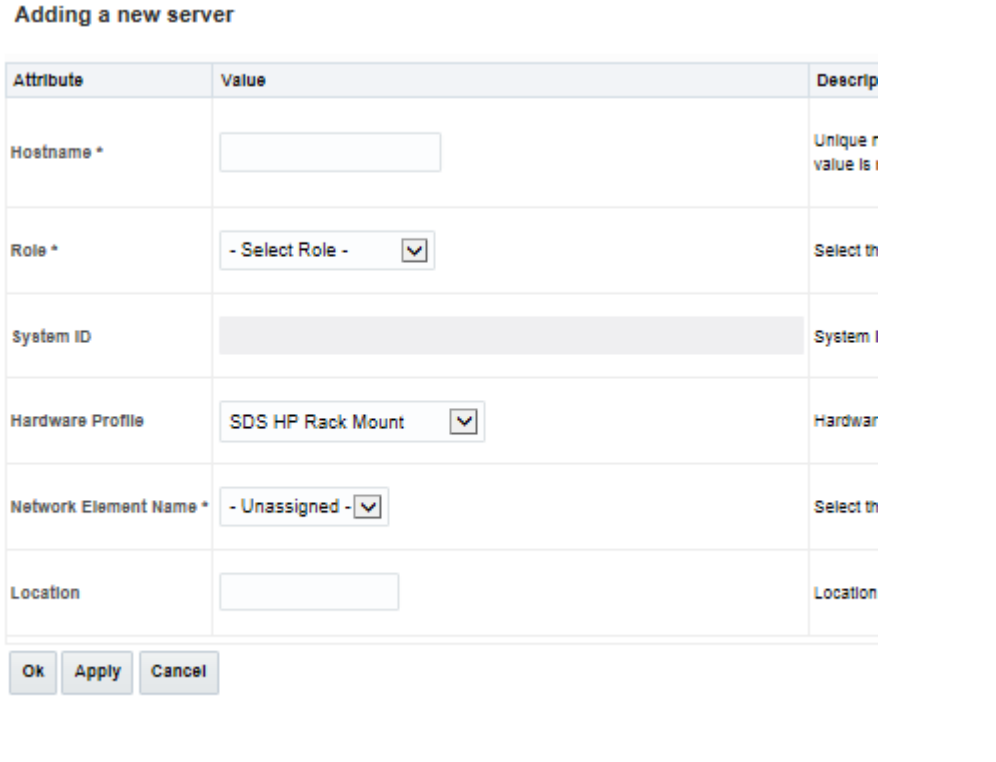
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<p><input type="checkbox"/></p>	<p>Primary SDS VIP: The user should be presented the login screen shown on the right.</p> <p>Login to the GUI using the default user and password.</p>	
<p><input type="checkbox"/></p>	<p>Primary SDS VIP: The user should be presented the SDS Main Menu as shown on the right.</p>	
<p><input type="checkbox"/></p>	<p>Primary SDS VIP: Select...</p> <p><u>Main Menu</u> → Configuration → Networking → Networks</p> <p>...as shown on the right.</p>	

Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<input type="checkbox"/>	<p>Primary SDS VIP: From the Configuration / Network Elements screen, select the “Browse” dialogue button</p>	 <p>The screenshot shows a web interface with a menu bar containing 'Insert', 'Edit', 'Lock/Unlock', 'Delete', 'Report', 'Insert Network Element', and 'Export'. On the right side, there is a text prompt: 'To create a new Network Element, upload a valid configuration file.' Below this prompt are two buttons: 'Browse' and 'Upload File'. At the bottom of the interface, there is a copyright notice: 'Copyright © 2015, 2016, Oracle and/or its affiliates. All rights reserved.' and a small status bar with colored indicators.</p>
<input type="checkbox"/>	<p>Primary SDS VIP: Note: This step assumes that the xml files were previously prepared, as described in Appendix E.</p> <ol style="list-style-type: none"> 1) Select the location containing the site .xml file. 2) Select the .xml file and click the “Open” dialogue button. 	 <p>The screenshot shows a 'Choose file' dialog box with the title bar 'Choose file'. The 'Look in:' field shows 'USB (E:)' and the file list contains several files: 'DR_NO_DEV.ne.xml', 'NO_DEV.ne.xml', 'SO_DEV.ne.xml', and 'TKLConfigData.dsds-dallasva.sh'. The 'File name:' field is set to 'SO_DEV.ne.xml' and the 'Files of type:' dropdown is set to 'All Files (*.*)'. The 'Open' button is highlighted.</p>
<input type="checkbox"/>	<p>Primary SDS VIP: Select the “Upload File” dialogue button (bottom left corner of screen).</p>	 <p>This screenshot is similar to the first one, but the 'Upload File' button is now highlighted in the bottom right corner of the interface.</p>
<input type="checkbox"/>	<p>Primary SDS VIP: If the values in the .xml file pass validation rules, the user must select the ‘Info’ box to receive a banner information message showing that the data has been successfully validated and committed to the DB.</p>	 <p>The screenshot shows the Oracle Configuration page with a breadcrumb trail: 'Main Menu: Configuration -> Networking -> Networks'. A green information banner is displayed at the top of the main content area, stating: 'Network Element insert successful from /tmp/SDS NO.xml'. Below the banner is a table with columns: 'Network Name', 'Network Type', 'Default', 'Locked', 'Routed', and 'VLAN'. The Oracle logo is visible in the top left corner.</p>

Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<p><input type="checkbox"/></p>	<p>Primary SDS VIP: 1) Select... <u>Main Menu</u> → Configuration → Servers ...as shown on the right. 2) Select the “Insert” dialogue button</p>	
<p><input type="checkbox"/></p>	<p>Primary SDS VIP: The user is now presented with the “Adding a new server” configuration screen.</p>	

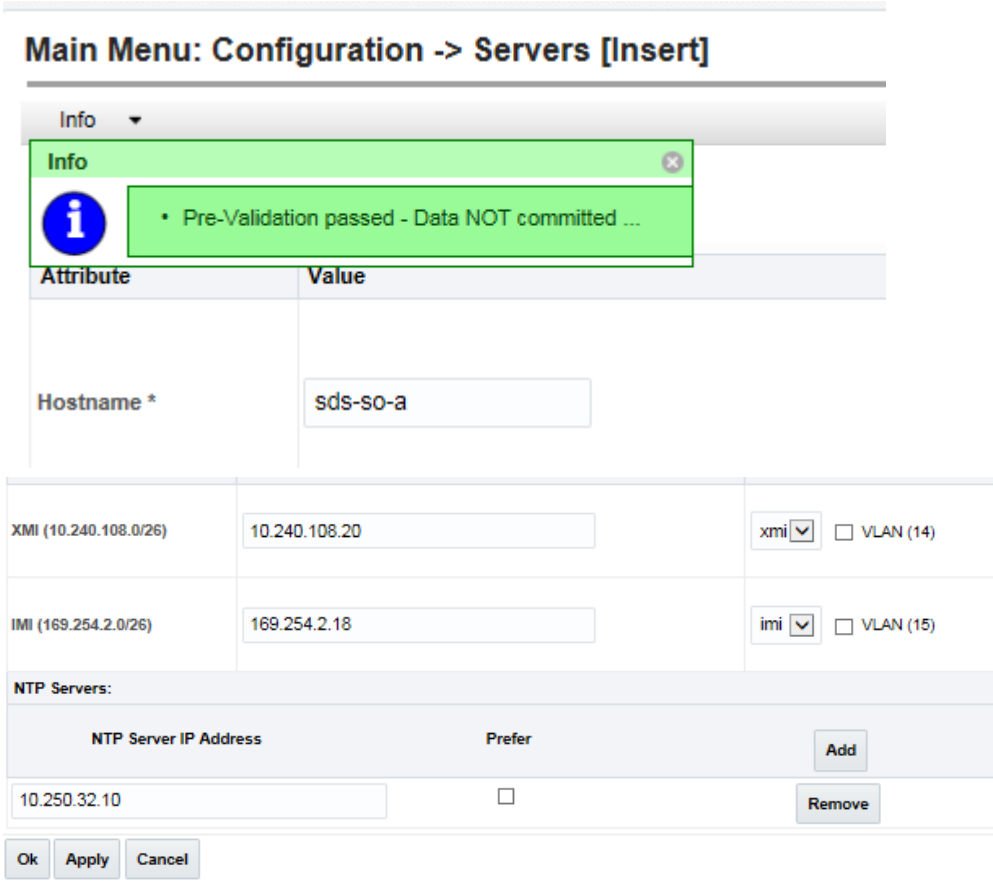
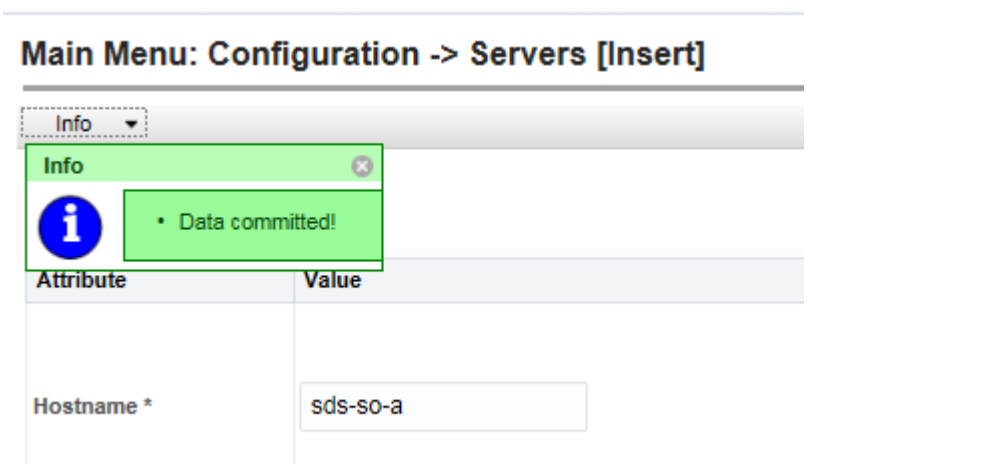
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result						
<input type="checkbox"/>	Primary SDS VIP: Input the assigned "hostname" for SOAM Server.	<table border="1"> <thead> <tr> <th>Attribute</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Hostname *</td> <td>sds-so-a</td> <td>Unique name for the server. [Default = n/a. Range = A 20-character string. Valid characters are alphanumeric and minus sign. Must start with an alphanumeric and end with an alphanumeric.] [A value is required.]</td> </tr> </tbody> </table>	Attribute	Value	Description	Hostname *	sds-so-a	Unique name for the server. [Default = n/a. Range = A 20-character string. Valid characters are alphanumeric and minus sign. Must start with an alphanumeric and end with an alphanumeric.] [A value is required.]
Attribute	Value	Description						
Hostname *	sds-so-a	Unique name for the server. [Default = n/a. Range = A 20-character string. Valid characters are alphanumeric and minus sign. Must start with an alphanumeric and end with an alphanumeric.] [A value is required.]						
<input type="checkbox"/>	Primary SDS VIP: Select "SYSTEM OAM" for the Role from the pull-down menu.	<table border="1"> <tbody> <tr> <td>Role *</td> <td> <div style="border: 1px solid black; padding: 2px;"> - Select Role - NETWORK OAM&P SYSTEM OAM MP QUERY SERVER </div> </td> <td>Select the function of the server [A value is required.]</td> </tr> </tbody> </table>	Role *	<div style="border: 1px solid black; padding: 2px;"> - Select Role - NETWORK OAM&P SYSTEM OAM MP QUERY SERVER </div>	Select the function of the server [A value is required.]			
Role *	<div style="border: 1px solid black; padding: 2px;"> - Select Role - NETWORK OAM&P SYSTEM OAM MP QUERY SERVER </div>	Select the function of the server [A value is required.]						
<input type="checkbox"/>	Primary SDS VIP: Input the assigned hostname again as the "System ID" for the SO Server (A or B).	<table border="1"> <tbody> <tr> <td>System ID</td> <td>sds-so-a</td> <td>System ID for the NOAMP or SOAM Server. Range = A 64-character string.</td> </tr> </tbody> </table>	System ID	sds-so-a	System ID for the NOAMP or SOAM Server. Range = A 64-character string.			
System ID	sds-so-a	System ID for the NOAMP or SOAM Server. Range = A 64-character string.						
<input type="checkbox"/>	Primary SDS VIP: Select "SDS TVOE Guest" for the Hardware Profile for the SOAM from the pull-down menu.	<table border="1"> <tbody> <tr> <td>System ID</td> <td></td> <td>System ID for the NOAMP or SOAM Server. Range = A 64-character string. Valid</td> </tr> <tr> <td>Hardware Profile</td> <td> <div style="border: 1px solid black; padding: 2px;"> SDS HP Rack Mount SDS Cloud Guest SDS HP c-Class Blade V1 SDS HP c-Class Blade V2 SDS TVOE Guest SDS HP c-Class Blade V0 </div> </td> <td>Hardware profile of the server</td> </tr> </tbody> </table>	System ID		System ID for the NOAMP or SOAM Server. Range = A 64-character string. Valid	Hardware Profile	<div style="border: 1px solid black; padding: 2px;"> SDS HP Rack Mount SDS Cloud Guest SDS HP c-Class Blade V1 SDS HP c-Class Blade V2 SDS TVOE Guest SDS HP c-Class Blade V0 </div>	Hardware profile of the server
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Hardware Profile	<div style="border: 1px solid black; padding: 2px;"> SDS HP Rack Mount SDS Cloud Guest SDS HP c-Class Blade V1 SDS HP c-Class Blade V2 SDS TVOE Guest SDS HP c-Class Blade V0 </div>	Hardware profile of the server						
<input type="checkbox"/>	Primary SDS VIP: Select the Network Element Name for the SDS from the pull-down menu. <i>NOTE: After the Network Element Name is selected, the Interfaces fields will be displayed, as seen in Step 41.</i>	<table border="1"> <tbody> <tr> <td>Network Element Name *</td> <td>SDS_NE</td> <td>Select the network element [A value is required.]</td> </tr> </tbody> </table>	Network Element Name *	SDS_NE	Select the network element [A value is required.]			
Network Element Name *	SDS_NE	Select the network element [A value is required.]						
<input type="checkbox"/>	Primary SDS VIP: Enter the site location.	<table border="1"> <tbody> <tr> <td>Location</td> <td>Bangalore</td> <td>Location description [Default = "", Range = A 15-character string. Valid value is any text string.]</td> </tr> </tbody> </table> <p><i>NOTE: Location is an optional field.</i></p>	Location	Bangalore	Location description [Default = "", Range = A 15-character string. Valid value is any text string.]			
Location	Bangalore	Location description [Default = "", Range = A 15-character string. Valid value is any text string.]						

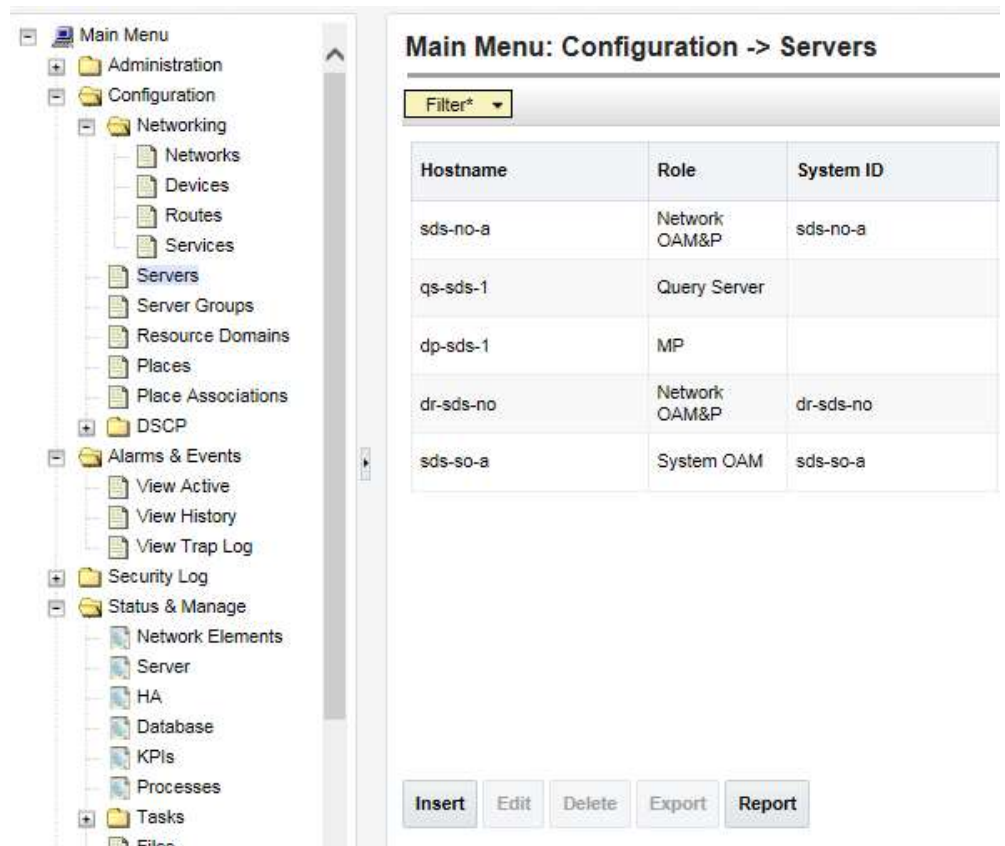

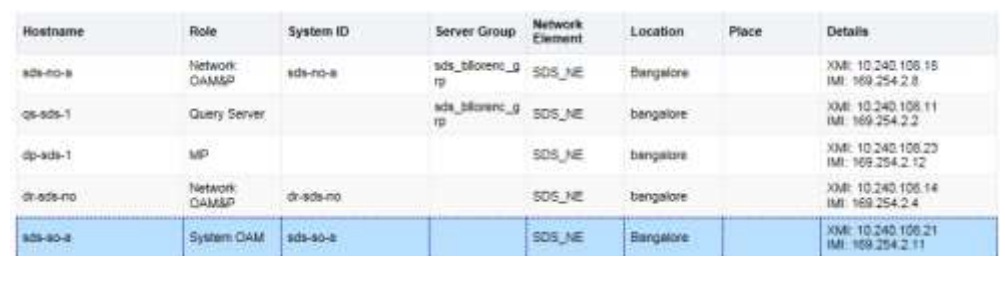
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result									
<input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>1) Enter the XMI IP address and IMI IP address for the SDS SOAM Server.</p> <p>2) Set the XMI Interface to “xmi” and DO NOT check the VLAN checkbox.</p> <p>3) Set the IMI Interface to “imi” and DO NOT check the VLAN checkbox.</p>	<table border="1"> <thead> <tr> <th>Network</th> <th>IP Address</th> <th>Interface</th> </tr> </thead> <tbody> <tr> <td>XMI (10.240.108.0/26)</td> <td>10.240.108.21</td> <td>xmi <input type="checkbox"/> VLAN (14)</td> </tr> <tr> <td>IMI (169.254.2.0/26)</td> <td>169.254.2.11</td> <td>imi <input type="checkbox"/> VLAN (15)</td> </tr> </tbody> </table>	Network	IP Address	Interface	XMI (10.240.108.0/26)	10.240.108.21	xmi <input type="checkbox"/> VLAN (14)	IMI (169.254.2.0/26)	169.254.2.11	imi <input type="checkbox"/> VLAN (15)
Network	IP Address	Interface									
XMI (10.240.108.0/26)	10.240.108.21	xmi <input type="checkbox"/> VLAN (14)									
IMI (169.254.2.0/26)	169.254.2.11	imi <input type="checkbox"/> VLAN (15)									
<input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>1) Click the “NTP Servers:” “Add” dialogue button.</p> <p>2) Enter the NTP Server IP Address for an NTP Server.</p> <p>3) Enter 3 NTP Server IP address, repeat (1) and (2) to enter it.</p> <p>4) Optionally, click the “Prefer” checkbox to prefer one NTP Server over the other.</p>	<p>The screenshot shows the 'NTP Servers' configuration dialog. It has three sections, each with a table of NTP servers. Each row includes an 'NTP Server IP Address' field, a 'Prefer' checkbox, and an 'Add' button. The first row has IP 10.250.32.10 and an unchecked 'Prefer' checkbox. The second row has IP 10.250.32.10 and an unchecked 'Prefer' checkbox. The third row has IP 10.250.32.51 and an unchecked 'Prefer' checkbox. The fourth row has IP 10.250.32.129 and a checked 'Prefer' checkbox. At the bottom, there are 'OK', 'Apply', and 'Cancel' buttons. The 'Add' button in the top right and the 'Apply' button at the bottom are circled in red.</p>									


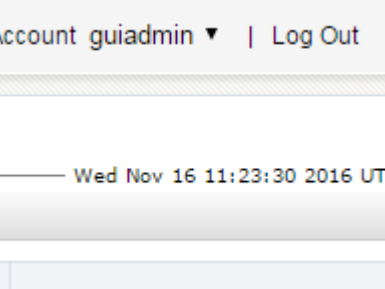
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Click the “Apply” dialogue button.</p>	 <p>The screenshot shows the 'Main Menu: Configuration -> Servers [Insert]' page. An 'Info' message box is displayed with the text 'Pre-Validation passed - Data NOT committed ...'. Below the message, the 'Hostname' field is set to 'sds-so-a'. There are also fields for 'XMI (10.240.108.0/26)' with value '10.240.108.20' and 'IMI (169.254.2.0/26)' with value '169.254.2.18'. An 'NTP Servers' table is visible with one entry: IP Address '10.250.32.10', 'Prefer' checkbox is unchecked. Buttons for 'Ok', 'Apply', and 'Cancel' are at the bottom.</p>
<p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>If the values provided match the network ranges assigned to the NE, the user must select the 'Info' box to receive a banner information message showing that the data has been validated and committed</p>	 <p>The screenshot shows the same configuration page as above. The 'Info' message box now displays 'Data committed!'. The 'Hostname' field remains 'sds-so-a'.</p>

Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<p><input type="checkbox"/></p>	<p>Primary SDS VIP: Select...</p> <p><u>Main Menu</u> → Configuration → Servers</p> <p>...as shown on the right.</p>	
<p><input type="checkbox"/></p>	<p>Primary SDS VIP: On the “Configuration →Servers” screen, find the newly added System SOAM server in the list.</p>	
<p><input type="checkbox"/></p>	<p>Primary SDS VIP: Use the cursor to select the new SOAM server entry added in the Step 35. The row containing the server should now be highlighted.</p>	

Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<input type="checkbox"/>	Primary SDS VIP: Select the “Export” dialogue button (bottom left corner of screen).	
<input type="checkbox"/>	Configure the SDS SOAM B server.	<ul style="list-style-type: none"> Repeat Steps 33- 48 of this procedure for the SDS SOAM B Server.
<input type="checkbox"/>	Primary SDS VIP: Click the “Logout” link on the SDS server GUI.	
<input type="checkbox"/>	Primary SDS VIP: Access the server console.	Connect to the Active SDS VIP console using one of the access methods described in Section 2.3.
<input type="checkbox"/>	Primary SDS VIP: Log into the server as the admusr	login: <code>admusr</code> Password: <code><admusr_password></code>
<input type="checkbox"/>	Primary SDS VIP: Change directory into the file management space.	<pre>\$ sudo cd /var/TKLC/db/filegmt</pre>
<input type="checkbox"/>	Primary SDS VIP: Get a directory listing and find the configuration files with the SOAM server A and B name as shown in red. Note: These should appear toward the bottom of the listing.	<pre>\$ ls -ltr TKLCConfigData*.sh</pre> <p>*** TRUNCATED OUTPUT ***</p> <pre>-rw-rw-rw- 1 admusr admusr 2208 Dec 19 16:37 TKLCConfigData.so-carync-a.sh -rw-rw-rw- 1 admusr admusr 2208 Dec 19 16:50 TKLCConfigData.so-carync-b.sh</pre>

Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<input type="checkbox"/>	<p>Primary SDS VIP: Copy the configuration files found in the previous step to the PMAC.</p>	<pre>\$ sudo scp -p <configuration_file-a> <configuration_file-b> admusr@<PMAC_Mgmt_IP>:/tmp/ admusr@10.240.39.4's password: TKLCConfigData.so-carync-a.sh 100% 1741 1.7KB/s 00:00 TKLCConfigData.so-carync-b.sh 100% 1741 1.7KB/s 00:00 [admusr@sds-mrsvnc-a filemgmt]#</pre>
	<p>Primary SDS VIP: Logout of the Primary SDS CLI.</p>	<pre>\$ exit</pre>
	<p>PMAC Server CLI: Use SSH to login to the PMAC Guest VM server as the admusr.</p>	<pre>login: admusr Password: <admusr_password></pre>
	<p>PMAC Guest VM: Keyexchange with SOAM control IP</p>	<pre>\$ keyexchange admusr@<SOAM_Control_IP> Example: [admusr@nassau-enc-pmac-1 ~]\$ keyexchange admusr@192.168.1.22 The server does not know of 192.168.1.22. Will just exchange host keys for the name given! Password of admusr: Could not get authorized keys file from remote (192.168.1.22). Maybe it does not exist. Continuing... The server does not know of 192.168.1.22. Will just exchange host keys for the name given! ssh is working correctly. [admusr@nassau-enc-pmac-1 ~]\$</pre>
<input type="checkbox"/>	<p>PMAC Guest VM: Copy the server configuration file to the Control IP for the SOAM. Note: The Control IP for each OAM is obtained in Step 18 of this procedure.</p>	<pre>\$ scp -p /tmp/<configuration_file> admusr@<SOAM_Control_IP>:/var/TKLC/db/filemgmt admusr@192.168.1.199's password: TKLCConfigData.so-carync-a.sh 100% 1741 1.7KB/s 00:00</pre>
<input type="checkbox"/>	<p>PMAC Guest VM: Connect to the SOAM server console from the PMAC Server Console</p>	<pre>\$ sudo ssh < SOAM_Guest_Control_IP> admusr@192.168.1.199's password: <admusr_password></pre>

Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<input type="checkbox"/>	<p>SOAM Guest VM:</p> <p>Copy the server configuration file to the “/var/tmp” directory on the server, making sure to rename the file by omitting the server hostname (shown in red) from the file name.</p>	<p><i>Example:</i></p> <p>TKLCConfigData<.server_hostname>.sh → will translate to →TKLCConfigData.sh</p> <p>\$ sudo cp -p /var/TKLC/db/filemgmt/TKLCConfigData.so-carync-a.sh /var/tmp/TKLCConfigData.sh</p> <p><i>NOTE: The server will poll the /var/tmp directory for the presence of the configuration file and automatically execute it when found.</i></p>
<input type="checkbox"/>	<p>SOAM Guest VM:</p> <p>After the script completes, a broadcast message will be sent to the terminal.</p> <p><i>NOTE: The user should be aware that the time to complete this step varies by server and may take from 3-20 minutes to complete.</i></p>	<p>*** NO OUTPUT FOR ≈ 3-20 MINUTES ***</p> <p>Broadcast message from admusr (Mon Dec 14 15:47:33 2009):</p> <p>Server configuration completed successfully!</p> <p>See /var/TKLC/appw/logs/Process/install.log for details.</p> <p>Please remove the USB flash drive if connected and reboot the server.</p> <p><ENTER></p>
	<p>SOAM Guest VM:</p> <p>Verify that the desired Time Zone is currently in use.</p>	<p>\$ date</p> <p>Mon Aug 10 19:34:51 UTC 2015</p> <p>Verify if the Timezone displayed above matches the value set in Procedure 2, Step 42.</p>
<input type="checkbox"/>	<p>SOAM Guest VM:</p> <p>Initiate a reboot of the SOAM server.</p>	<p>\$ sudo init 6</p>
<input type="checkbox"/>	<p>SOAM Guest VM:</p> <p>Output similar to that shown on the right may be observed as the server initiates a reboot.</p>	<p>Connection to 192.168.1.199 closed by remote host.</p> <p>Connection to 192.168.1.199 closed.</p>
<input type="checkbox"/>	<p>PMAC Guest VM:</p> <p>After the SOAM server has completed reboot, re-connect to the SOAM server console from the PMAC Server Console</p>	<p>\$ sudo ssh <SOAM_Control_IP></p> <p>admusr@192.168.1.199's password: <admusr_password></p>

Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<input type="checkbox"/>	<p>SOAM Guest VM:</p> <p>1) Verify that the IMI IP address input in Step 41 has been applied as specified.</p> <p>2) Verify that the XMI IP address input in Step 41 has been applied as specified.</p>	<pre>\$ ifconfig grep in control Link encap:Ethernet HWaddr 52:54:00:23:DC:32 inet addr:192.168.1.199 Bcast:192.168.1.255 Mask:255.255.255.0 imi Link encap:Ethernet HWaddr 52:54:00:33:DC:DC inet addr:10.240.38.18 Bcast:10.240.38.127 Mask:255.255.255.192 lo Link encap:Local Loopback inet addr:127.0.0.1 Mask:255.0.0.0 xmi Link encap:Ethernet HWaddr 52:54:00:63:63:BD inet addr:10.240.39.150 Bcast:10.240.39.255 Mask:255.255.255.128</pre>
	<p>SOAM Guest VM:</p> <p>Execute a “syscheck” to verify the current health of the server.</p>	<pre>\$ sudo syscheck Running modules in class hardware... OK Running modules in class disk... OK Running modules in class net... OK Running modules in class system... OK Running modules in class proc... OK LOG LOCATION: /var/TKLC/log/syscheck/fail_log</pre>


Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
	<p>SOAM Guest VM:</p> <p>Accept upgrade to the Application Software.</p> <p>- Running the "accept" script from the command line now launches a screen session on blades & VM Guest.</p> <p>- Use the "q" key to exit the screen session</p>	<p>-</p> <pre>[admusr@nassau-sds-so-b ~]\$ sudo /var/TKLC/backout/accept</pre> <p>Called with options: --accept Loading Backout::BackoutType::RPM Accepting Upgrade Executing common accept tasks Setting POST_UPGRADE_ACTION to ACCEPT in upgrade info. Cleaning backout directory. Clearing Upgrade Accept/Reject alarm. Cleaning message from MOTD. No patch pending alarm on server so no MOTD update. Cleaning up RPM config backup files... Checking / Checking /boot Checking /tmp Checking /usr Checking /var Checking /var/TKLC Checking /tmp/appworks_temp Checking /usr/openv Checking /var/TKLC/appw/logs/Process Checking /var/TKLC/appw/logs/Security Checking /var/TKLC/db/filemgmt Checking /var/TKLC/rundb Starting cleanup of RCS repository. INFO: Removing '/etc/my.cnf' from RCS repository INFO: Removing '/etc/pam.d/password-auth' from RCS repository INFO: Removing '/etc/pam.d/system-auth' from RCS repository INFO: Removing '/etc/sysconfig/network-scripts/ifcfg-eth0' from RCS repository INFO: Removing '/etc/php.d/zip.ini' from RCS repository INFO: Removing '/var/lib/prelink/force' from RCS repository === Window terminated (Thu Feb 2 20:07:21 2017) === screen session: use 'screen -x upgrade' to reconnect</p> <p>Type the letter "q" on the keyboard to exit the screen session.</p> <p>[screen is terminating] [admusr@nassau-sds-so-b ~]\$</p>
	<p>Apply the SDS SOAM B server configuration file.</p>	<ul style="list-style-type: none"> Repeat Steps 57 - 69 this procedure for SOAM Server B.

Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<input type="checkbox"/>	<p>SOAM Guest B: From the SOAM-B Guest, “ping” the IMI IP address of the SOAM-A Guest</p>	<pre>\$ ping -c 5 10.240.38.78 PING 10.240.38.78 (10.240.38.78) 56(84) bytes of data. 64 bytes from 10.240.38.78: icmp_seq=1 ttl=64 time=0.031 ms 64 bytes from 10.240.38.78: icmp_seq=2 ttl=64 time=0.017 ms 64 bytes from 10.240.38.78: icmp_seq=3 ttl=64 time=0.031 ms 64 bytes from 10.240.38.78: icmp_seq=4 ttl=64 time=0.028 ms 64 bytes from 10.240.38.78: icmp_seq=5 ttl=64 time=0.030 ms 64 bytes from 10.240.38.78: icmp_seq=6 ttl=64 time=0.028 ms --- 10.240.38.78 ping statistics --- 6 packets transmitted, 6 received, 0% packet loss, time 5000ms rtt min/avg/max/mdev = 0.017/0.027/0.031/0.007 ms</pre>
	<p>SOAM Guest B: From the SOAM-B Guest, “ping” the XMI IP address of the SOAM-A Guest</p>	<pre>\$ ping -c 5 10.240.39.150 PING 10.240.39.150 (10.240.39.150) 56(84) bytes of data. 64 bytes from 10.240.39.150: icmp_seq=1 ttl=64 time=0.024 ms 64 bytes from 10.240.39.150: icmp_seq=2 ttl=64 time=0.033 ms 64 bytes from 10.240.39.150: icmp_seq=3 ttl=64 time=0.032 ms 64 bytes from 10.240.39.150: icmp_seq=4 ttl=64 time=0.026 ms 64 bytes from 10.240.39.150: icmp_seq=5 ttl=64 time=0.027 ms 64 bytes from 10.240.39.150: icmp_seq=6 ttl=64 time=0.026 ms --- 10.240.39.150 ping statistics --- 6 packets transmitted, 6 received, 0% packet loss, time 5004ms rtt min/avg/max/mdev = 0.024/0.028/0.033/0.003 ms</pre>
<input type="checkbox"/>	<p>SOAM Guest B: From the SOAM-B Guest, “ping” the local XMI Gateway address associated with the SOAM NE.</p>	<pre>\$ ping -c 5 10.240.39.1 PING 10.240.39.1 (10.240.39.1) 56(84) bytes of data. 64 bytes from 10.240.39.1: icmp_seq=1 ttl=64 time=0.024 ms 64 bytes from 10.240.39.1: icmp_seq=2 ttl=64 time=0.033 ms 64 bytes from 10.240.39.1: icmp_seq=3 ttl=64 time=0.032 ms 64 bytes from 10.240.39.1: icmp_seq=4 ttl=64 time=0.026 ms 64 bytes from 10.240.39.1: icmp_seq=5 ttl=64 time=0.027 ms 64 bytes from 10.240.39.1: icmp_seq=6 ttl=64 time=0.026 ms --- 10.240.39.1 ping statistics --- 6 packets transmitted, 6 received, 0% packet loss, time 5004ms rtt min/avg/max/mdev = 0.024/0.028/0.033/0.003 ms</pre>
<input type="checkbox"/>	<p>SOAM Guest VM: Use the “ntpq” command to verify that the server has connectivity to the assigned Primary and Secondary NTP server(s).</p>	<pre>\$ ntpq -np remote refid st t when poll reach delay offset jitter ===== +10.250.32.10 192.5.41.209 2 u 139 1024 377 2.008 1.006 1.049 *10.250.32.51 192.5.41.209 2 u 979 1024 377 0.507 1.664 0.702</pre>

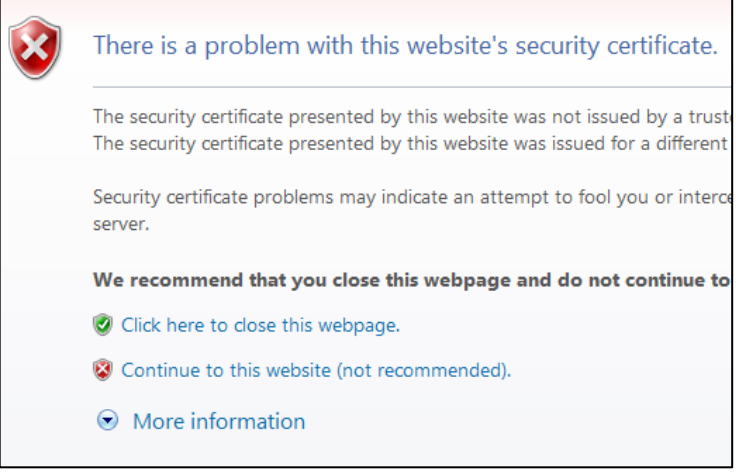

Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
	<p>IF CONNECTIVITY TO THE NTP SERVER(S) CANNOT BE ESTABLISHED, STOP AND EXECUTE THE FOLLOWING STEPS:</p> <ol style="list-style-type: none"> 1) Contact the customer to verify that the IP addresses for the NTP server(s) are correct. 2) Have the customer IT group provide a network path from the OAM server IP to the assigned NTP IP addresses. <p>ONCE NETWORK CONNECTIVITY IS ESTABLISHED TO THE ASSIGNED NTP IP ADDRESSES, THEN RESTART THIS PROCEDURE BEGINNING WITH STEP 74.</p>	
<input type="checkbox"/>	<p>SOAM Guest VM: Exit from the SOAM command line to return the PMAC server console prompt.</p>	<p>\$ exit</p>
<input type="checkbox"/>	<p>PMAC Guest VM: Exit from the PMAC server</p>	<p>\$ exit</p>
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>		

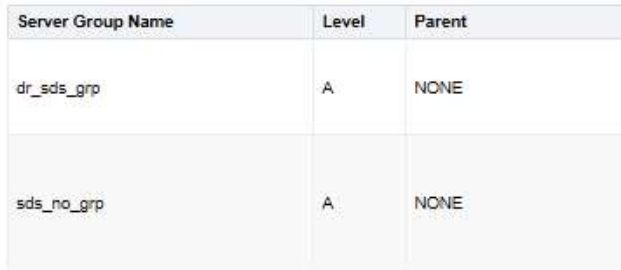
5.8 OAM Pairing for SDS SOAM sites (All SOAM sites)

The user should be aware that during the OAM Pairing procedure, various errors may be seen at different stages of the procedure. During the execution of a step, the user is directed to ignore errors related to values other than the ones referenced by that step.

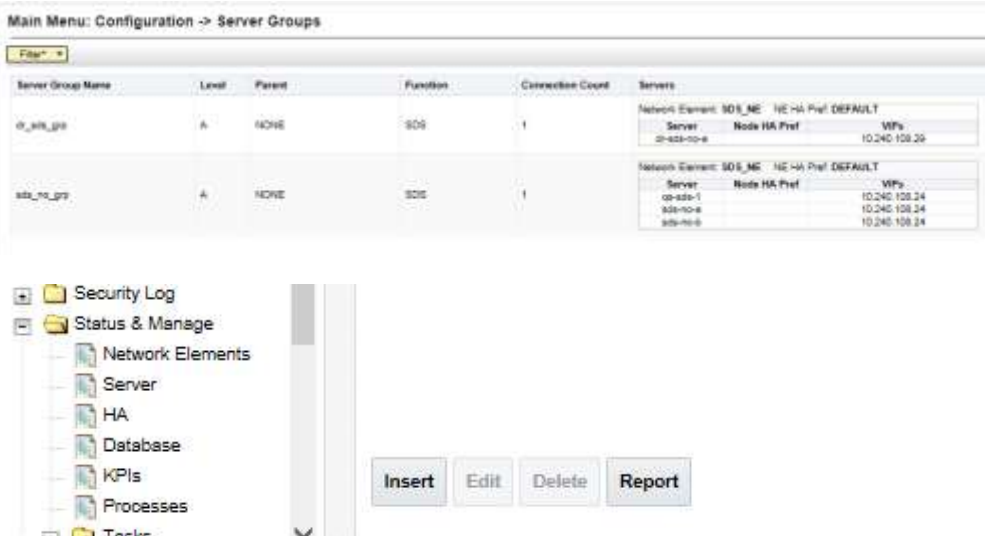
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

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

Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result									
<input type="checkbox"/>	<p>Primary SDS VIP: The user should be presented the SDS Main Menu as shown on the right.</p>										
<input type="checkbox"/>	<p>Primary SDS VIP: Select... <u>Main Menu</u> → Configuration → <i>Server Groups</i> ...as shown on the right.</p>	 <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> </tr> </thead> <tbody> <tr> <td>dr_sds_grp</td> <td>A</td> <td>NONE</td> </tr> <tr> <td>sds_no_grp</td> <td>A</td> <td>NONE</td> </tr> </tbody>	Server Group Name	Level	Parent	dr_sds_grp	A	NONE	sds_no_grp	A	NONE
Server Group Name	Level	Parent									
dr_sds_grp	A	NONE									
sds_no_grp	A	NONE									

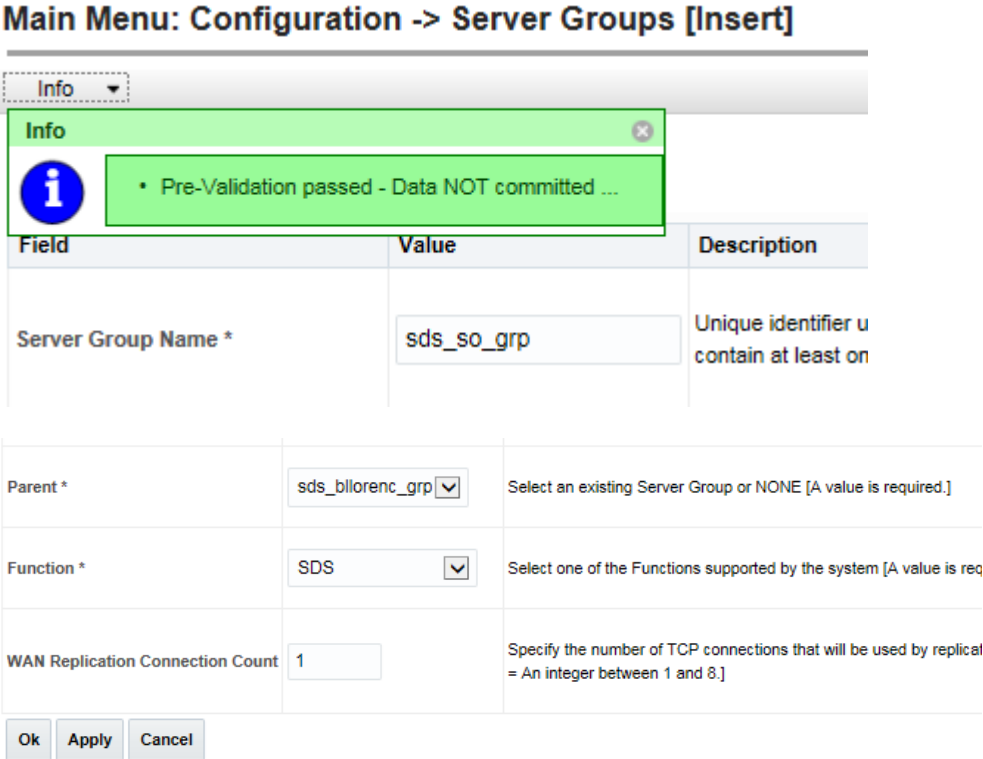
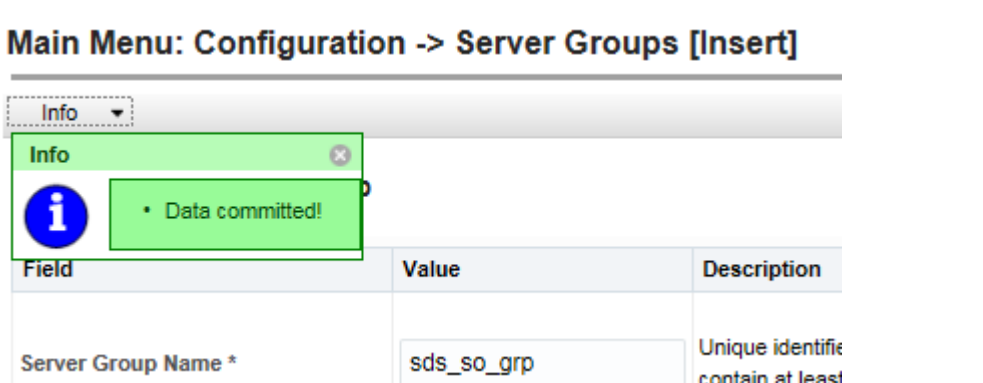
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result																		
<p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) The user will be presented with the “Server Groups” configuration screen as shown on the right.</p> <p>2) Select the “Insert” dialogue button from the bottom left corner of the screen.</p> <p><i>NOTE: The user may need to use the vertical scroll-bar in order to make the “Insert” dialogue button visible.</i></p>																			
<p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The user will be presented with the “Server Groups [Insert]” screen as shown on the right.</p> <p><i>NOTE: Leave the “WAN Replication Connection Count” blank (it will default to 1).</i></p>	<p>Main Menu: Configuration -> Server Groups [Insert]</p> <p>Info ▾</p> <p>Adding new server group</p> <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name *</td> <td>sds_so_grp</td> <td>Unique identifier used to label a Server Group. [De contain at least one alpha and must not start with a</td> </tr> <tr> <td>Level *</td> <td>A ▾</td> <td>Select one of the Levels supported by the system. servers. Level C groups contain MP servers.] [A va</td> </tr> <tr> <td>Parent *</td> <td>NONE ▾</td> <td>Select an existing Server Group or NONE [A value</td> </tr> <tr> <td>Function *</td> <td>SDS ▾</td> <td>Select one of the Functions supported by the syste</td> </tr> <tr> <td>WAN Replication Connection Count</td> <td>1</td> <td>Specify the number of TCP connections that will be = An integer between 1 and 8.]</td> </tr> </tbody> </table> <p>Ok Apply Cancel</p>	Field	Value	Description	Server Group Name *	sds_so_grp	Unique identifier used to label a Server Group. [De contain at least one alpha and must not start with a	Level *	A ▾	Select one of the Levels supported by the system. servers. Level C groups contain MP servers.] [A va	Parent *	NONE ▾	Select an existing Server Group or NONE [A value	Function *	SDS ▾	Select one of the Functions supported by the syste	WAN Replication Connection Count	1	Specify the number of TCP connections that will be = An integer between 1 and 8.]
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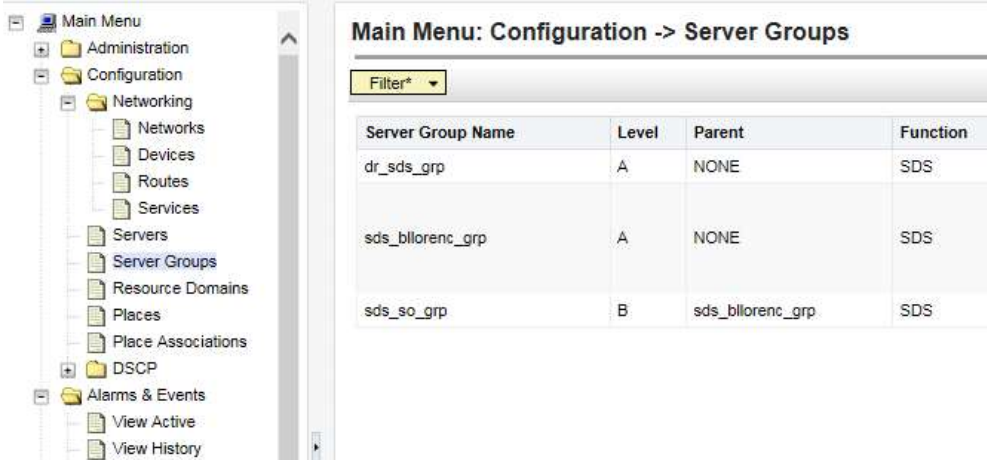

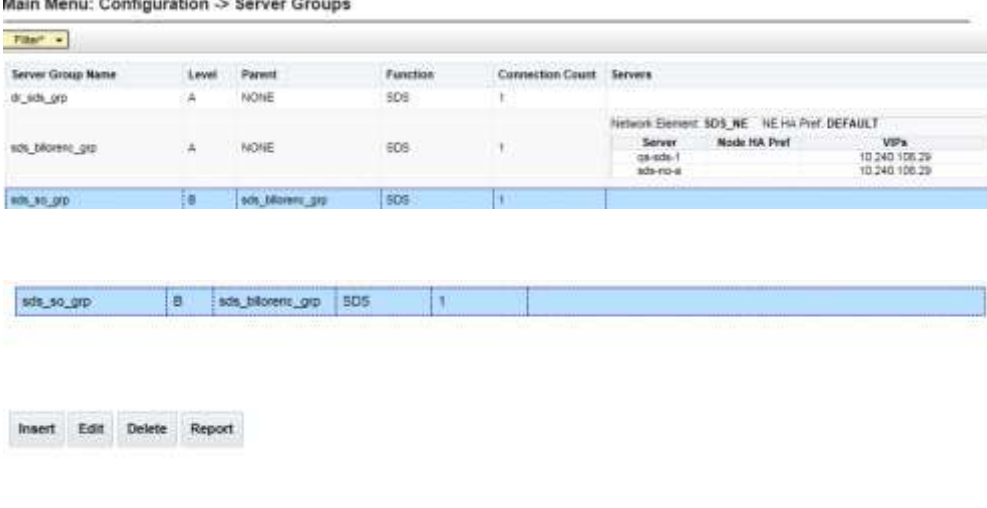
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result						
<input type="checkbox"/>	Primary SDS VIP: Input the Server Group Name.	<table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name *</td> <td>sds_so_grp</td> <td>Unique identifier used to label a Server Group. [Description: contain at least one alpha and must not start with t</td> </tr> </tbody> </table>	Field	Value	Description	Server Group Name *	sds_so_grp	Unique identifier used to label a Server Group. [Description: contain at least one alpha and must not start with t
Field	Value	Description						
Server Group Name *	sds_so_grp	Unique identifier used to label a Server Group. [Description: contain at least one alpha and must not start with t						
<input type="checkbox"/>	Primary SDS VIP: Select “B” on the “Level” pull-down menu...	<table border="1"> <tbody> <tr> <td>Level *</td> <td> <div style="border: 1px solid black; padding: 2px;"> - Select Level - A B C </div> </td> <td>Select one of the Levels supported by the system servers. Level C groups contain MP servers.]</td> </tr> </tbody> </table>	Level *	<div style="border: 1px solid black; padding: 2px;"> - Select Level - A B C </div>	Select one of the Levels supported by the system servers. Level C groups contain MP servers.]			
Level *	<div style="border: 1px solid black; padding: 2px;"> - Select Level - A B C </div>	Select one of the Levels supported by the system servers. Level C groups contain MP servers.]						
<input type="checkbox"/>	Primary SDS VIP: Select the 1 st SDS Site’s server group, as entered in Procedure 3, Step 7, on the “Parent” pull-down menu...	<table border="1"> <tbody> <tr> <td>Parent *</td> <td> <div style="border: 1px solid black; padding: 2px;"> - Select Parent - NONE sds_bilorenc_grp </div> </td> <td>Select an existing Server Group or NONE [A value is required.]</td> </tr> </tbody> </table>	Parent *	<div style="border: 1px solid black; padding: 2px;"> - Select Parent - NONE sds_bilorenc_grp </div>	Select an existing Server Group or NONE [A value is required.]			
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<input type="checkbox"/>	Primary SDS VIP: Select “SDS” on the “Function” pull-down menu.	<table border="1"> <tbody> <tr> <td>Function *</td> <td> <div style="border: 1px solid black; padding: 2px;"> - Select Function - NONE SDS </div> </td> <td>Select one of the Functions supported by the system [A value is required.]</td> </tr> </tbody> </table>	Function *	<div style="border: 1px solid black; padding: 2px;"> - Select Function - NONE SDS </div>	Select one of the Functions supported by the system [A value is required.]			
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Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result															
<input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Select the “Apply” dialogue button.</p>	 <p>Main Menu: Configuration -> Server Groups [Insert]</p> <p>Info</p> <p>Info</p> <ul style="list-style-type: none"> Pre-Validation passed - Data NOT committed ... <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name *</td> <td>sds_so_grp</td> <td>Unique identifier u contain at least on</td> </tr> <tr> <td>Parent *</td> <td>sds_bllorenc_grp</td> <td>Select an existing Server Group or NONE [A value is required.]</td> </tr> <tr> <td>Function *</td> <td>SDS</td> <td>Select one of the Functions supported by the system [A value is req</td> </tr> <tr> <td>WAN Replication Connection Count</td> <td>1</td> <td>Specify the number of TCP connections that will be used by replicat = An integer between 1 and 8.]</td> </tr> </tbody> </table> <p>Ok Apply Cancel</p>	Field	Value	Description	Server Group Name *	sds_so_grp	Unique identifier u contain at least on	Parent *	sds_bllorenc_grp	Select an existing Server Group or NONE [A value is required.]	Function *	SDS	Select one of the Functions supported by the system [A value is req	WAN Replication Connection Count	1	Specify the number of TCP connections that will be used by replicat = An integer between 1 and 8.]
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<input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>The user should be presented with a banner information message stating “Data committed”.</p>	 <p>Main Menu: Configuration -> Server Groups [Insert]</p> <p>Info</p> <p>Info</p> <ul style="list-style-type: none"> Data committed! <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name *</td> <td>sds_so_grp</td> <td>Unique identifie contain at least</td> </tr> </tbody> </table>	Field	Value	Description	Server Group Name *	sds_so_grp	Unique identifie contain at least									
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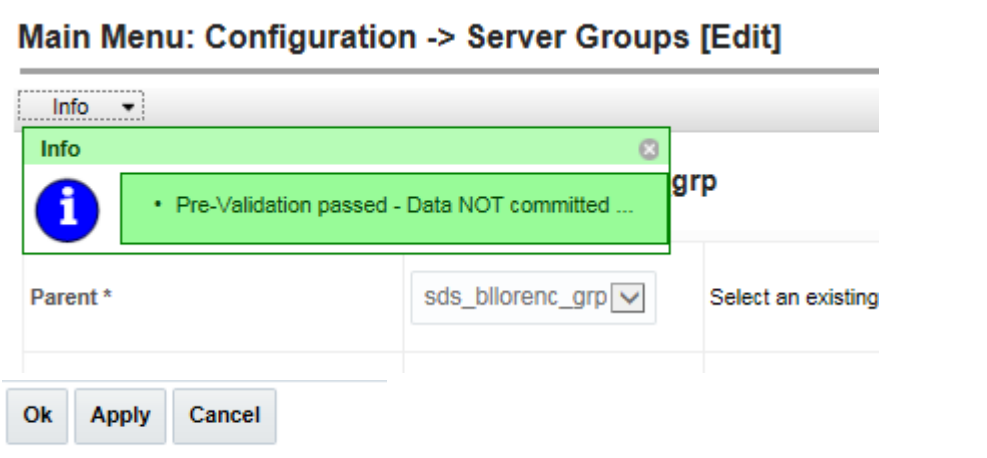
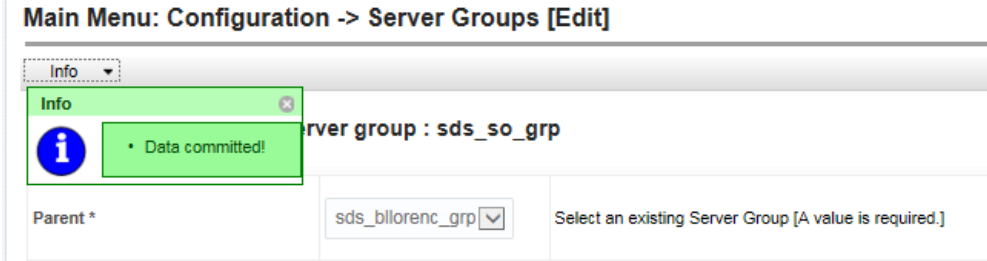
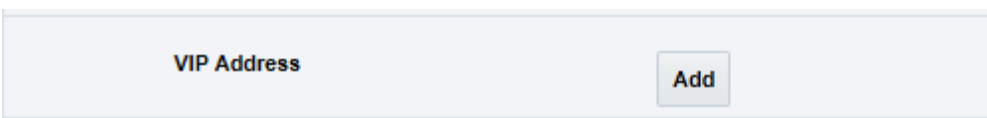
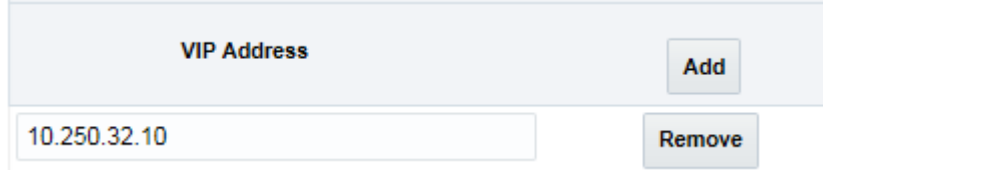
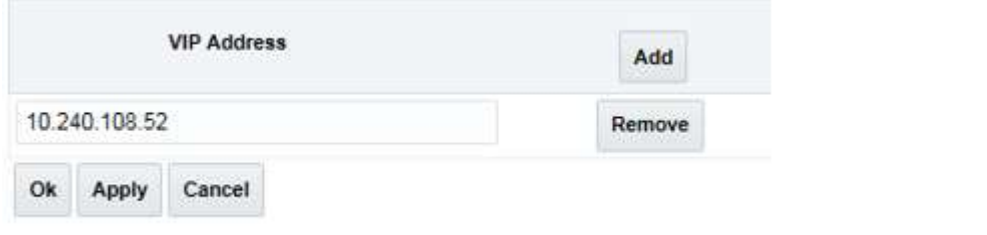
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<input type="checkbox"/>	<p>Primary SDS VIP: Select...</p> <p><u>Main Menu</u> → Configuration → Server Groups</p> <p>...as shown on the right.</p>	
<input type="checkbox"/>	<p>Primary SDS VIP: The Server Group entry should be shown on the “Server Groups” configuration screen as shown on the right.</p>	
<input type="checkbox"/>	<p>Primary SDS VIP: 1) Select the Server Group entry applied in Step 12. The line entry should now be highlighted in.</p> <p>2) Select the “Edit” dialogue button from the bottom left corner of the screen.</p> <p><i>NOTE: The user may need to use the vertical scroll-bar in order to make the “Edit” dialogue button visible.</i></p>	

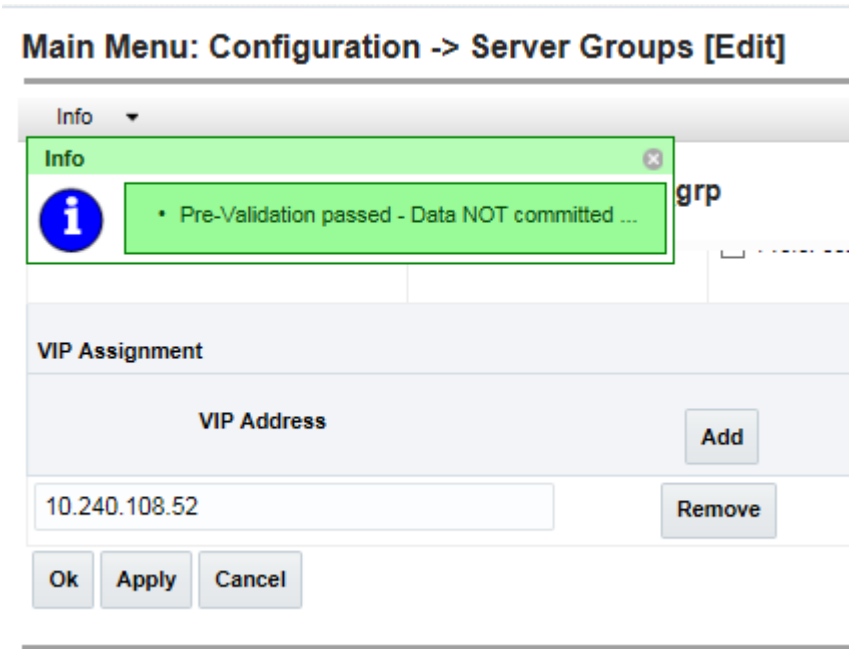
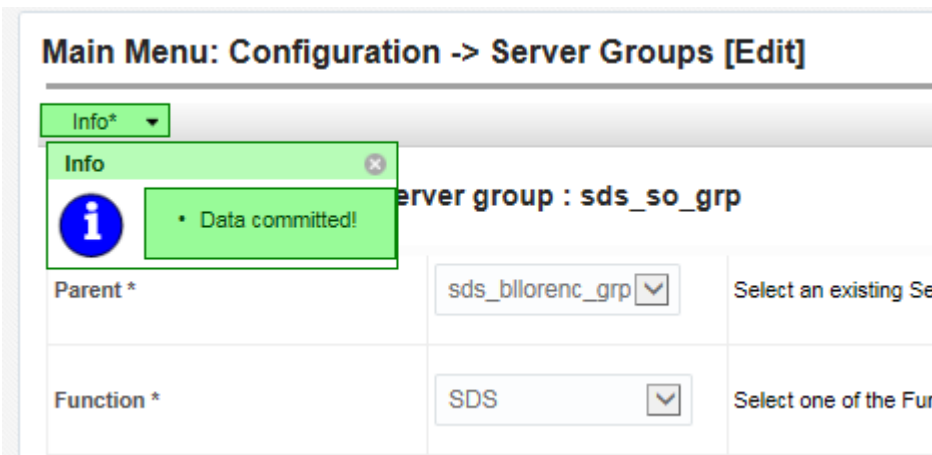

Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result																								
<input type="checkbox"/>	<p>Primary SDS VIP: The user will be presented with the “Server Groups [Edit]” screen as shown on the right.</p>	<p>Main Menu: Configuration -> Server Groups [Edit]</p> <hr/> <p>Modifying attributes of server group : sds_so_grp</p> <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name *</td> <td>sds_so_grp</td> <td>Unique Identifier used to label a Server Group. It must be alphanumeric and must not start with a digit.</td> </tr> <tr> <td>Level *</td> <td>B</td> <td>Select one of the Levels supported by the system.</td> </tr> <tr> <td>Parent *</td> <td>sds_bllorenc_grp</td> <td>Select an existing Server Group [A valid parent must be selected].</td> </tr> <tr> <td>Function *</td> <td>SDS</td> <td>Select one of the Functions supported by the system.</td> </tr> <tr> <td>WAN Replication Connection Count</td> <td>1</td> <td>Specify the number of TCP connections to use for WAN replication (1 and 8).</td> </tr> </tbody> </table> <p>SDS_NE <input type="checkbox"/> Prefer Network Element as spare</p> <table border="1"> <thead> <tr> <th>Server</th> <th>SG Inclusion</th> <th>Preferred HA Role</th> </tr> </thead> <tbody> <tr> <td>sds-so-a</td> <td><input type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Prefer server as spare</td> </tr> </tbody> </table> <p>VIP Assignment</p> <p>VIP Address <input type="text"/> <input type="button" value="Add"/></p> <p><input type="button" value="Ok"/> <input type="button" value="Apply"/> <input type="button" value="Cancel"/></p>	Field	Value	Description	Server Group Name *	sds_so_grp	Unique Identifier used to label a Server Group. It must be alphanumeric and must not start with a digit.	Level *	B	Select one of the Levels supported by the system.	Parent *	sds_bllorenc_grp	Select an existing Server Group [A valid parent must be selected].	Function *	SDS	Select one of the Functions supported by the system.	WAN Replication Connection Count	1	Specify the number of TCP connections to use for WAN replication (1 and 8).	Server	SG Inclusion	Preferred HA Role	sds-so-a	<input type="checkbox"/> Include in SG	<input type="checkbox"/> Prefer server as spare
Field	Value	Description																								
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sds-so-a	<input type="checkbox"/> Include in SG	<input type="checkbox"/> Prefer server as spare																								
<input type="checkbox"/>	<p>Primary SDS VIP: Select the “A” server and the “B” server from the list of “Servers” by clicking the check box next to their names.</p>	<table border="1"> <thead> <tr> <th>Server</th> <th>SG Inclusion</th> <th>Preferred HA Role</th> </tr> </thead> <tbody> <tr> <td>sds-so-a</td> <td><input checked="" type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Prefer server as spare</td> </tr> </tbody> </table>	Server	SG Inclusion	Preferred HA Role	sds-so-a	<input checked="" type="checkbox"/> Include in SG	<input type="checkbox"/> Prefer server as spare																		
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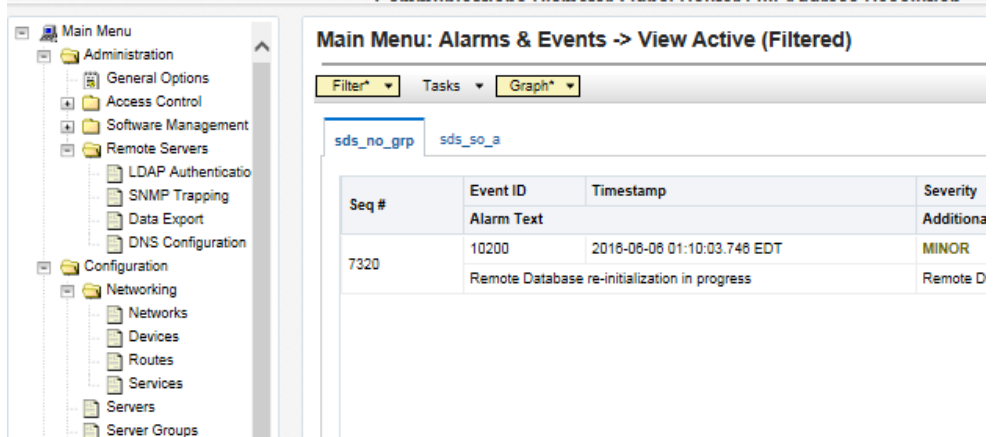

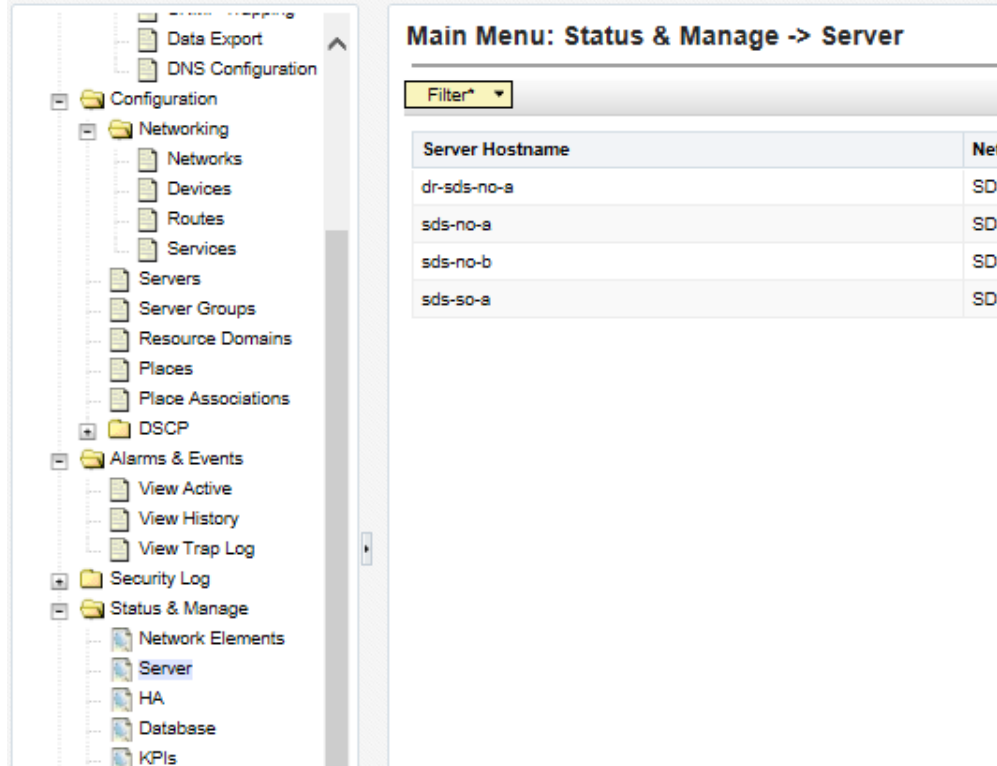
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Select the “Apply” dialogue button.</p>	
<input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>The user should be presented with a banner information message stating “Data committed”.</p>	
<input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Click the “Add” dialogue button for the VIP Address.</p>	
<input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Input the VIP Address</p>	
<input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Click the “Apply” dialogue button.</p>	

Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result																																				
<input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Select the “Apply” dialogue button.</p>																																					
<input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>The user should be presented with a banner information message stating “Data committed”.</p>																																					
	<p>Primary SDS VIP:</p> <p>Select...</p> <p><u>Main Menu</u> → Alarms & Events → <i>View Active</i></p> <p>... as shown on the right.</p>	 <table border="1"> <thead> <tr> <th>Seq #</th> <th>Event ID</th> <th>Alarm Text</th> <th>Timestamp</th> <th>Severity</th> <th>Protocol</th> <th>Process</th> <th>HE</th> <th>Server</th> </tr> </thead> <tbody> <tr> <td>48</td> <td>31202</td> <td>HA Management Fail</td> <td>2019-09-03 10:33:00:000 EDT</td> <td>CLEAR</td> <td>Platform</td> <td>sdscn</td> <td>SDS_VIP</td> <td>SDS-10-4</td> </tr> <tr> <td>52</td> <td>31203</td> <td>SDS Fail</td> <td>2019-09-03 10:34:00:000 EDT</td> <td>CLEAR</td> <td>Platform</td> <td>sdscn</td> <td>SDS_VIP</td> <td>SDS-10-4</td> </tr> <tr> <td>5</td> <td>31204</td> <td>HA Auxiliary Data Degraded</td> <td>2019-09-03 10:31:52:000 EDT</td> <td>WARNING</td> <td>Platform</td> <td>sdscn</td> <td>SDS_VIP</td> <td>SDS-10-4</td> </tr> </tbody> </table>	Seq #	Event ID	Alarm Text	Timestamp	Severity	Protocol	Process	HE	Server	48	31202	HA Management Fail	2019-09-03 10:33:00:000 EDT	CLEAR	Platform	sdscn	SDS_VIP	SDS-10-4	52	31203	SDS Fail	2019-09-03 10:34:00:000 EDT	CLEAR	Platform	sdscn	SDS_VIP	SDS-10-4	5	31204	HA Auxiliary Data Degraded	2019-09-03 10:31:52:000 EDT	WARNING	Platform	sdscn	SDS_VIP	SDS-10-4
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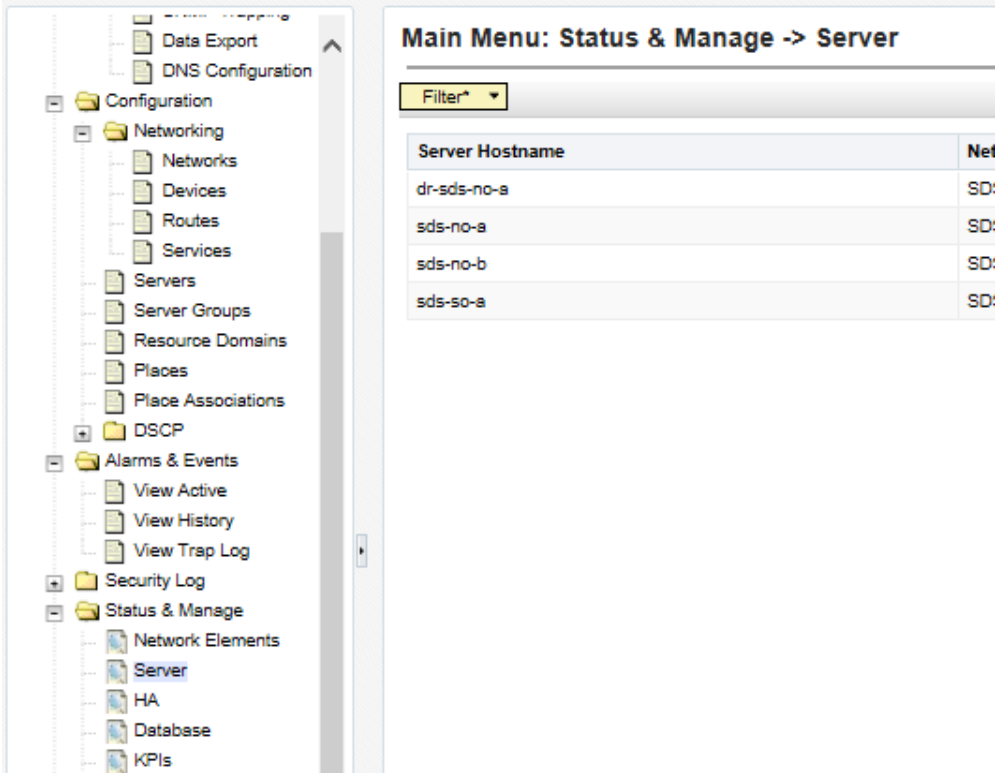
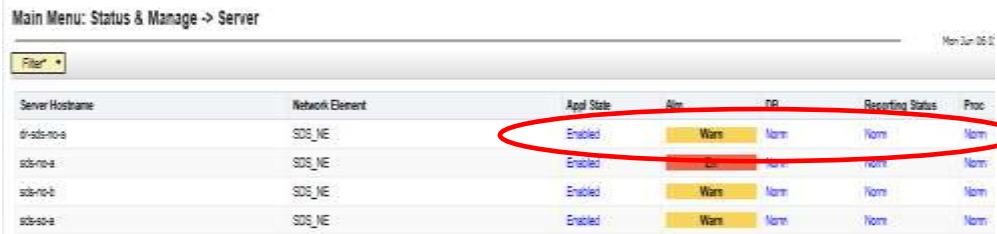
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result												
	<p>Primary SDS VIP:</p> <p>Verify that Event ID 10200 (<i>Remote Database re-initialization in progress</i>) alarms are present with the SDS SOAM Server hostnames in the “Instance” field..</p>	 <p>The screenshot shows the 'Main Menu: Alarms & Events -> View Active (Filtered)' window. The left sidebar shows a tree view with 'Alarms & Events' expanded. The main panel shows a table with the following data:</p> <table border="1"> <thead> <tr> <th>Seq #</th> <th>Event ID</th> <th>Timestamp</th> <th>Severity</th> </tr> </thead> <tbody> <tr> <td>7320</td> <td>10200</td> <td>2016-08-08 01:10:03.746 EDT</td> <td>MINOR</td> </tr> <tr> <td></td> <td colspan="2">Remote Database re-initialization in progress</td> <td>Remote D</td> </tr> </tbody> </table>	Seq #	Event ID	Timestamp	Severity	7320	10200	2016-08-08 01:10:03.746 EDT	MINOR		Remote Database re-initialization in progress		Remote D
Seq #	Event ID	Timestamp	Severity											
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	Remote Database re-initialization in progress		Remote D											
		<p>MONITOR THE EVENT ID 10200 (<i>Remote Database re-initialization in progress</i>) ALARMS.</p> <p>DO NOT PROCEED TO THE NEXT STEP UNTIL THE ALARM CLEAR IS RECEIVED FOR BOTH SDS SOAM SERVERS.</p>												
<p><input type="checkbox"/></p> <p>Primary SDS VIP: Select...</p> <p><u>Main Menu</u> → Status & Manage → Server</p> <p>...as shown on the right.</p>		 <p>The screenshot shows the 'Main Menu: Status & Manage -> Server' window. The left sidebar shows a tree view with 'Status & Manage' expanded and 'Server' selected. The main panel shows a table with the following data:</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Net</th> </tr> </thead> <tbody> <tr> <td>dr-sds-no-a</td> <td>SD:</td> </tr> <tr> <td>sds-no-a</td> <td>SD:</td> </tr> <tr> <td>sds-no-b</td> <td>SD:</td> </tr> <tr> <td>sds-so-a</td> <td>SD:</td> </tr> </tbody> </table>	Server Hostname	Net	dr-sds-no-a	SD:	sds-no-a	SD:	sds-no-b	SD:	sds-so-a	SD:		
Server Hostname	Net													
dr-sds-no-a	SD:													
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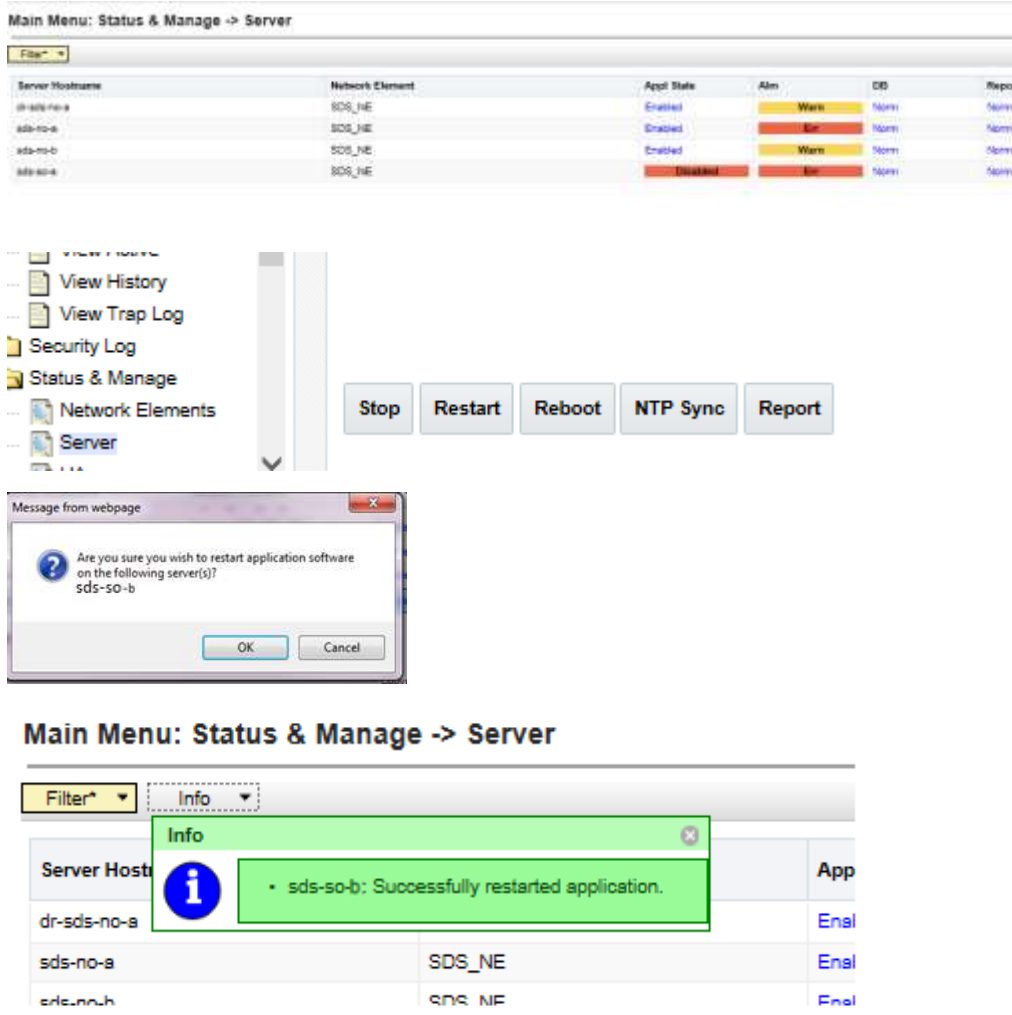
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) The “A” and “B” SOAM servers should now appear in the right panel.</p> <p>2) Verify that the “DB” status shows “Norm” and the “Proc” status shows “Man” for both servers before proceeding to the next Step.</p>	
<p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) Using the mouse, select SOAM Server A. The line entry should now be highlighted in.</p> <p>2) Select the “Restart” dialogue button from the bottom left corner of the screen.</p> <p>3) Click the “OK” button on the confirmation dialogue box.</p> <p>4) The user should be presented with a confirmation message (in the banner area) for SOAM Server A stating: “Successfully restarted application”.</p>	

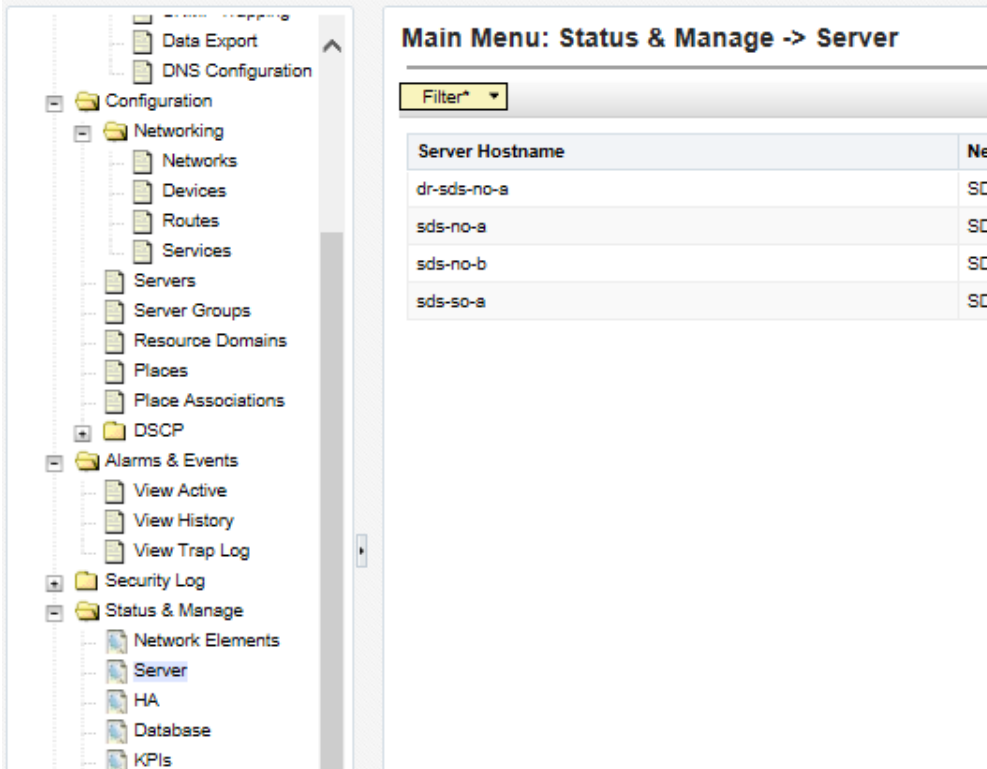
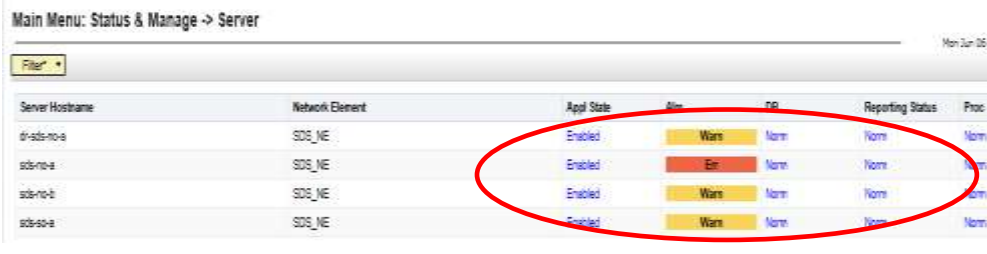
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result																																			
<input type="checkbox"/>	<p>Primary SDS VIP: Select...</p> <p><u>Main Menu</u> → Status & Manage → Server</p> <p>...as shown on the right.</p>	 <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Net</th> </tr> </thead> <tbody> <tr> <td>dr-sds-no-a</td> <td>SD:</td> </tr> <tr> <td>sds-no-a</td> <td>SD:</td> </tr> <tr> <td>sds-no-b</td> <td>SD:</td> </tr> <tr> <td>sds-so-a</td> <td>SD:</td> </tr> </tbody> </table>	Server Hostname	Net	dr-sds-no-a	SD:	sds-no-a	SD:	sds-no-b	SD:	sds-so-a	SD:																									
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<input type="checkbox"/>	<p>Primary SDS VIP: Verify that the “Appl State” now shows “Enabled” and that the “Alm, DB, Reporting Status, & Proc” status columns all show “Norm” for SOAM Server A before proceeding to the next Step.</p> <p><i>NOTE: If user chooses to refresh the Server status screen in advance of the default setting (15-30 sec.). This may be done by simply reselecting the “Status & Manage → Server” option from the Main menu on the left.</i></p>	 <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>dr-sds-no-a</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-no-a</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-no-b</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-so-a</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table>	Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc	dr-sds-no-a	SDS_NE	Enabled	Warn	Norm	Norm	Norm	sds-no-a	SDS_NE	Enabled	Warn	Norm	Norm	Norm	sds-no-b	SDS_NE	Enabled	Warn	Norm	Norm	Norm	sds-so-a	SDS_NE	Enabled	Warn	Norm	Norm	Norm
Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc																															
dr-sds-no-a	SDS_NE	Enabled	Warn	Norm	Norm	Norm																															
sds-no-a	SDS_NE	Enabled	Warn	Norm	Norm	Norm																															
sds-no-b	SDS_NE	Enabled	Warn	Norm	Norm	Norm																															
sds-so-a	SDS_NE	Enabled	Warn	Norm	Norm	Norm																															

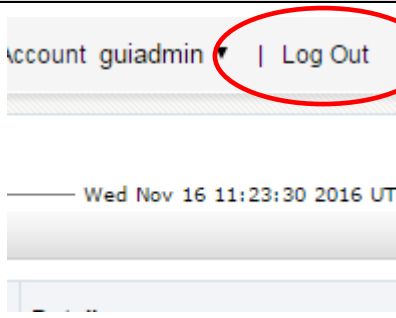
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<p>□</p>	<p>Primary SDS VIP:</p> <ol style="list-style-type: none"> 1) Using the mouse, select SOAM Server B. The line entry should now be highlighted in. 2) Select the “Restart” dialogue button from the bottom left corner of the screen. 3) Click the “OK” button on the confirmation dialogue box. 4) The user should be presented with a confirmation message (in the banner area) for SOAM Server B stating: “Successfully restarted application”. 	 <p>The screenshot shows the 'Main Menu: Status & Manage -> Server' interface. It features a table with columns: Server Hostname, Network Element, Appl State, Alm, DB, and Repor. The table lists four servers: dr-sds-no-a, sds-no-a, sds-no-b, and sds-so-b. The 'sds-so-b' row is highlighted. Below the table are navigation buttons: Stop, Restart, Reboot, NTP Sync, and Report. A confirmation dialog box is shown with the text: 'Message from webpage: Are you sure you wish to restart application software on the following server(s)? sds-so-b'. Below the dialog, an info message box displays: 'Info: sds-so-b: Successfully restarted application.'</p>

Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result																																			
<p><input type="checkbox"/></p>	<p>Primary SDS VIP: Select...</p> <p><u>Main Menu</u> → Status & Manage → Server</p> <p>...as shown on the right.</p>	 <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Net</th> </tr> </thead> <tbody> <tr> <td>dr-sds-no-a</td> <td>SD:</td> </tr> <tr> <td>sds-no-a</td> <td>SD:</td> </tr> <tr> <td>sds-no-b</td> <td>SD:</td> </tr> <tr> <td>sds-so-a</td> <td>SD:</td> </tr> </tbody> </table>	Server Hostname	Net	dr-sds-no-a	SD:	sds-no-a	SD:	sds-no-b	SD:	sds-so-a	SD:																									
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<p><input type="checkbox"/></p>	<p>Primary SDS VIP: Verify that the “Appl State” now shows “Enabled” and that the “Alm, DB, Reporting Status & Proc” status columns all show “Norm” for SOAM Server A and Server B before proceeding to the next Step.</p>	 <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>dr-sds-no-a</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-no-a</td> <td>SDS_NE</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-no-b</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-so-a</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table> <p>NOTE: If user chooses to refresh the Server status screen in advance of the default setting (15-30 sec.). This may be done by simply reselecting the “Status & Manage → Server” option from the Main menu on the left.</p>	Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc	dr-sds-no-a	SDS_NE	Enabled	Warn	Norm	Norm	Norm	sds-no-a	SDS_NE	Enabled	Err	Norm	Norm	Norm	sds-no-b	SDS_NE	Enabled	Warn	Norm	Norm	Norm	sds-so-a	SDS_NE	Enabled	Warn	Norm	Norm	Norm
Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc																															
dr-sds-no-a	SDS_NE	Enabled	Warn	Norm	Norm	Norm																															
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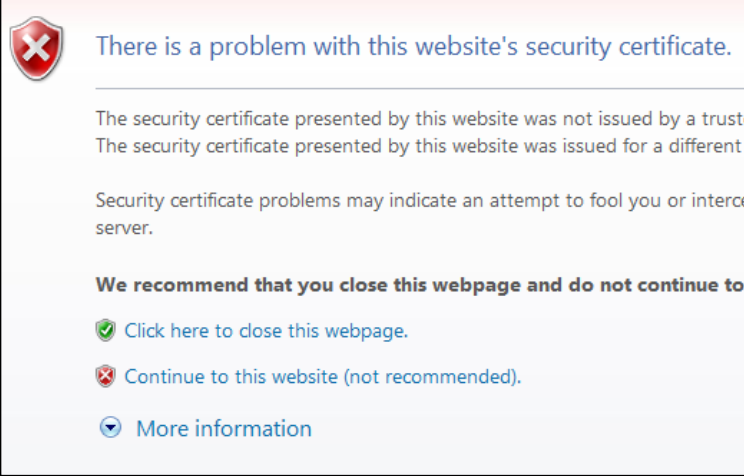
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Click the “Logout” link on the SDS server GUI.</p>	
THIS PROCEDURE HAS BEEN COMPLETED		


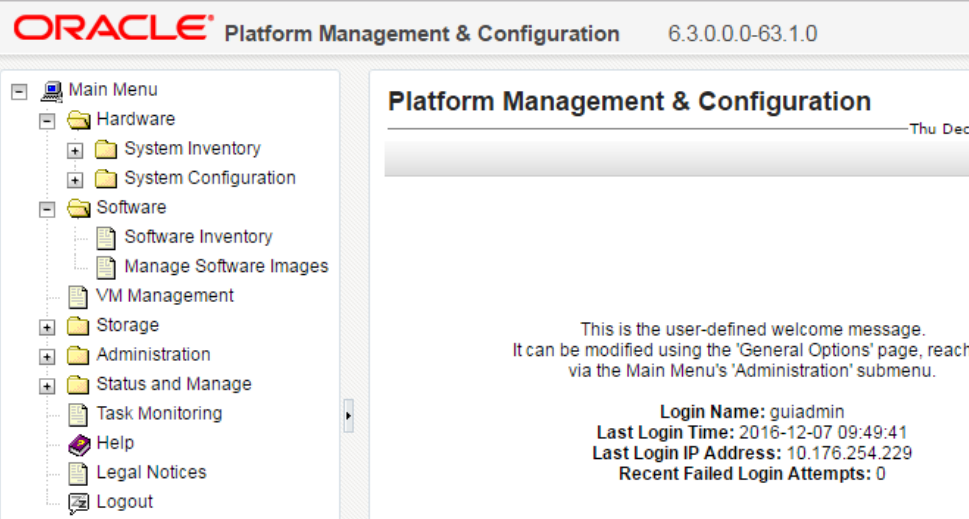
5.9 DP Installation (All SOAM sites)

The user should be aware that during the Data Processor (DP) installation procedure, various errors may be seen at different stages of the procedure. During the execution of a step, the user is directed to ignore errors related to values other than the ones referenced by that step.

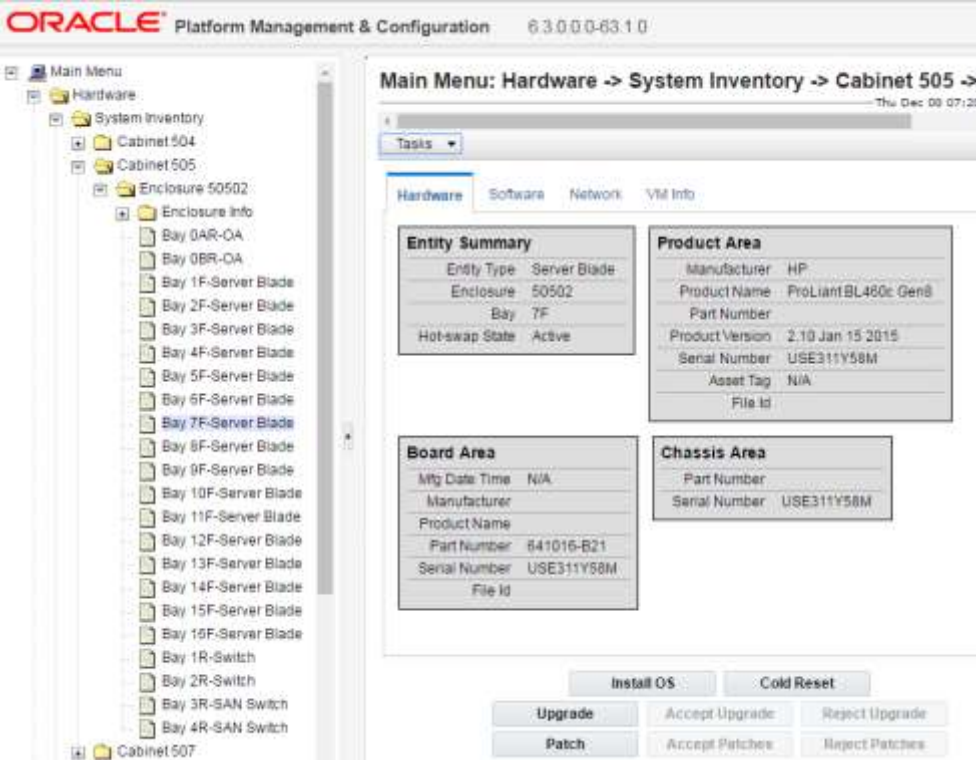

Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
 <p>EXECUTE Appendix I: (Disable Hyperthreading For GEN8 & Gen9 (DP Only) ON EACH DP BLADE AFTER THIS PROCEDURE.</p>		
1. <input type="checkbox"/>	<p>PMAC Guest VM:</p> <p>Launch an approved web browser and connect to the XMI IP Address of the PMAC server at the SOAM site</p> <p>NOTE: <i>If presented with the “security certificate” warning screen shown to the right, choose the following option: “Continue to this website (not recommended)”.</i></p>	

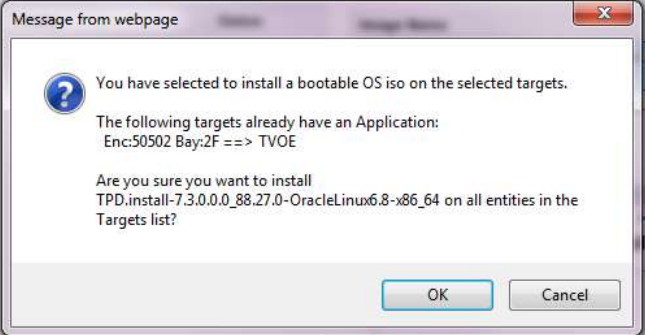
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
<p>2.</p> <p><input type="checkbox"/></p>	<p>PMAC Guest VM:</p> <p>The user should be presented the login screen shown on the right.</p> <p>Login to the GUI using the default user and password.</p>	
<p>3.</p> <p><input type="checkbox"/></p>	<p>PMAC Guest VM:</p> <p>The user should be presented the PMAC Main Menu as shown on the right...</p>	

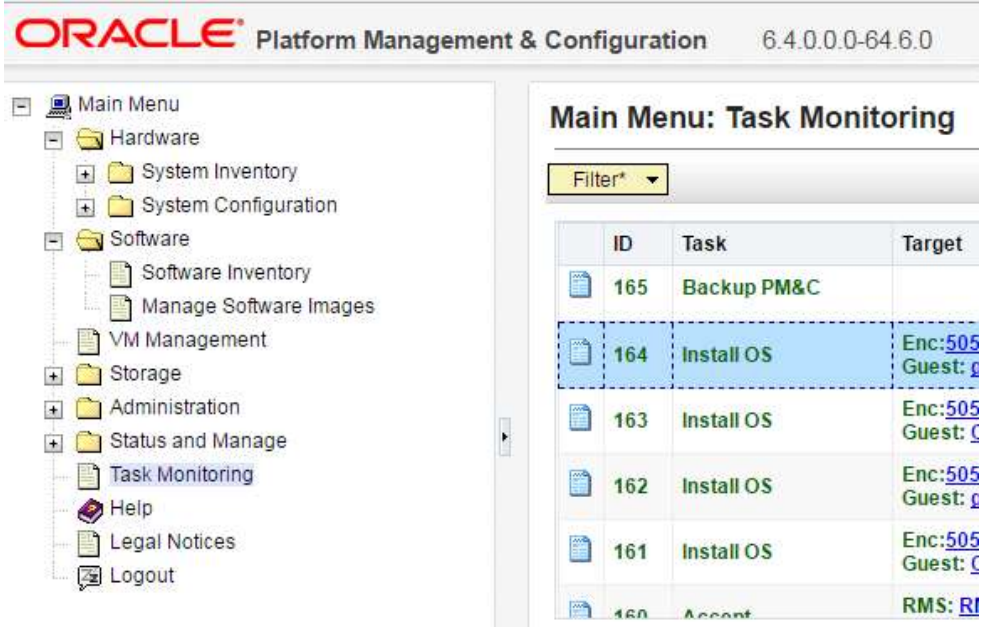

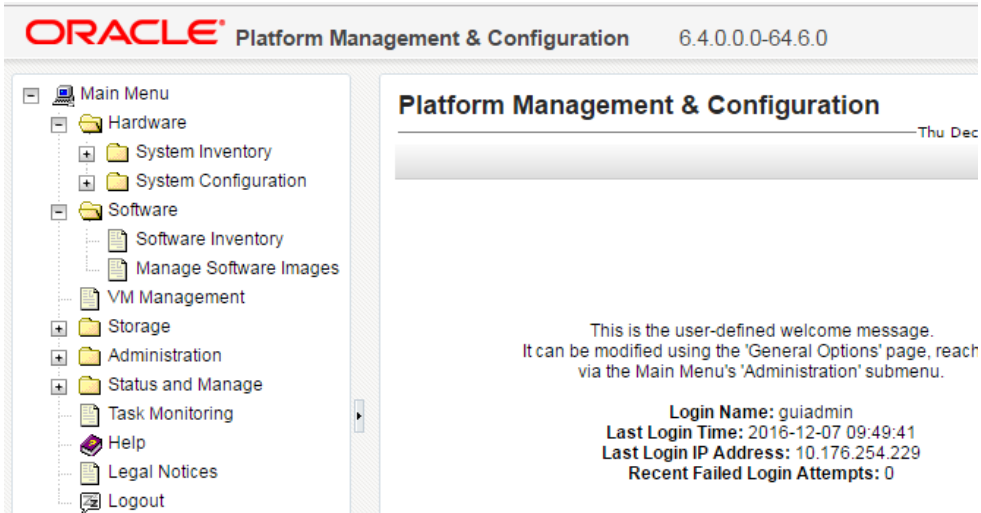
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
<p>4.</p> <p><input type="checkbox"/></p>	<p>PMAC Guest VM:</p> <p>Select the designated DP server blade from the Menu...</p> <p>Main Menu → Hardware → System Inventory → <Cabinet> → <Enclosure> → <Server Blade></p> <p>...as shown on the right.</p>	 <p>The screenshot shows the Oracle Platform Management & Configuration interface. The breadcrumb navigation is 'Main Menu: Hardware -> System Inventory -> Cabinet 505'. The left pane shows a tree view of hardware components under 'Cabinet 505', including various server blades and switches. The right pane displays detailed information for a selected server blade, organized into four sections: Entity Summary, Product Area, Board Area, and Chassis Area. At the bottom, there are buttons for 'Install OS', 'Cold Reset', 'Upgrade', 'Patch', and their respective 'Accept' and 'Reject' options.</p>
<p>5.</p> <p><input type="checkbox"/></p>	<p>PMAC Guest VM:</p> <p>Install the operating system by clicking the "Install OS" dialogue button</p>	 <p>This screenshot is identical to the one in step 4, showing the same navigation path and hardware details. The 'Install OS' button at the bottom of the interface is highlighted, indicating the next step in the procedure.</p>

Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																								
<p>6.</p> <p><input type="checkbox"/></p>	<p>PMAC Guest VM:</p> <p>1) Select the desired TPD Image</p> <p>2) Click the “Start Software Install” dialogue button</p>	<p>Select Image</p> <table border="1"> <thead> <tr> <th>Image Name</th> <th>Type</th> <th>Architecture</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>TPD.install-7.3.0.0.0_88.27.0-OracleLinux6.8-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td>88.27</td> </tr> <tr> <td>TPD.install-7.3.0.0.0_88.28.0-OracleLinux6.8-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td>88.28</td> </tr> <tr> <td>TVOE-3.3.0.0.0_88.27.0-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td>88.27</td> </tr> <tr> <td>TVOE-3.3.0.0.0_88.28.0-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td>88.28</td> </tr> </tbody> </table> <p>Supply Software Install Arguments (Optional)</p> <p>Start Software Install Back</p>	Image Name	Type	Architecture	Description	TPD.install-7.3.0.0.0_88.27.0-OracleLinux6.8-x86_64	Bootable	x86_64	88.27	TPD.install-7.3.0.0.0_88.28.0-OracleLinux6.8-x86_64	Bootable	x86_64	88.28	TVOE-3.3.0.0.0_88.27.0-x86_64	Bootable	x86_64	88.27	TVOE-3.3.0.0.0_88.28.0-x86_64	Bootable	x86_64	88.28				
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<p>7.</p> <p><input type="checkbox"/></p>	<p>PMAC Guest VM:</p> <p>The user should be presented with an “Are you sure you want to install” message box as shown on the right.</p> <p>Click the “OK” dialogue button</p>																									
<p>8.</p> <p><input type="checkbox"/></p>	<p>PMAC Guest VM:</p> <p>Note the task number assigned to SDS Application upgrade. This number will be used to track its progress.</p> <p>This task takes up to ~25 minutes.</p>	<p>Software Install - Select Image</p> <p>Tasks</p> <table border="1"> <thead> <tr> <th>Entity</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>Enc:50502 Bay:2F Guest:quads2</td> <td>Task 164</td> </tr> </tbody> </table> <p>Select Image</p> <table border="1"> <thead> <tr> <th>Image Name</th> <th>Type</th> <th>Architecture</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>TPD.install-7.3.0.0.0_88.27.0-OracleLinux6.8-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td>88.27</td> </tr> <tr> <td>TPD.install-7.3.0.0.0_88.28.0-OracleLinux6.8-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td>88.28</td> </tr> <tr> <td>TVOE-3.3.0.0.0_88.27.0-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td>88.27</td> </tr> <tr> <td>TVOE-3.3.0.0.0_88.28.0-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td>88.28</td> </tr> </tbody> </table>	Entity	Status	Enc:50502 Bay:2F Guest:quads2	Task 164	Image Name	Type	Architecture	Description	TPD.install-7.3.0.0.0_88.27.0-OracleLinux6.8-x86_64	Bootable	x86_64	88.27	TPD.install-7.3.0.0.0_88.28.0-OracleLinux6.8-x86_64	Bootable	x86_64	88.28	TVOE-3.3.0.0.0_88.27.0-x86_64	Bootable	x86_64	88.27	TVOE-3.3.0.0.0_88.28.0-x86_64	Bootable	x86_64	88.28
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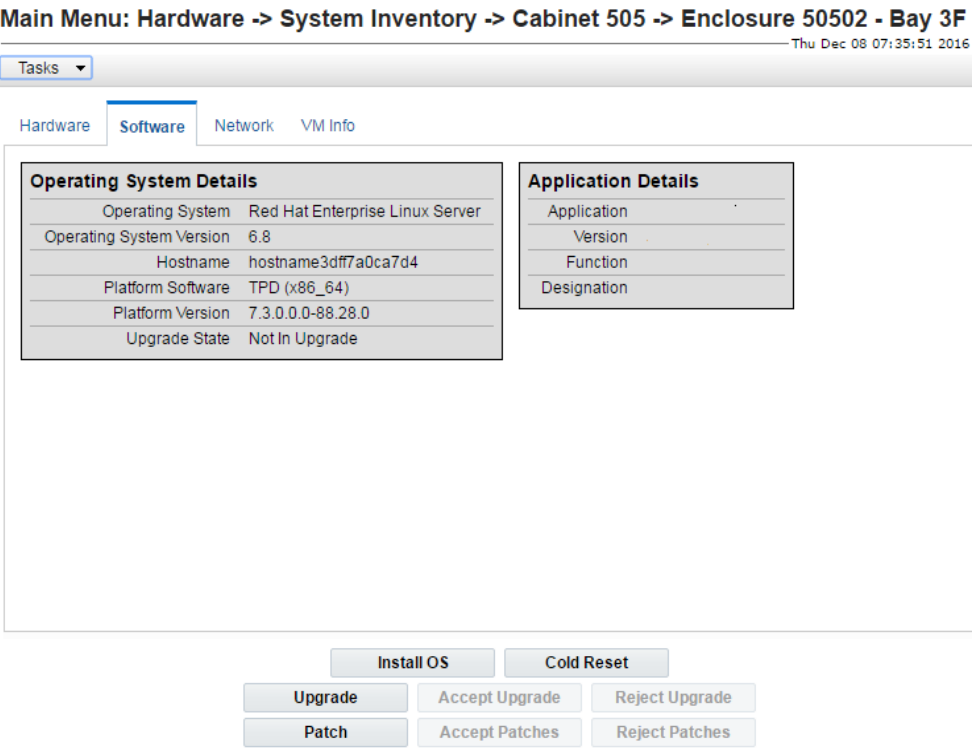
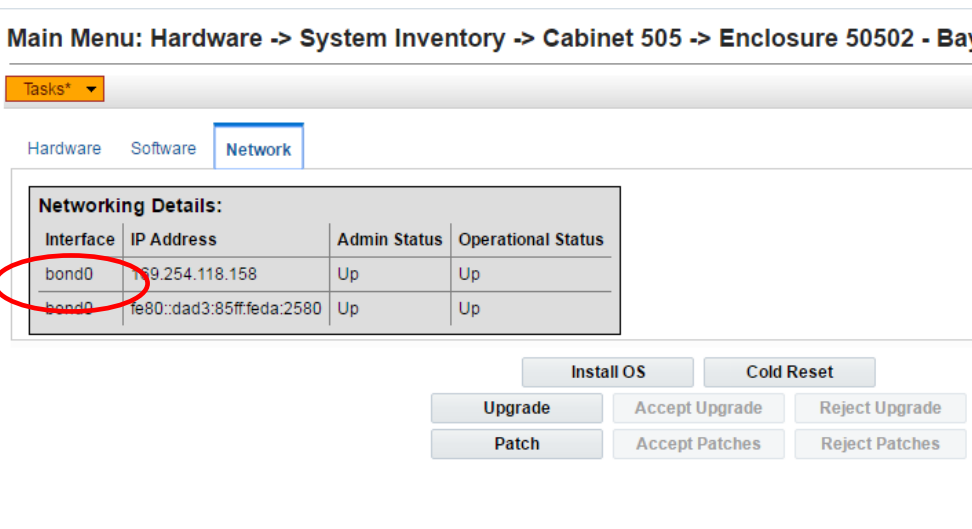
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																																																						
<p>9.</p> <input type="checkbox"/>	<p>Execute "Install OS" for each additional DP Server.</p>	<ul style="list-style-type: none"> Repeat Steps 4 - 8 of this procedure for each additional DP server blade in the SOAM enclosure. 																																																						
<p>10.</p> <input type="checkbox"/>	<p>PMAC Guest VM:</p> <p>1) Select... Main Menu → Task Monitoring ...as shown on the right.</p>	 <p>The screenshot shows the Oracle Platform Management & Configuration interface. On the left is a 'Main Menu' tree with categories like Hardware, Software, Storage, Administration, and Task Monitoring. On the right, the 'Main Menu: Task Monitoring' section is active, displaying a table of tasks.</p> <table border="1"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> </tr> </thead> <tbody> <tr> <td>165</td> <td>Backup PM&C</td> <td></td> </tr> <tr> <td>164</td> <td>Install OS</td> <td>Enc:505 Guest: g</td> </tr> <tr> <td>163</td> <td>Install OS</td> <td>Enc:505 Guest: C</td> </tr> <tr> <td>162</td> <td>Install OS</td> <td>Enc:505 Guest: g</td> </tr> <tr> <td>161</td> <td>Install OS</td> <td>Enc:505 Guest: C</td> </tr> <tr> <td>160</td> <td>Account</td> <td>RMS: RI</td> </tr> </tbody> </table>	ID	Task	Target	165	Backup PM&C		164	Install OS	Enc:505 Guest: g	163	Install OS	Enc:505 Guest: C	162	Install OS	Enc:505 Guest: g	161	Install OS	Enc:505 Guest: C	160	Account	RMS: RI																																	
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<p>11.</p> <input type="checkbox"/>	<p>PMAC Guest VM:</p> <p>Wait till Progress is 100% with a Status of Success and a State of Complete. Then proceed to the next step.</p>	 <p>The screenshot shows a detailed task monitoring table with columns for ID, Task, Target, Status, State, Task Output, Running Time, Start Time, and Progress.</p> <table border="1"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> <th>Status</th> <th>State</th> <th>Task Output</th> <th>Running Time</th> <th>Start Time</th> <th>Progress</th> </tr> </thead> <tbody> <tr> <td>165</td> <td>Backup PM&C</td> <td></td> <td>PM&C Backup successful</td> <td>COMPLETE</td> <td>N/A</td> <td>0:00:16</td> <td>2016-10-01 05:00:01</td> <td>100%</td> </tr> <tr> <td>164</td> <td>Install OS</td> <td>Enc:50502 Bay:1E Guest: guidm52</td> <td>Done: TPO:instab:7.3.0.0.0_88.27.0-OracleLinux6.8-x86_64</td> <td>COMPLETE</td> <td>N/A</td> <td>0:15:24</td> <td>2016-09-30 14:36:16</td> <td>100%</td> </tr> <tr> <td>163</td> <td>Install OS</td> <td>Enc:50502 Bay:1E Guest: CFSH00G</td> <td>Done: TPO:instab:7.3.0.0.0_88.27.0-OracleLinux6.8-x86_64</td> <td>COMPLETE</td> <td>N/A</td> <td>0:17:58</td> <td>2016-09-30 14:36:14</td> <td>100%</td> </tr> <tr> <td>162</td> <td>Install OS</td> <td>Enc:50502 Bay:2E Guest: guidm52</td> <td>Done: TPO:instab:7.3.0.0.0_88.27.0-OracleLinux6.8-x86_64</td> <td>COMPLETE</td> <td>N/A</td> <td>0:15:22</td> <td>2016-09-30 13:53:36</td> <td>100%</td> </tr> <tr> <td>161</td> <td>Install OS</td> <td>Enc:50502 Bay:1E Guest: CFSH00G</td> <td>Done: TPO:instab:7.3.0.0.0_88.27.0-OracleLinux6.8-x86_64</td> <td>COMPLETE</td> <td>N/A</td> <td>0:18:05</td> <td>2016-09-30 13:53:04</td> <td>100%</td> </tr> </tbody> </table>	ID	Task	Target	Status	State	Task Output	Running Time	Start Time	Progress	165	Backup PM&C		PM&C Backup successful	COMPLETE	N/A	0:00:16	2016-10-01 05:00:01	100%	164	Install OS	Enc:50502 Bay:1E Guest: guidm52	Done: TPO:instab:7.3.0.0.0_88.27.0-OracleLinux6.8-x86_64	COMPLETE	N/A	0:15:24	2016-09-30 14:36:16	100%	163	Install OS	Enc:50502 Bay:1E Guest: CFSH00G	Done: TPO:instab:7.3.0.0.0_88.27.0-OracleLinux6.8-x86_64	COMPLETE	N/A	0:17:58	2016-09-30 14:36:14	100%	162	Install OS	Enc:50502 Bay:2E Guest: guidm52	Done: TPO:instab:7.3.0.0.0_88.27.0-OracleLinux6.8-x86_64	COMPLETE	N/A	0:15:22	2016-09-30 13:53:36	100%	161	Install OS	Enc:50502 Bay:1E Guest: CFSH00G	Done: TPO:instab:7.3.0.0.0_88.27.0-OracleLinux6.8-x86_64	COMPLETE	N/A	0:18:05	2016-09-30 13:53:04	100%
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<p>12.</p> <input type="checkbox"/>	<p>PMAC Guest VM:</p> <p>Re-select the designated DP server blade from the Menu... Main Menu → Hardware → System Inventory → <Cabinet> → <Enclosure> → <Server Blade> ...as shown on the right.</p>	 <p>The screenshot shows the Oracle Platform Management & Configuration interface with the 'Main Menu' tree expanded to 'Hardware' > 'System Inventory' > 'Cabinet' > 'Enclosure' > 'Server Blade'. A welcome message is displayed on the right side of the page.</p> <p>This is the user-defined welcome message. It can be modified using the 'General Options' page, reach via the Main Menu's 'Administration' submenu.</p> <p>Login Name: guidadmin Last Login Time: 2016-12-07 09:49:41 Last Login IP Address: 10.176.254.229 Recent Failed Login Attempts: 0</p>																																																						

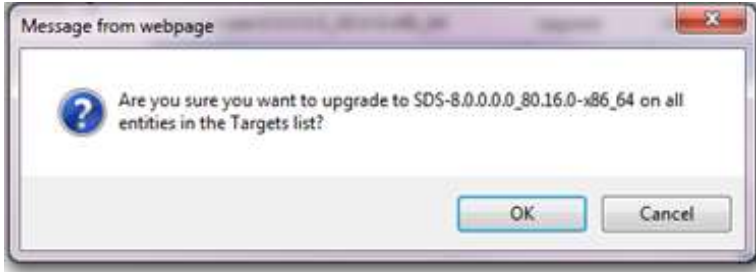
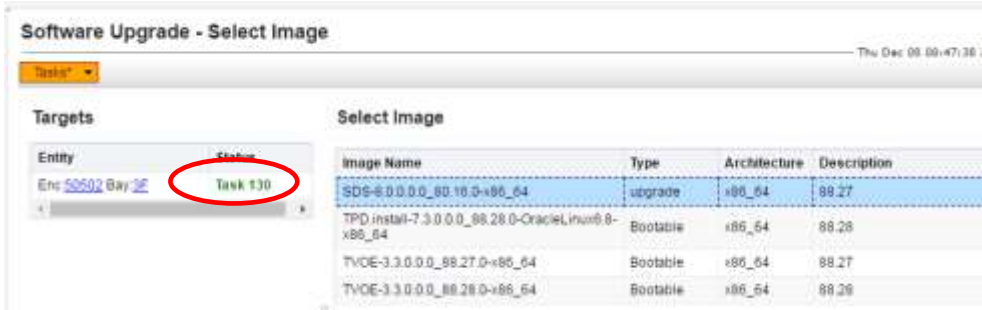
Procedure 10: Installing the Data Processor blade (All SOAM sites)

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<p>13.</p> <p><input type="checkbox"/></p>	<p>PMAC Guest VM:</p> <p>Select the "Software" tab.</p>	<p>Main Menu: Hardware -> System Inventory -> Cabinet 505 -> Enclosure 50502 - Bay 3F</p> <p>Tasks <input type="button" value="v"/></p> <p>Hardware Software Network VM Info</p> <table border="1"> <thead> <tr> <th colspan="2">Operating System Details</th> <th colspan="2">Application Details</th> </tr> </thead> <tbody> <tr> <td>Operating System</td> <td>Red Hat Enterprise Linux Server</td> <td>Application</td> <td></td> </tr> <tr> <td>Operating System Version</td> <td>6.8</td> <td>Version</td> <td></td> </tr> <tr> <td>Hostname</td> <td>hostname3dff7a0ca7d4</td> <td>Function</td> <td></td> </tr> <tr> <td>Platform Software</td> <td>TPD (x86_64)</td> <td>Designation</td> <td></td> </tr> <tr> <td>Platform Version</td> <td>7.3.0.0.0-88.28.0</td> <td></td> <td></td> </tr> <tr> <td>Upgrade State</td> <td>Not In Upgrade</td> <td></td> <td></td> </tr> </tbody> </table> <p> <input type="button" value="Install OS"/> <input type="button" value="Cold Reset"/> </p> <p> <input type="button" value="Upgrade"/> <input type="button" value="Accept Upgrade"/> <input type="button" value="Reject Upgrade"/> </p> <p> <input type="button" value="Patch"/> <input type="button" value="Accept Patches"/> <input type="button" value="Reject Patches"/> </p>	Operating System Details		Application Details		Operating System	Red Hat Enterprise Linux Server	Application		Operating System Version	6.8	Version		Hostname	hostname3dff7a0ca7d4	Function		Platform Software	TPD (x86_64)	Designation		Platform Version	7.3.0.0.0-88.28.0			Upgrade State	Not In Upgrade		
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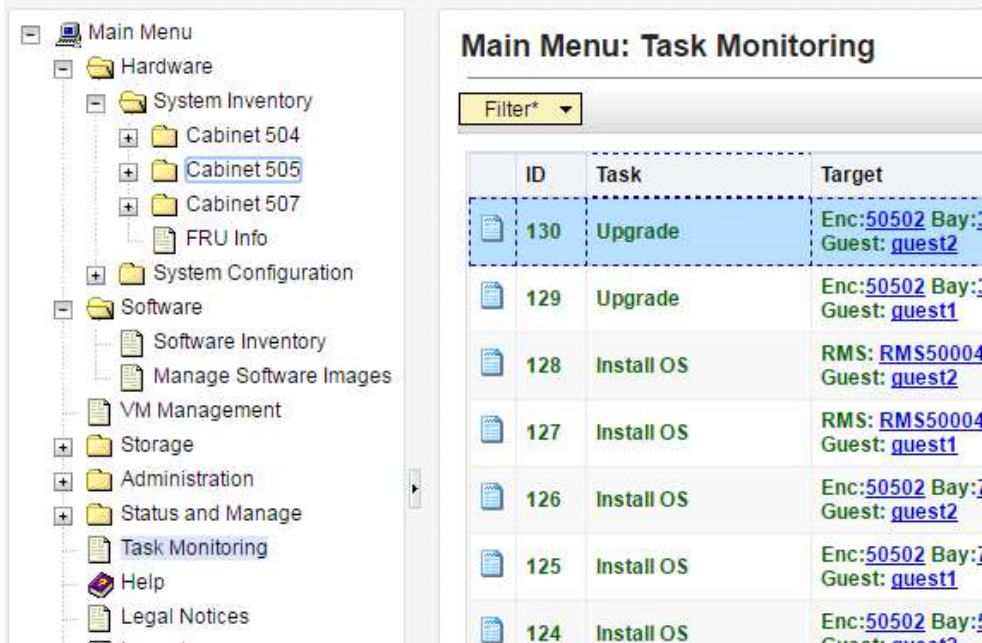
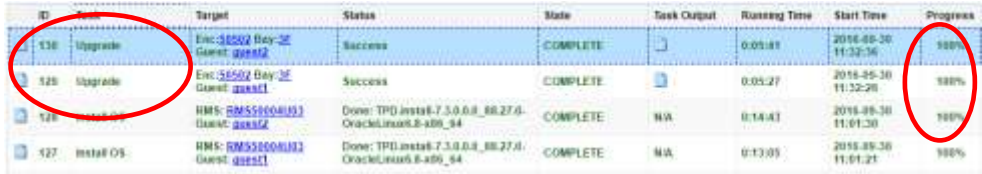
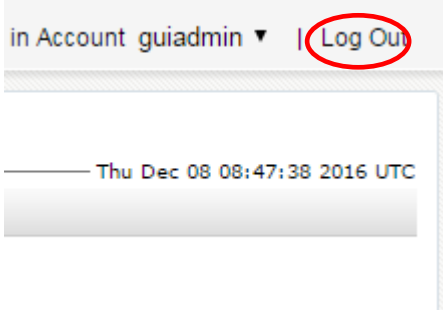
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Step	Procedure	Result																								
<p>14.</p> <p><input type="checkbox"/></p>	<p>PMAC Guest VM:</p> <p>1) Verify the correct TPD is shown.</p> <p>2) Verify “Application Details” are blank.</p>	 <p>Main Menu: Hardware -> System Inventory -> Cabinet 505 -> Enclosure 50502 - Bay 3F <small>— Thu Dec 08 07:35:51 2016</small></p> <p>Tasks ▾</p> <p>Hardware Software Network VM Info</p> <table border="1"> <thead> <tr> <th colspan="2">Operating System Details</th> </tr> </thead> <tbody> <tr> <td>Operating System</td> <td>Red Hat Enterprise Linux Server</td> </tr> <tr> <td>Operating System Version</td> <td>6.8</td> </tr> <tr> <td>Hostname</td> <td>hostname3dff7a0ca7d4</td> </tr> <tr> <td>Platform Software</td> <td>TPD (x86_64)</td> </tr> <tr> <td>Platform Version</td> <td>7.3.0.0.0-88.28.0</td> </tr> <tr> <td>Upgrade State</td> <td>Not In Upgrade</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="2">Application Details</th> </tr> </thead> <tbody> <tr> <td>Application</td> <td></td> </tr> <tr> <td>Version</td> <td></td> </tr> <tr> <td>Function</td> <td></td> </tr> <tr> <td>Designation</td> <td></td> </tr> </tbody> </table> <p>Install OS Cold Reset</p> <p>Upgrade Accept Upgrade Reject Upgrade</p> <p>Patch Accept Patches Reject Patches</p>	Operating System Details		Operating System	Red Hat Enterprise Linux Server	Operating System Version	6.8	Hostname	hostname3dff7a0ca7d4	Platform Software	TPD (x86_64)	Platform Version	7.3.0.0.0-88.28.0	Upgrade State	Not In Upgrade	Application Details		Application		Version		Function		Designation	
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<p>15.</p> <p><input type="checkbox"/></p>	<p>PMAC Guest VM:</p> <p>1) Select the “Network” tab.</p> <p>2) Make note of the control IP address for this DP, called “bond0”; it will be referenced later</p> <p>3) Select the “Upgrade” button.</p>	 <p>Main Menu: Hardware -> System Inventory -> Cabinet 505 -> Enclosure 50502 - Bay 3F <small>— Thu Dec 08 07:35:51 2016</small></p> <p>Tasks* ▾</p> <p>Hardware Software Network</p> <table border="1"> <thead> <tr> <th colspan="4">Networking Details:</th> </tr> <tr> <th>Interface</th> <th>IP Address</th> <th>Admin Status</th> <th>Operational Status</th> </tr> </thead> <tbody> <tr> <td>bond0</td> <td>199.254.118.158</td> <td>Up</td> <td>Up</td> </tr> <tr> <td>bond0</td> <td>fe80::dad3:85ff:feda:2580</td> <td>Up</td> <td>Up</td> </tr> </tbody> </table> <p>Install OS Cold Reset</p> <p>Upgrade Accept Upgrade Reject Upgrade</p> <p>Patch Accept Patches Reject Patches</p>	Networking Details:				Interface	IP Address	Admin Status	Operational Status	bond0	199.254.118.158	Up	Up	bond0	fe80::dad3:85ff:feda:2580	Up	Up								
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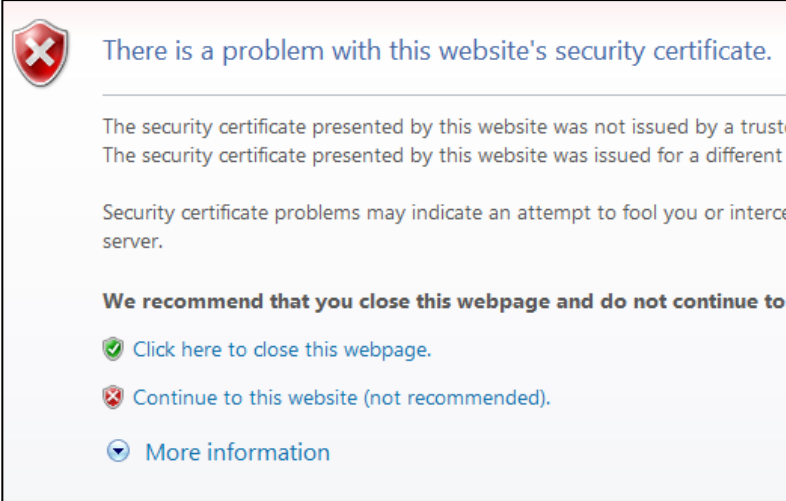
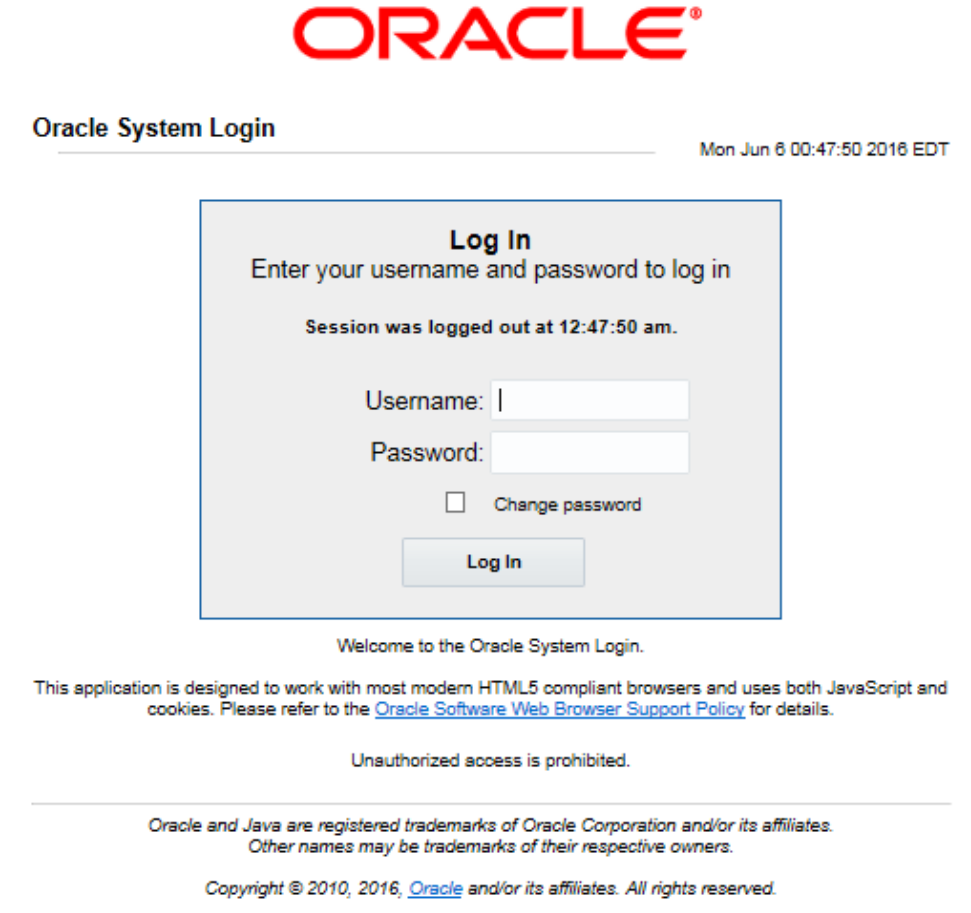
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																								
<p>16.</p> <p><input type="checkbox"/></p>	<p>PMAC Guest VM:</p> <p>1) Select the correct SDS version from the “Image Name” list. The line entry should now be highlighted.</p> <p>2) Select the “Start Software Upgrade” dialogue button</p>	<p>Select Image</p> <table border="1"> <thead> <tr> <th>Image Name</th> <th>Type</th> <th>Architecture</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>oracleGuest-8.0.0.0.0_80.8.0-x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td></td> </tr> <tr> <td>SDS-8.0.0.0.0_80.16.0-x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td></td> </tr> <tr> <td>TPD.install-7.0.3.0.0_86.46.0-OracleLinux6.7-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td></td> </tr> <tr> <td>TPD.install-7.3.0.0.0_88.28.0-OracleLinux6.8-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td></td> </tr> <tr> <td>TPD.install-7.3.0.0.0_88.30.0-OracleLinux6.8-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td></td> </tr> </tbody> </table> <p>Supply Software Upgrade Arguments (Optional)</p> <p>Start Software Upgrade Back</p>	Image Name	Type	Architecture	Description	oracleGuest-8.0.0.0.0_80.8.0-x86_64	Upgrade	x86_64		SDS-8.0.0.0.0_80.16.0-x86_64	Upgrade	x86_64		TPD.install-7.0.3.0.0_86.46.0-OracleLinux6.7-x86_64	Bootable	x86_64		TPD.install-7.3.0.0.0_88.28.0-OracleLinux6.8-x86_64	Bootable	x86_64		TPD.install-7.3.0.0.0_88.30.0-OracleLinux6.8-x86_64	Bootable	x86_64	
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<p>17.</p> <p><input type="checkbox"/></p>	<p>PMAC Guest VM:</p> <p>The user should be presented with an “Are you sure you want to upgrade” message boxas shown on the right.</p> <p>Click the “OK” dialogue button.</p>																									
<p>18.</p> <p><input type="checkbox"/></p>	<p>PMAC Guest VM:</p> <p>Note the task number assigned to upgrade SDS application. This number will be used to track its progress.</p> <p>This task takes up to ~20 minutes.</p>																									
<p>19.</p> <p><input type="checkbox"/></p>	<p>Install SDS SW on each remaining DP server blade.</p>	<ul style="list-style-type: none"> Repeat Steps 10 - 18 of this procedure for each additional DP server blade installed in the SOAM enclosure. 																								


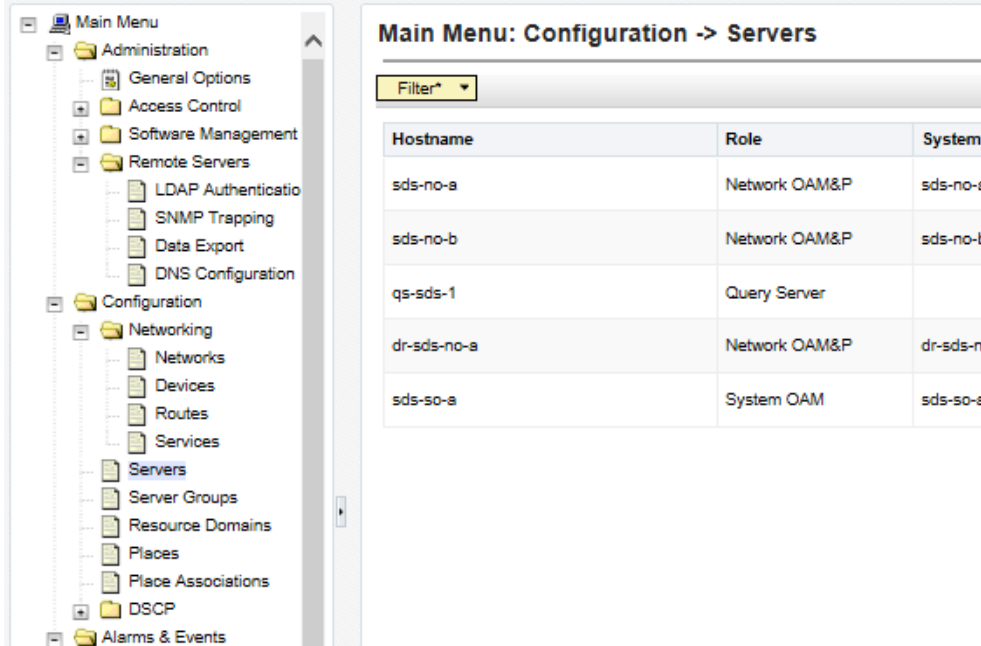
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																																													
<p>20.</p> <p><input type="checkbox"/></p>	<p>PMAC Guest VM:</p> <p>Select...</p> <p>Main Menu → Task Monitoring</p> <p>...as shown on the right.</p>	 <p>The screenshot shows the 'Main Menu' navigation tree on the left with 'Task Monitoring' selected. On the right, the 'Main Menu: Task Monitoring' page is displayed, featuring a table with columns for ID, Task, and Target. The table lists several tasks, with ID 130 highlighted.</p> <table border="1"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> </tr> </thead> <tbody> <tr> <td>130</td> <td>Upgrade</td> <td>Enc:50502 Bay:; Guest: guest2</td> </tr> <tr> <td>129</td> <td>Upgrade</td> <td>Enc:50502 Bay:; Guest: guest1</td> </tr> <tr> <td>128</td> <td>Install OS</td> <td>RMS: RMS50004 Guest: guest2</td> </tr> <tr> <td>127</td> <td>Install OS</td> <td>RMS: RMS50004 Guest: guest1</td> </tr> <tr> <td>126</td> <td>Install OS</td> <td>Enc:50502 Bay:; Guest: guest2</td> </tr> <tr> <td>125</td> <td>Install OS</td> <td>Enc:50502 Bay:; Guest: guest1</td> </tr> <tr> <td>124</td> <td>Install OS</td> <td>Enc:50502 Bay:; Guest: guest2</td> </tr> </tbody> </table>	ID	Task	Target	130	Upgrade	Enc:50502 Bay:; Guest: guest2	129	Upgrade	Enc:50502 Bay:; Guest: guest1	128	Install OS	RMS: RMS50004 Guest: guest2	127	Install OS	RMS: RMS50004 Guest: guest1	126	Install OS	Enc:50502 Bay:; Guest: guest2	125	Install OS	Enc:50502 Bay:; Guest: guest1	124	Install OS	Enc:50502 Bay:; Guest: guest2																					
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<p>21.</p> <p><input type="checkbox"/></p>	<p>PMAC Guest VM:</p> <p>Wait till Progress is 100% with a Status of Success and a State of Complete.</p> <p>.... Then proceed to the next step.</p>	 <p>The screenshot shows a detailed view of the task monitoring table. The 'Progress' column for tasks 130 and 129 is highlighted with red circles, showing 100% completion. The 'Status' column for these tasks shows 'Success'.</p> <table border="1"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> <th>Status</th> <th>State</th> <th>Task Output</th> <th>Running Time</th> <th>Start Time</th> <th>Progress</th> </tr> </thead> <tbody> <tr> <td>130</td> <td>Upgrade</td> <td>Enc:50502 Bay:; Guest: guest2</td> <td>Success</td> <td>COMPLETE</td> <td></td> <td>0:05:41</td> <td>2016-08-30 11:32:36</td> <td>100%</td> </tr> <tr> <td>129</td> <td>Upgrade</td> <td>Enc:50502 Bay:; Guest: guest1</td> <td>Success</td> <td>COMPLETE</td> <td></td> <td>0:05:27</td> <td>2016-08-30 11:32:28</td> <td>100%</td> </tr> <tr> <td>128</td> <td>Install OS</td> <td>RMS: RMS50004; Guest: guest2</td> <td>Done: TPD Instal: 7.3.0.0.8_8827.0-OracleLinux.8-U8_34</td> <td>COMPLETE</td> <td>N/A</td> <td>0:14:43</td> <td>2016-08-30 11:01:30</td> <td>100%</td> </tr> <tr> <td>127</td> <td>Install OS</td> <td>RMS: RMS50004; Guest: guest1</td> <td>Done: TPD Instal: 7.3.0.0.8_8827.0-OracleLinux.8-U8_34</td> <td>COMPLETE</td> <td>N/A</td> <td>0:13:05</td> <td>2016-08-30 11:01:21</td> <td>100%</td> </tr> </tbody> </table>	ID	Task	Target	Status	State	Task Output	Running Time	Start Time	Progress	130	Upgrade	Enc:50502 Bay:; Guest: guest2	Success	COMPLETE		0:05:41	2016-08-30 11:32:36	100%	129	Upgrade	Enc:50502 Bay:; Guest: guest1	Success	COMPLETE		0:05:27	2016-08-30 11:32:28	100%	128	Install OS	RMS: RMS50004; Guest: guest2	Done: TPD Instal: 7.3.0.0.8_8827.0-OracleLinux.8-U8_34	COMPLETE	N/A	0:14:43	2016-08-30 11:01:30	100%	127	Install OS	RMS: RMS50004; Guest: guest1	Done: TPD Instal: 7.3.0.0.8_8827.0-OracleLinux.8-U8_34	COMPLETE	N/A	0:13:05	2016-08-30 11:01:21	100%
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<p>22.</p> <p><input type="checkbox"/></p>	<p>PMAC Guest VM::</p> <p>Click the “Logout” link on the PMAC server GUI.</p>	 <p>The screenshot shows the top navigation bar of the PMAC server GUI. The 'Log Out' link is circled in red. Below the navigation bar, the current date and time are displayed as 'Thu Dec 08 08:47:38 2016 UTC'.</p>																																													

Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
<p>23.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Launch an approved web browser and connect to the XMI Virtual IP address (VIP) assigned to Active SDS site</p> <p>NOTE: <i>If presented with the “security certificate” warning screen shown to the right, choose the following option: “Continue to this website (not recommended)”.</i></p>	
<p>24.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The user should be presented the login screen shown on the right.</p> <p>Login to the GUI using the default user and password.</p>	

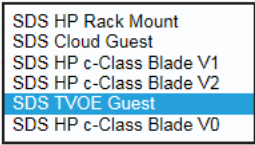
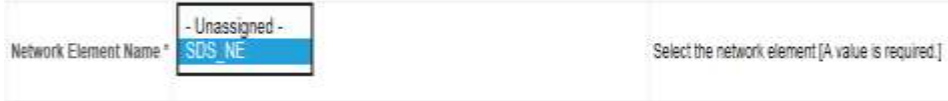
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																		
<p>25.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The user should be presented the SDS Main Menu as shown on the right.</p>																			
<p>26.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) Select... Main Menu → Configuration → Servers ...as shown on the right</p> <p>2) Select the “Insert” dialogue button.</p>	 <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>System</th> </tr> </thead> <tbody> <tr> <td>sds-no-a</td> <td>Network OAM&P</td> <td>sds-no-s</td> </tr> <tr> <td>sds-no-b</td> <td>Network OAM&P</td> <td>sds-no-t</td> </tr> <tr> <td>qs-sds-1</td> <td>Query Server</td> <td></td> </tr> <tr> <td>dr-sds-no-a</td> <td>Network OAM&P</td> <td>dr-sds-n</td> </tr> <tr> <td>sds-so-a</td> <td>System OAM</td> <td>sds-so-s</td> </tr> </tbody> </table>	Hostname	Role	System	sds-no-a	Network OAM&P	sds-no-s	sds-no-b	Network OAM&P	sds-no-t	qs-sds-1	Query Server		dr-sds-no-a	Network OAM&P	dr-sds-n	sds-so-a	System OAM	sds-so-s
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Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result														
<p>27.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>The user is now presented with the “Adding a new server” configuration screen.</p>	<p>Main Menu: Configuration -> Servers [Insert]</p> <hr/> <p>Adding a new server</p> <table border="1"> <thead> <tr> <th>Attribute</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>Hostname *</td> <td><input type="text"/></td> </tr> <tr> <td>Role *</td> <td>- Select Role - <input type="button" value="v"/></td> </tr> <tr> <td>System ID</td> <td><input type="text"/></td> </tr> <tr> <td>Hardware Profile</td> <td>SDS HP c-Class Blade V1 <input type="button" value="v"/></td> </tr> <tr> <td>Network Element Name *</td> <td>- Unassigned - <input type="button" value="v"/></td> </tr> <tr> <td>Location</td> <td><input type="text"/></td> </tr> </tbody> </table> <p><input type="button" value="Ok"/> <input type="button" value="Apply"/> <input type="button" value="Cancel"/></p>	Attribute	Value	Hostname *	<input type="text"/>	Role *	- Select Role - <input type="button" value="v"/>	System ID	<input type="text"/>	Hardware Profile	SDS HP c-Class Blade V1 <input type="button" value="v"/>	Network Element Name *	- Unassigned - <input type="button" value="v"/>	Location	<input type="text"/>
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Location	<input type="text"/>															
<p>28.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Input the assigned “hostname” for the Database Processor (DP).</p>	<p>Adding a new server</p> <table border="1"> <thead> <tr> <th>Attribute</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Hostname *</td> <td>dp-sds-1</td> <td>Unique name for the server. [Default = n/a. Range = A 20-character string. Valid characters are alphanumeric and minus sign. Must start with an alphanumeric and end with an alphanumeric.] [A value is required.]</td> </tr> </tbody> </table>	Attribute	Value	Description	Hostname *	dp-sds-1	Unique name for the server. [Default = n/a. Range = A 20-character string. Valid characters are alphanumeric and minus sign. Must start with an alphanumeric and end with an alphanumeric.] [A value is required.]								
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<p>29.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Select “MP” for the server Role from the pull-down menu.</p>	<p>Role *</p> <div style="border: 1px solid black; padding: 2px;"> <p>- Select Role - NETWORK OAM&P SYSTEM OAM MP QUERY SERVER</p> </div> <p>end with an alphanumeric. [A value is required.]</p> <p>Select the function of the server [A value is required.]</p>														

Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																					
<p>30.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Using the chart provided, select the DP Hardware Profile which is appropriate to your installation from the pull-down menu.</p> <p>NOTE: <i>The choice of DP HW Profile is dictated by the placement of the XMI switch pair in the c-Class enclosure.</i></p>	 <p>Hardware Profile</p> <table border="1"> <thead> <tr> <th>DP HW Profile</th> <th>Network</th> <th>Bonded Interfaces</th> <th>Comments</th> </tr> </thead> <tbody> <tr> <td rowspan="2">SDS HP c-Class Blade V0</td> <td>IMI</td> <td rowspan="2">Bond0 (eth01, eth02)</td> <td rowspan="2">Use when both XMI and IMI Are to be VLAN tagged.</td> </tr> <tr> <td>XMI</td> </tr> <tr> <td rowspan="2">SDS HP c-Class Blade V1</td> <td>IMI</td> <td>Bond0 (eth01, eth02)</td> <td rowspan="2">Use when XMI enclosure switches are connected to DP blade mezzanine card ports eth23 / eth24.</td> </tr> <tr> <td>XMI</td> <td>bond1 (eth23, eth24)</td> </tr> <tr> <td rowspan="2">SDS HP c-Class Blade V2</td> <td>IMI</td> <td>Bond0 (eth01, eth02)</td> <td rowspan="2">Use when XMI enclosure switches are connected to DP blade mezzanine card ports eth21 / eth22.</td> </tr> <tr> <td>XMI</td> <td>bond1 (eth21, eth22)</td> </tr> </tbody> </table>	DP HW Profile	Network	Bonded Interfaces	Comments	SDS HP c-Class Blade V0	IMI	Bond0 (eth01, eth02)	Use when both XMI and IMI Are to be VLAN tagged.	XMI	SDS HP c-Class Blade V1	IMI	Bond0 (eth01, eth02)	Use when XMI enclosure switches are connected to DP blade mezzanine card ports eth23 / eth24.	XMI	bond1 (eth23, eth24)	SDS HP c-Class Blade V2	IMI	Bond0 (eth01, eth02)	Use when XMI enclosure switches are connected to DP blade mezzanine card ports eth21 / eth22.	XMI	bond1 (eth21, eth22)
DP HW Profile	Network	Bonded Interfaces	Comments																				
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SDS HP c-Class Blade V2	IMI	Bond0 (eth01, eth02)	Use when XMI enclosure switches are connected to DP blade mezzanine card ports eth21 / eth22.																				
	XMI	bond1 (eth21, eth22)																					
<p>31.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Select the Network Element Name of the SOAM site where the DP is physically located from the list of available NEs in the pull-down menu</p>	 <p>Network Element Name *</p> <p>NOTE: <i>After the Network Element Name is selected, the Interfaces fields will be displayed, as seen in Step 33</i></p>																					
<p>32.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Enter the site location.</p> <p>NOTE: <i>Location is an optional field.</i></p>	<p>Location</p> <p>bangalore x</p> <p>Location description [Default = "", R string.]</p>																					

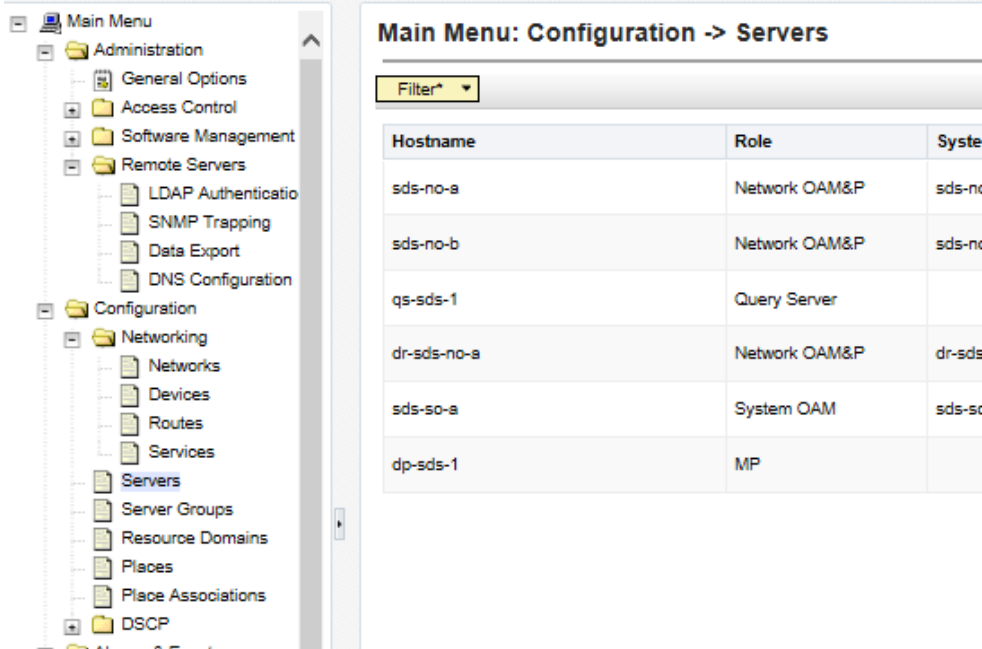
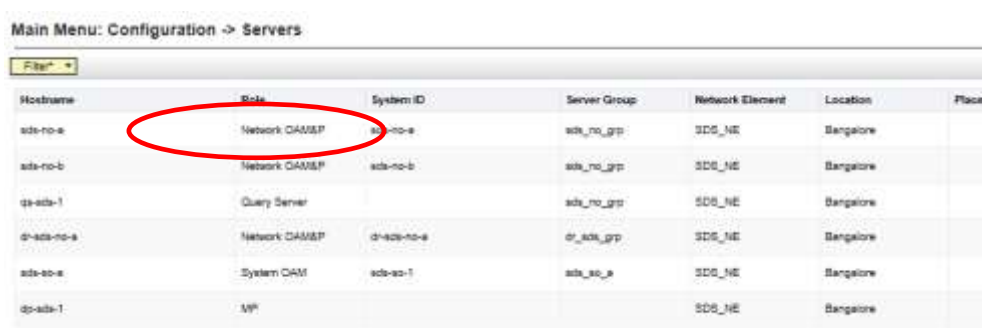
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result													
<p>33.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) Enter the IMI IP address for the DP Server.</p> <p>2) Set the IMI Interface to “bond0” and “check” the VLAN checkbox.</p>	 <table border="1"> <thead> <tr> <th>DP Server</th> <th>Network</th> <th>Interface</th> <th>VLAN Checkbox</th> </tr> </thead> <tbody> <tr> <td>DP</td> <td>IMI</td> <td>bond0</td> <td></td> </tr> </tbody> </table>	DP Server	Network	Interface	VLAN Checkbox	DP	IMI	bond0						
DP Server	Network	Interface	VLAN Checkbox												
DP	IMI	bond0													
<p>34.</p>	<p>1) Enter the customer assigned XMI IP address for the DP Server.</p> <p>Layer 3 <i>(No VLAN tagging used for XMI)</i></p> <p>2) Set the XMI Interface to “bond1” and “DO NOT check” the VLAN checkbox. - OR -</p> <p>Layer 2 <i>(VLAN tagging used for XMI)</i></p> <p>2) Set the XMI Interface to “bond0” and “check” the VLAN checkbox.</p>	<table border="1"> <thead> <tr> <th>DP Server</th> <th>Network</th> <th>VLAN tagging (on XMI network)</th> <th>Interface</th> <th>VLAN Checkbox</th> </tr> </thead> <tbody> <tr> <td rowspan="2">DP</td> <td rowspan="2">XMI</td> <td>No</td> <td>bond1</td> <td></td> </tr> <tr> <td>Yes</td> <td>bond0</td> <td></td> </tr> </tbody> </table> <p>!!! CAUTION!!!</p> <p><i>It is crucial that the correct network configuration be selected in Steps 33 - 34 of this procedure. Choosing an incorrect configuration will result in the need to re-install the OS and restart the DP Server installation procedure over from the beginning.</i></p>	DP Server	Network	VLAN tagging (on XMI network)	Interface	VLAN Checkbox	DP	XMI	No	bond1		Yes	bond0	
DP Server	Network	VLAN tagging (on XMI network)	Interface	VLAN Checkbox											
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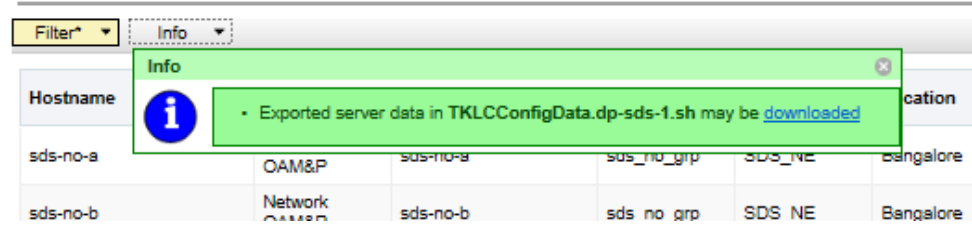
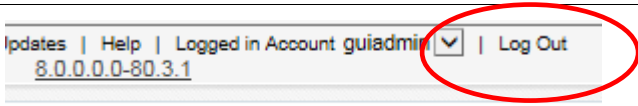
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																											
<p>35.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) Click the “NTP Servers:” “Add” dialogue button.</p> <p>2) Enter the NTP Server IP Address for an NTP Server.</p> <p>3) Enter 3 NTP Server IP address, repeat (1) and (2) to enter it.</p> <p>4) Optionally, click the “Prefer” checkbox to prefer one NTP Server over the other.</p>	<p>NTP Servers:</p> <table border="1"> <thead> <tr> <th>NTP Server IP Address</th> <th>Prefer</th> <th></th> </tr> </thead> <tbody> <tr> <td>10.250.32.10</td> <td><input type="checkbox"/></td> <td>Remove</td> </tr> <tr> <td>10.240.21.191</td> <td><input type="checkbox"/></td> <td>Remove</td> </tr> <tr> <td>10.240.21.192</td> <td><input type="checkbox"/></td> <td>Remove</td> </tr> <tr> <td>10.240.21.193</td> <td><input checked="" type="checkbox"/></td> <td>Remove</td> </tr> </tbody> </table> <p>NTP Servers:</p> <table border="1"> <thead> <tr> <th>NTP Server IP Address</th> <th>Prefer</th> <th></th> </tr> </thead> <tbody> <tr> <td>10.250.32.10</td> <td><input type="checkbox"/></td> <td>Remove</td> </tr> <tr> <td>10.250.32.51</td> <td><input type="checkbox"/></td> <td>Remove</td> </tr> <tr> <td>10.250.32.129</td> <td><input checked="" type="checkbox"/></td> <td>Remove</td> </tr> </tbody> </table>	NTP Server IP Address	Prefer		10.250.32.10	<input type="checkbox"/>	Remove	10.240.21.191	<input type="checkbox"/>	Remove	10.240.21.192	<input type="checkbox"/>	Remove	10.240.21.193	<input checked="" type="checkbox"/>	Remove	NTP Server IP Address	Prefer		10.250.32.10	<input type="checkbox"/>	Remove	10.250.32.51	<input type="checkbox"/>	Remove	10.250.32.129	<input checked="" type="checkbox"/>	Remove
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<p>36.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Click the “Apply” dialogue button...</p>	<p>Network: XMI (10.240.221.64/27) IP Address: 10.240.221.67 Interface: xmi VLAN (103)</p> <p>Network: IMI (169.254.4.0/24) IP Address: 169.254.4.2 Interface: imi VLAN (2)</p> <p>NTP Servers:</p> <table border="1"> <thead> <tr> <th>NTP Server IP Address</th> <th>Prefer</th> <th></th> </tr> </thead> <tbody> <tr> <td>10.250.32.10</td> <td><input type="checkbox"/></td> <td>Remove</td> </tr> <tr> <td>10.250.32.51</td> <td><input type="checkbox"/></td> <td>Remove</td> </tr> <tr> <td>10.250.32.129</td> <td><input checked="" type="checkbox"/></td> <td>Remove</td> </tr> </tbody> </table> <p>Apply Cancel</p>	NTP Server IP Address	Prefer		10.250.32.10	<input type="checkbox"/>	Remove	10.250.32.51	<input type="checkbox"/>	Remove	10.250.32.129	<input checked="" type="checkbox"/>	Remove															
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<p>37.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>If the values provided match the network ranges assigned to the NE, the user must select the ‘Info’ box to receive a banner information message showing that the data has been committed to the DB.</p>	<p>Main Menu: Configuration -> Servers [Insert]</p> <p>Info* Info Data committed!</p> <table border="1"> <thead> <tr> <th>Attribute</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>Hostname *</td> <td>sds-sc-a</td> </tr> </tbody> </table>	Attribute	Value	Hostname *	sds-sc-a																							
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Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																																																	
<p>38.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu → Configuration → Servers</p> <p>...as shown on the right.</p>	 <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>System ID</th> </tr> </thead> <tbody> <tr> <td>sds-no-a</td> <td>Network OAM&P</td> <td>sds-nc</td> </tr> <tr> <td>sds-no-b</td> <td>Network OAM&P</td> <td>sds-nc</td> </tr> <tr> <td>qs-sds-1</td> <td>Query Server</td> <td></td> </tr> <tr> <td>dr-sds-no-a</td> <td>Network OAM&P</td> <td>dr-sds</td> </tr> <tr> <td>sds-so-a</td> <td>System OAM</td> <td>sds-sc</td> </tr> <tr> <td>dp-sds-1</td> <td>MP</td> <td></td> </tr> </tbody> </table>	Hostname	Role	System ID	sds-no-a	Network OAM&P	sds-nc	sds-no-b	Network OAM&P	sds-nc	qs-sds-1	Query Server		dr-sds-no-a	Network OAM&P	dr-sds	sds-so-a	System OAM	sds-sc	dp-sds-1	MP																													
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<p>39.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>On the “Configuration → Servers” screen, find the newly added DP server in the list.</p> <p>Note: The DP server will have a “MP” role.</p>	 <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>System ID</th> <th>Server Group</th> <th>Network Element</th> <th>Location</th> <th>Place</th> </tr> </thead> <tbody> <tr> <td>sds-no-a</td> <td>Network OAM&P</td> <td>sds-no-a</td> <td>sds_no_grp</td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> </tr> <tr> <td>sds-no-b</td> <td>Network OAM&P</td> <td>sds-no-b</td> <td>sds_no_grp</td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> </tr> <tr> <td>qs-sds-1</td> <td>Query Server</td> <td></td> <td>sds_no_grp</td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> </tr> <tr> <td>dr-sds-no-a</td> <td>Network OAM&P</td> <td>dr-sds-no-a</td> <td>dr_sds_grp</td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> </tr> <tr> <td>sds-so-a</td> <td>System OAM</td> <td>sds-so-1</td> <td>sds_so_a</td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> </tr> <tr> <td>dp-sds-1</td> <td>MP</td> <td></td> <td></td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> </tr> </tbody> </table>	Hostname	Role	System ID	Server Group	Network Element	Location	Place	sds-no-a	Network OAM&P	sds-no-a	sds_no_grp	SDS_NE	Bangalore		sds-no-b	Network OAM&P	sds-no-b	sds_no_grp	SDS_NE	Bangalore		qs-sds-1	Query Server		sds_no_grp	SDS_NE	Bangalore		dr-sds-no-a	Network OAM&P	dr-sds-no-a	dr_sds_grp	SDS_NE	Bangalore		sds-so-a	System OAM	sds-so-1	sds_so_a	SDS_NE	Bangalore		dp-sds-1	MP			SDS_NE	Bangalore	
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Step	Procedure	Result																																																	
40. <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>1) Using the mouse, select the newly added DP server entry. The line entry containing the server with a “MP” role should now be highlighted.</p> <p>2) Click the “Export” dialogue button from the bottom left corner of the screen.</p>	<table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>System ID</th> <th>Server Group</th> <th>Network Element</th> <th>Location</th> <th>Place</th> </tr> </thead> <tbody> <tr> <td>sds-no-a</td> <td>Network OAM&P</td> <td>sds-no-a</td> <td>sds_no_grp</td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> </tr> <tr> <td>sds-no-b</td> <td>Network OAM&P</td> <td>sds-no-b</td> <td>sds_no_grp</td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> </tr> <tr> <td>qs-sds-1</td> <td>Query Server</td> <td></td> <td>sds_no_grp</td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> </tr> <tr> <td>dr-sds-no-a</td> <td>Network OAM&P</td> <td>dr-sds-no-a</td> <td>dr_sds_grp</td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> </tr> <tr> <td>sds-so-a</td> <td>System OAM</td> <td>sds-so-1</td> <td>sds_so_a</td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> </tr> <tr style="background-color: #e6f2ff;"> <td>dp-sds-1</td> <td>MP</td> <td></td> <td></td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> </tr> </tbody> </table> <p>Insert Edit Delete Export Report</p>	Hostname	Role	System ID	Server Group	Network Element	Location	Place	sds-no-a	Network OAM&P	sds-no-a	sds_no_grp	SDS_NE	Bangalore		sds-no-b	Network OAM&P	sds-no-b	sds_no_grp	SDS_NE	Bangalore		qs-sds-1	Query Server		sds_no_grp	SDS_NE	Bangalore		dr-sds-no-a	Network OAM&P	dr-sds-no-a	dr_sds_grp	SDS_NE	Bangalore		sds-so-a	System OAM	sds-so-1	sds_so_a	SDS_NE	Bangalore		dp-sds-1	MP			SDS_NE	Bangalore	
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41. <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>The user must select the 'Info' box to receive a banner information message showing a download link for the “MP” configuration data.</p>	<p>Main Menu: Configuration -> Servers</p> 																																																	
42. <input type="checkbox"/>	<p>Configure/Export the each additional DP server to be installed for this SOAM site.</p>	<ul style="list-style-type: none"> Repeat Steps 26 - 41 of this procedure for each additional DP server installed in the SOAM cabinet. 																																																	
43. <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Click the “Logout” link on the SDS server GUI.</p>																																																		
44. <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>1) SSH to the Primary SDS NOAM VIP and access the command prompt.</p> <p>2) Log into the server as the “admusr” user.</p>	<p>login: admusr</p> <p>Using keyboard-interactive authentication.</p> <p>Password: <admusr_password></p>																																																	
45. <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Change directory to filegmt</p>	<p>\$ cd /var/TKLC/db/filegmt</p>																																																	

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Step	Procedure	Result
<p>46.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Attain directory listing. Look for the configuration file(s) that have just been generated for the DP(s). This should appear toward the bottom of the output.</p>	<pre>\$ ls -ltr TKLCConfigData*.sh *** TRUNCATED OUTPUT *** -rw-rw-rw- 1 admusr admusr 2042 Dec 20 10:54 TKLCConfigData.dp-carync-1.sh -rw-rw-rw- 1 admusr admusr 2042 Dec 20 10:57 TKLCConfigData.dp-carync-2.sh</pre>
<p>47.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Use scp to copy the file(s) to the PMAC server.</p>	<pre>\$sudo scp -p <configuration_file-1> <configuration_file-2> admusr@<PMAC_Mgmt_IP>:~/tmp/ Password: <admusr_password> TKLCConfigData.dp-carync-1.sh 100% 1757 1.7KB/s 00:00 TKLCConfigData.dp-carync-2.sh 100% 1757 1.7KB/s 00:00 \$</pre>
<p>48.</p>	<p>Primary SDS VIP:</p> <p>Logout of the Primary SDS CLI.</p>	<pre>\$ exit</pre>
<p>49.</p> <input type="checkbox"/>	<p>PMAC Server CLI:</p> <p>Use SSH to login to the PMAC Guest VM server as the admusr.</p>	<pre>login: admusr Password: <admusr_password></pre>
<p>50.</p>	<p>PMAC Guest VM:</p> <p>Key exchange with DP control IP</p>	<pre>\$ keyexchange admusr@<DP_Control_IP> Example: [admusr@nassau-enc-pmac-1 ~]\$ keyexchange admusr@192.168.1.22 The server does not know of 192.168.1.22. Will just exchange host keys for the name given! Password of admusr: Could not get authorized keys file from remote (192.168.1.22). Maybe it does not exist. Continuing... The server does not know of 192.168.1.22. Will just exchange host keys for the name given! ssh is working correctly. [admusr@nassau-enc-pmac-1 ~]\$</pre>

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Step	Procedure	Result
51. <input type="checkbox"/>	<p>PMAC Guest VM:</p> <p>Copy the server configuration file to the Control IP for the DP.</p> <p>Note: The Control IP for each DP is obtained in Step 15 of this procedure.</p>	<pre>\$ scp -p /tmp/<configuration_file> admusr@<DP_Control_IP>:/var/TKLC/db/filemgmt/ Password: <admusr_password> TKLCConfigData.dp-carync-1.sh 100% 1757 1.7KB/s 00:00</pre>
52. <input type="checkbox"/>	<p>PMAC Guest VM:</p> <p>Connect to the DP server console from the PMAC Server Console.</p>	<pre>\$ ssh <DP_Control_IP> Password: <admusr_password></pre>
53. <input type="checkbox"/>	<p>DP Server:</p> <p>Copy the SDS DP configuration file to the “/var/tmp” directory on the server, making sure to rename the file by omitting the server hostname (shown in red) from the file name.</p>	<p>Example:</p> <p>TKLCConfigData.<server_hostname>.sh → will translate to →TKLCConfigData.sh</p> <pre>\$ sudo cp -p /var/TKLC/db/filemgmt/TKLCConfigData.dp-carync-1.sh /var/tmp/TKLCConfigData.sh</pre> <p>NOTE: The server will poll the /var/tmp directory for the presence of the configuration file and automatically execute it when found.</p>
54. <input type="checkbox"/>	<p>DP Server:</p> <p>After the script completes, a broadcast message will be sent to the terminal.</p>	<p>*** NO OUTPUT FOR ≈ 3-20 MINUTES ***</p> <p>Broadcast message from admusr (Mon Dec 14 15:47:33 2009): Server configuration completed successfully! See /var/TKLC/appw/logs/Process/install.log for details. Please remove the USB flash drive if connected and reboot the server.</p> <p><ENTER></p>
55. <input type="checkbox"/>	<p>DP Server:</p> <p>Verify that the desired Time Zone is currently in use.</p>	<pre>\$ date Mon Aug 10 19:34:51 UTC 2015</pre>
56. <input type="checkbox"/>	<p>DP Server:</p> <p>Initiate a reboot of the DP.</p>	<pre>\$ sudo init 6</pre>

Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
<p>57.</p> <input type="checkbox"/>	<p>DP Server:</p> <p>Output similar to that shown on the right may be observed as the server initiates a reboot.</p>	<pre>\$ Connection to 192.168.1.226 closed by remote host. Connection to 192.168.1.226 closed.</pre>
<p>58.</p> <input type="checkbox"/>	<p>PMAC Guest VM:</p> <p>After the DP server has completed reboot...</p> <p>Re-connect to the DP server console from the PMAC Server Console</p>	<pre>\$ sudo ssh <DP_Control_IP> Password: <admusr_password></pre>
<p>59.</p> <input type="checkbox"/>	<p>DP Server:</p> <p>1) Verify that the XMI IP address input in Step 33 has been applied to “bond1”.</p> <p>2) Verify that the IMI IP address input in Step 33 has been applied to “bond0.4”.</p> <p>NOTE: Exact bond configuration may vary for custom network implementations.</p>	<pre>\$ ifconfig grep in bond0 Link encap:Ethernet HWaddr B4:99:BA:AC:BD:64 inet addr:192.168.1.226 Bcast:192.168.1.255 Mask:255.255.255.0 bond0.4 Link encap:Ethernet HWaddr B4:99:BA:AC:BD:64 inet addr:10.240.38.82 Bcast:10.240.38.127 Mask:255.255.255.192 bond1 Link encap:Ethernet HWaddr B4:99:BA:AC:BD:64 inet addr:10.240.39.154 Bcast:10.240.39.255 Mask:255.255.255.128 eth01 Link encap:Ethernet HWaddr B4:99:BA:AC:BD:64 eth02 Link encap:Ethernet HWaddr B4:99:BA:AC:BD:64 lo Link encap:Local Loopback inet addr:127.0.0.1 Mask:255.0.0.0</pre>
<p>60.</p> <input type="checkbox"/>	<p>DP Server:</p> <p>From the DP Server, “ping” the IMI IP address of the SOAM-A Guest.</p>	<pre>\$ ping -c 5 10.240.38.78 PING 10.240.38.78 (10.240.38.78) 56(84) bytes of data. 64 bytes from 10.240.38.78: icmp_seq=1 ttl=64 time=0.031 ms 64 bytes from 10.240.38.78: icmp_seq=2 ttl=64 time=0.017 ms 64 bytes from 10.240.38.78: icmp_seq=3 ttl=64 time=0.031 ms 64 bytes from 10.240.38.78: icmp_seq=4 ttl=64 time=0.028 ms 64 bytes from 10.240.38.78: icmp_seq=5 ttl=64 time=0.030 ms 64 bytes from 10.240.38.78: icmp_seq=6 ttl=64 time=0.028 ms --- 10.240.38.78 ping statistics --- 6 packets transmitted, 6 received, 0% packet loss, time 5000ms rtt min/avg/max/mdev = 0.017/0.027/0.031/0.007 ms</pre>

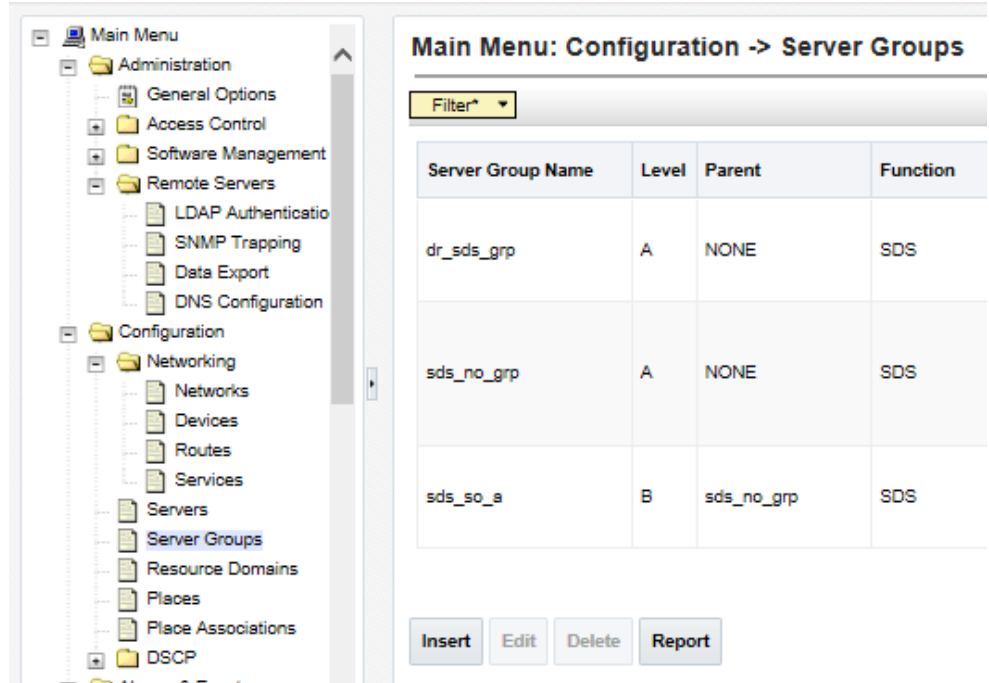
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
<p>61.</p> <input type="checkbox"/>	<p>DP Server: From the DP Server, “ping” the local XMI Gateway address associated with the SOAM NE.</p>	<pre>\$ ping -c 5 10.240.39.1 PING 10.240.39.1 (10.240.39.1) 56(84) bytes of data. 64 bytes from 10.240.39.1: icmp_seq=1 ttl=64 time=0.024 ms 64 bytes from 10.240.39.1: icmp_seq=2 ttl=64 time=0.033 ms 64 bytes from 10.240.39.1: icmp_seq=3 ttl=64 time=0.032 ms 64 bytes from 10.240.39.1: icmp_seq=4 ttl=64 time=0.026 ms 64 bytes from 10.240.39.1: icmp_seq=5 ttl=64 time=0.027 ms 64 bytes from 10.240.39.1: icmp_seq=6 ttl=64 time=0.026 ms --- 10.240.39.1 ping statistics --- 6 packets transmitted, 6 received, 0% packet loss, time 5004ms rtt min/avg/max/mdev = 0.024/0.028/0.033/0.003 ms</pre>
<p>62.</p> <input type="checkbox"/>	<p>DP Server: Use the “ntpq” command to verify connectivity to the assigned Primary and Secondary NTP server(s).</p>	<pre>\$ ntpq -np remote refid st t when poll reach delay offset jitter ===== +10.250.32.10 192.5.41.209 2 u 139 1024 377 2.008 1.006 1.049 *10.250.32.51 192.5.41.209 2 u 979 1024 377 0.507 1.664 0.702</pre>
<p>63.</p> <input type="checkbox"/>	<p>DP Server: Execute a “syscheck” to verify the current health of the server.</p>	<pre>\$ sudo syscheck Running modules in class hardware... OK Running modules in class disk... OK Running modules in class net... OK Running modules in class system... OK Running modules in class proc... OK LOG LOCATION: /var/TKLC/log/syscheck/fail_log</pre>

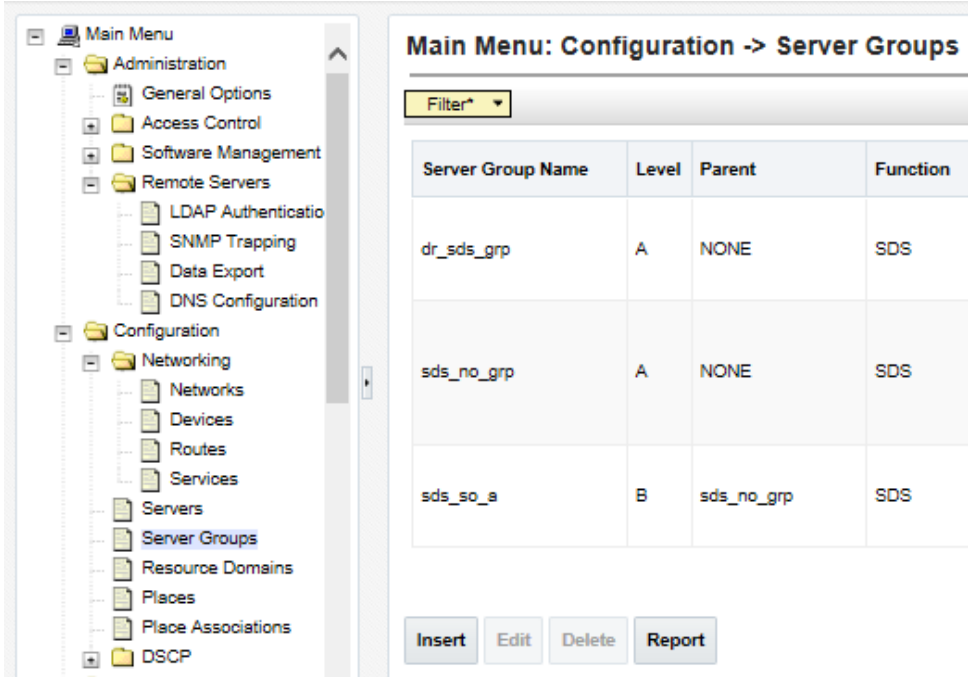
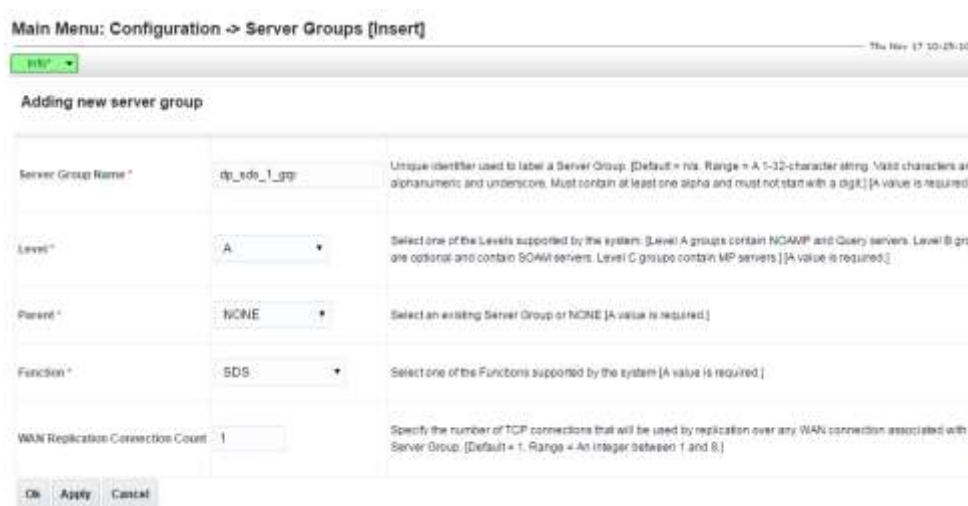
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
<p>64.</p>	<p>DP Server:</p> <p>Accept upgrade to the Application Software.</p> <p>Use "q" key to exit the screen session.</p>	<pre>[admusr@nassau-dp-2 ~]\$ sudo /var/TKLC/backout/accept Called with options: --accept Loading Backout::BackoutType::RPM Accepting Upgrade Executing common accept tasks Setting POST_UPGRADE_ACTION to ACCEPT in upgrade info. Cleaning backout directory. Clearing Upgrade Accept/Reject alarm. Cleaning message from MOTD. No patch pending alarm on server so no MOTD update. Cleaning up RPM config backup files... Checking / Checking /boot Checking /tmp Checking /usr Checking /var Checking /var/TKLC Checking /tmp/appworks_temp Checking /usr/openv Checking /var/TKLC/appw/logs/Process Checking /var/TKLC/appw/logs/Security Checking /var/TKLC/db/filemgmt Checking /var/TKLC/rundb Starting cleanup of RCS repository. INFO: Removing '/etc/my.cnf' from RCS repository INFO: Removing '/etc/pam.d/password-auth' from RCS repository INFO: Removing '/etc/pam.d/system-auth' from RCS repository INFO: Removing '/etc/sysconfig/network-scripts/ifcfg-eth0' from RCS repository INFO: Removing '/etc/php.d/zip.ini' from RCS repository INFO: Removing '/var/lib/prelink/force' from RCS repository === Window terminated (Thu Feb 2 20:07:21 2017) === screen session: use 'screen -x upgrade' to reconnect Type the letter "q" on the keyboard to exit the screen session. [screen is terminating] [admusr@nassau-dp-2 ~]\$</pre> <p>NOTE: EXECUTE Appendix I: Disable Hyper threading (DP Only) on server before exiting.</p>

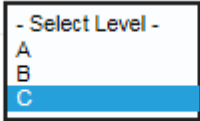
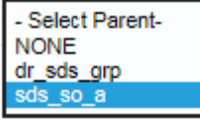
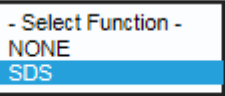
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																
<p>65.</p> <input type="checkbox"/>	<p>DP Server: Exit from the command line to return the server console to the login prompt.</p>	<p>\$ exit Connection to 192.168.1.199 closed.</p>																
<p>66.</p> <input type="checkbox"/>	<p>Apply the configuration file for each additional DP server installed at the SOAM site.</p>	<ul style="list-style-type: none"> Repeat Steps 51 - 65 of this procedure for each subtending DP server installed in the same SOAM enclosure. 																
<p>67.</p> <input type="checkbox"/>	<p>PMAC Guest VM: Exit from the PMAC server.</p>	<p>\$ exit</p>																
<p>68.</p> <input type="checkbox"/>	<p>Primary SDS VIP: Select...</p> <p><u>Main Menu</u> → Configuration → Server Groups</p> <p>...as shown on the right.</p>	 <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>dr_sds_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> </tr> <tr> <td>sds_no_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> </tr> <tr> <td>sds_so_a</td> <td>B</td> <td>sds_no_grp</td> <td>SDS</td> </tr> </tbody> </table>	Server Group Name	Level	Parent	Function	dr_sds_grp	A	NONE	SDS	sds_no_grp	A	NONE	SDS	sds_so_a	B	sds_no_grp	SDS
Server Group Name	Level	Parent	Function															
dr_sds_grp	A	NONE	SDS															
sds_no_grp	A	NONE	SDS															
sds_so_a	B	sds_no_grp	SDS															

Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result						
<p>69.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>1) The user will be presented with the “Server Groups” configuration screen as shown on the right.</p> <p>2) Select the “Insert” dialogue button from the bottom left corner of the screen.</p>							
<p>70.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>The user will be presented with the “Server Groups [Insert]” screen as shown on the right.</p> <p>NOTE: Leave the “WAN Replication Connection Count” blank (it will default to 1).</p>							
<p>71.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Input the Server Group Name.</p>	<table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name *</td> <td>dp_sds_1_grp</td> <td>Unique identifier used to label a Server G not start with a digit.] [A value is required.]</td> </tr> </tbody> </table> <p>NOTE: Each DP will have its own server group. Group names may be differentiated by assigning each a unique name.</p>	Field	Value	Description	Server Group Name *	dp_sds_1_grp	Unique identifier used to label a Server G not start with a digit.] [A value is required.]
Field	Value	Description						
Server Group Name *	dp_sds_1_grp	Unique identifier used to label a Server G not start with a digit.] [A value is required.]						

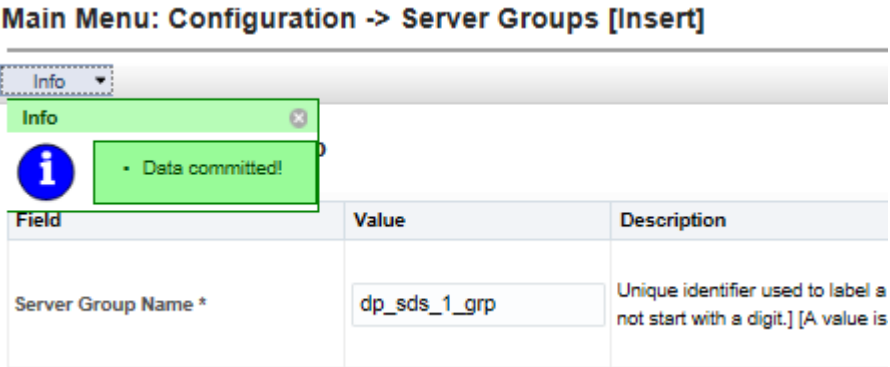

Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result	
<p>72.</p> <input type="checkbox"/>	<p>Primary SDS VIP: Select “C” on the “Level” pull-down menu.</p>	<p>Level *</p>	 <p>not start with a digit.) [A value is requi Select one of the Levels supported t servers.] [A value is required.]</p>
<p>73.</p> <input type="checkbox"/>	<p>Primary SDS VIP: Select System OAM group on the “Parent” pull-down menu.</p>	<p>Parent *</p>	 <p>Select an existing Server Group or NONE [A</p>
<p>74.</p> <input type="checkbox"/>	<p>Primary SDS VIP: Select “SDS” on the “Function” pull-down menu.</p>	<p>Function *</p>	 <p>Select one of the Functions sup</p>

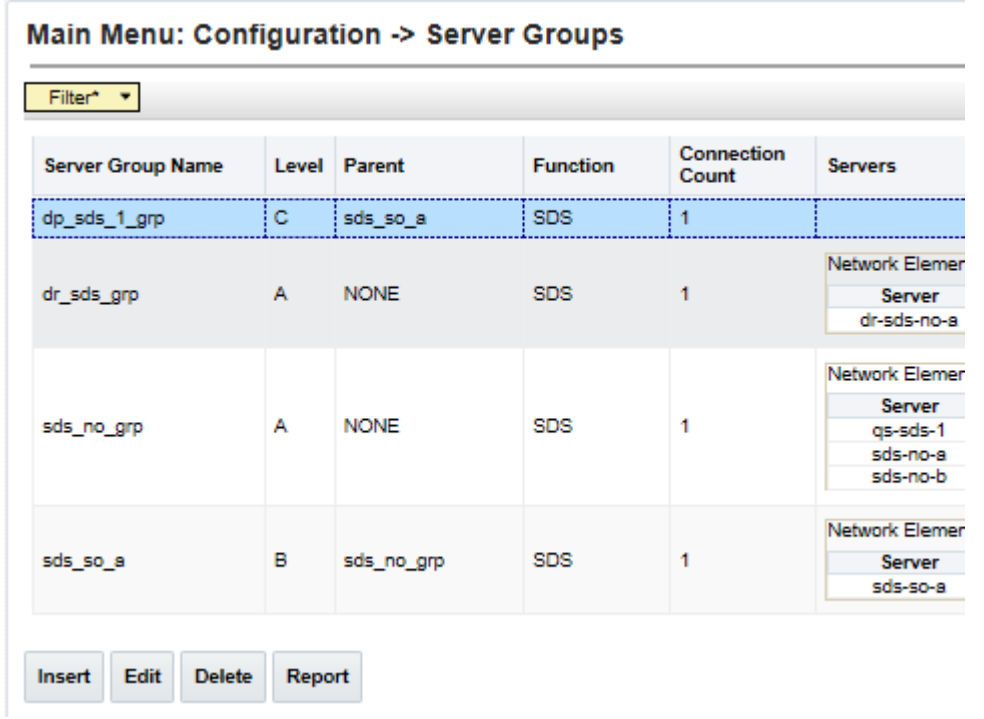
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
<p>75.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Select the “Apply” dialogue button.</p>	<p>Main Menu: Configuration -> Server Groups [Insert]</p> <p>Info</p> <p>Info</p> <ul style="list-style-type: none"> • Pre-Validation passed - Data NOT committed ... <p>Server Group Name * <input type="text" value="dp_sds_1_grp"/> Unique identifier alphanumeric</p> <p>Level * <input type="text" value="A"/> Select one character are optional</p> <p>Parent * <input type="text" value="NONE"/> Select an existing group</p> <p>Function * <input type="text" value="SDS"/> Select one character</p> <p>WAN Replication Connection Count <input type="text" value="1"/> Specify the number of Server Groups</p> <p>Ok Apply Cancel</p>

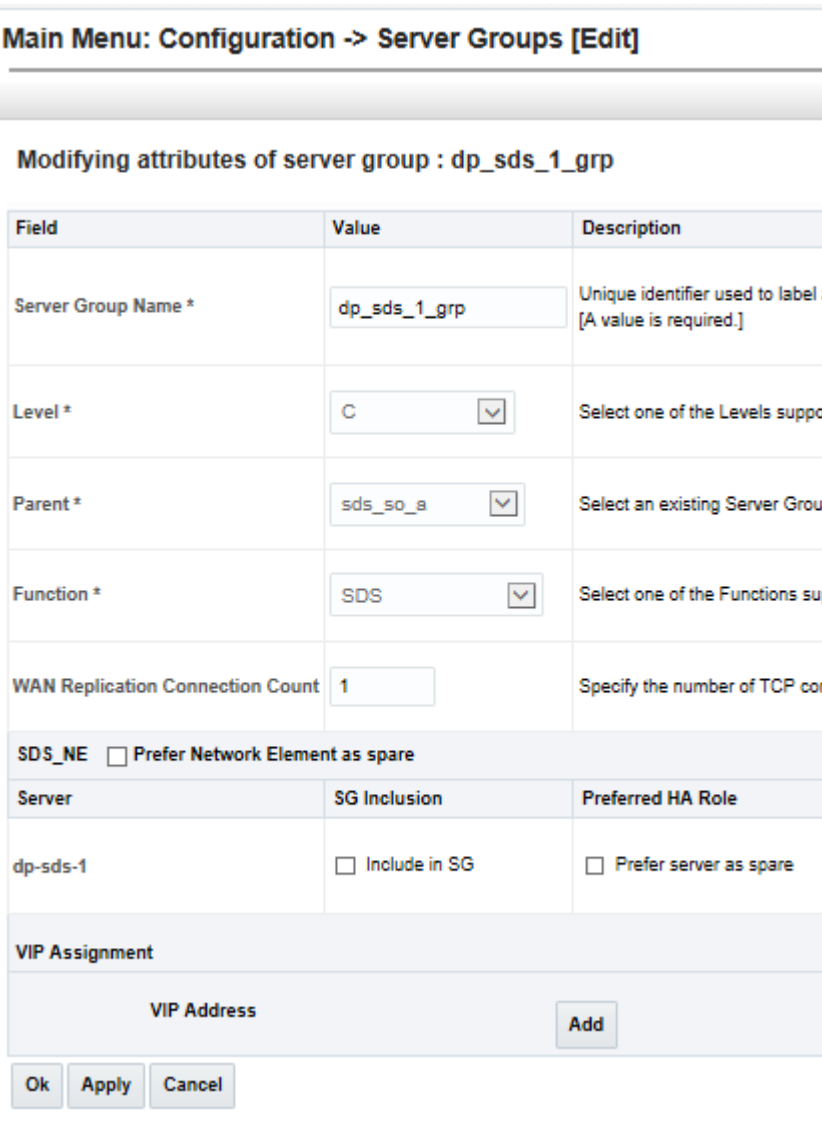
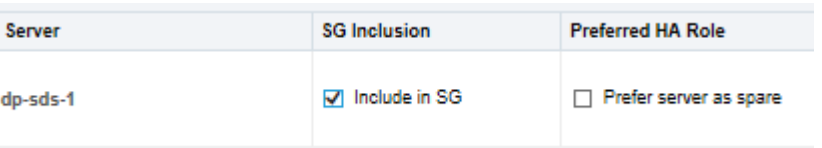
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																				
<p>76.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The user should be presented with a banner information message stating “Data committed”.</p>	 <p>Main Menu: Configuration -> Server Groups [Insert]</p> <p>Info</p> <p>Info</p> <p>• Data committed!</p> <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name *</td> <td>dp_sds_1_grp</td> <td>Unique identifier used to label a not start with a digit.] [A value is</td> </tr> </tbody> </table>	Field	Value	Description	Server Group Name *	dp_sds_1_grp	Unique identifier used to label a not start with a digit.] [A value is														
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Server Group Name *	dp_sds_1_grp	Unique identifier used to label a not start with a digit.] [A value is																				
<p>77.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) Select... Main Menu → Configuration → Server Groups ...as shown on the right</p> <p>2) The user will be presented with the “Configuration → Server Groups” screen as shown on the right.</p>	 <p>Main Menu: Configuration -> Server Groups</p> <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Full</th> </tr> </thead> <tbody> <tr> <td>SDS_DP_01_GRP</td> <td>C</td> <td>SDS_SO_GRP</td> <td>SDS</td> </tr> <tr> <td>SDS_DP_02_GRP</td> <td>C</td> <td>SDS_SO_GRP</td> <td>SDS</td> </tr> <tr> <td>SDS_NO_GRP</td> <td>A</td> <td>NONE</td> <td>SDS</td> </tr> <tr> <td>SDS_SO_GRP</td> <td>B</td> <td>SDS_NO_GRP</td> <td>SDS</td> </tr> </tbody> </table>	Server Group Name	Level	Parent	Full	SDS_DP_01_GRP	C	SDS_SO_GRP	SDS	SDS_DP_02_GRP	C	SDS_SO_GRP	SDS	SDS_NO_GRP	A	NONE	SDS	SDS_SO_GRP	B	SDS_NO_GRP	SDS
Server Group Name	Level	Parent	Full																			
SDS_DP_01_GRP	C	SDS_SO_GRP	SDS																			
SDS_DP_02_GRP	C	SDS_SO_GRP	SDS																			
SDS_NO_GRP	A	NONE	SDS																			
SDS_SO_GRP	B	SDS_NO_GRP	SDS																			

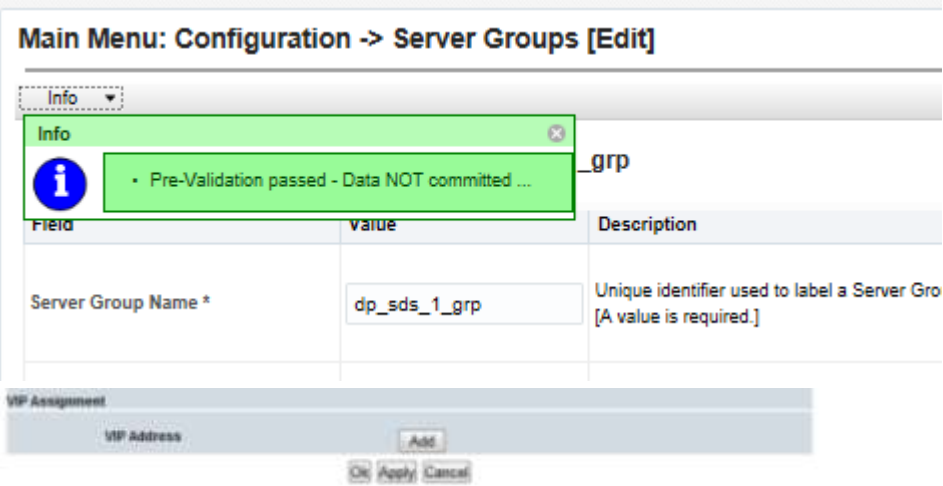
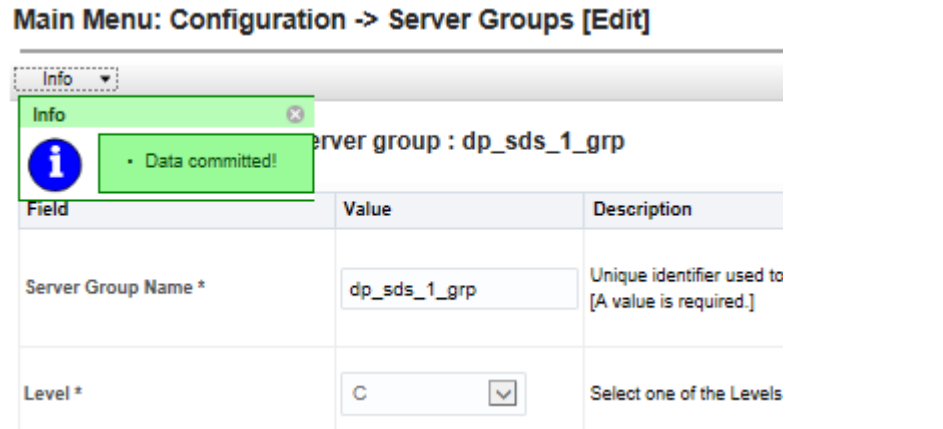
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																														
<p>78.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) Using the mouse, select the MP Server Group associated with the DP being installed.</p> <p>2) Select the “Edit” dialogue button from the bottom left corner of the screen.</p>	 <p>Main Menu: Configuration -> Server Groups</p> <p>Filter* ▼</p> <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Connection Count</th> <th>Servers</th> </tr> </thead> <tbody> <tr> <td>dp_sds_1_grp</td> <td>C</td> <td>sds_so_a</td> <td>SDS</td> <td>1</td> <td></td> </tr> <tr> <td>dr_sds_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>1</td> <td>Network Elemer Server dr-sds-no-a</td> </tr> <tr> <td>sds_no_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>1</td> <td>Network Elemer Server qs-sds-1 sds-no-a sds-no-b</td> </tr> <tr> <td>sds_so_a</td> <td>B</td> <td>sds_no_grp</td> <td>SDS</td> <td>1</td> <td>Network Elemer Server sds-so-a</td> </tr> </tbody> </table> <p>Insert Edit Delete Report</p>	Server Group Name	Level	Parent	Function	Connection Count	Servers	dp_sds_1_grp	C	sds_so_a	SDS	1		dr_sds_grp	A	NONE	SDS	1	Network Elemer Server dr-sds-no-a	sds_no_grp	A	NONE	SDS	1	Network Elemer Server qs-sds-1 sds-no-a sds-no-b	sds_so_a	B	sds_no_grp	SDS	1	Network Elemer Server sds-so-a
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dp_sds_1_grp	C	sds_so_a	SDS	1																												
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sds_no_grp	A	NONE	SDS	1	Network Elemer Server qs-sds-1 sds-no-a sds-no-b																											
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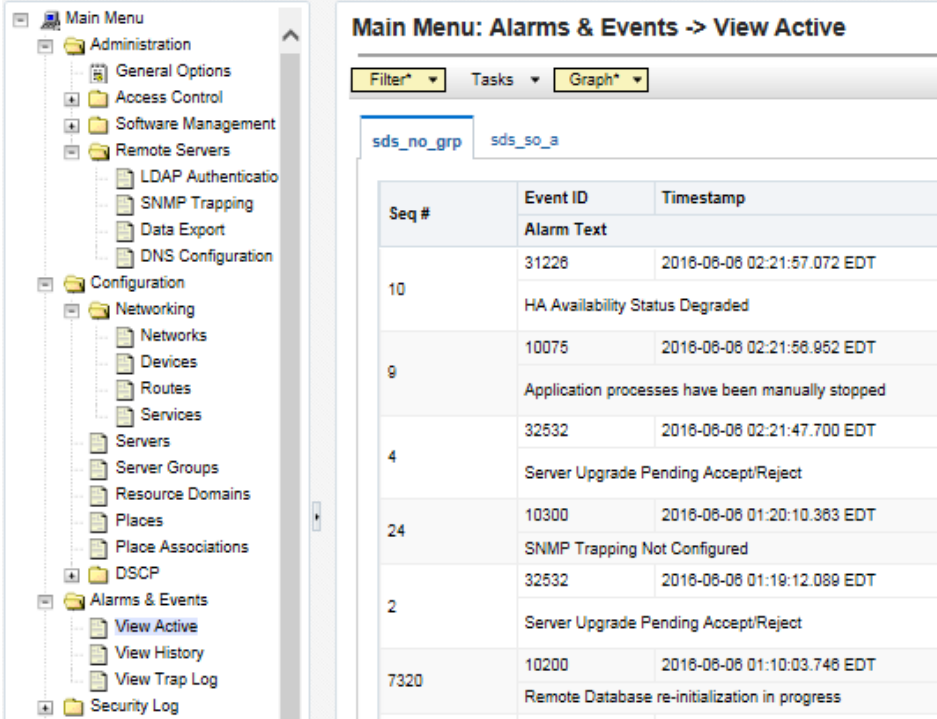
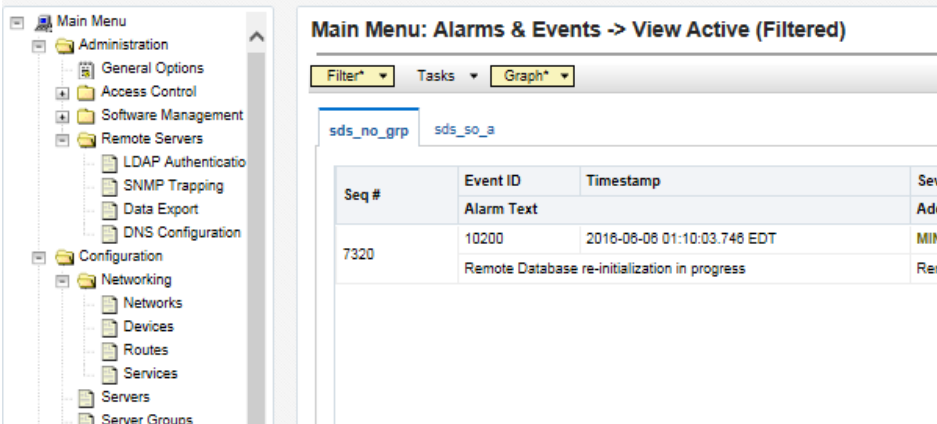
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
<p>79.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>The user will be presented with the “Configuration → Server Groups [Edit]” screen as shown on the right</p>	
<p>80.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Select the “DP” server from the list of “Servers” by clicking the check box next its name.</p>	

Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
<p>81.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Select the “Apply” dialogue button.</p>	 <p>The screenshot shows the 'Main Menu: Configuration -> Server Groups [Edit]' page. An information message box is displayed at the top, stating 'Pre-Validation passed - Data NOT committed ...'. Below the message, the 'Server Group Name' field is populated with 'dp_sds_1_grp'. The 'Description' field contains the text 'Unique identifier used to label a Server Gro [A value is required.]'. At the bottom, there is a 'VIP Assignment' section with an 'Add' button and 'OK Apply Cancel' buttons.</p>
<p>82.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>The user should be presented with a banner information message stating “Data committed”.</p>	 <p>The screenshot shows the 'Main Menu: Configuration -> Server Groups [Edit]' page. An information message box is displayed at the top, stating 'Data committed!'. Below the message, the 'Server Group Name' field is populated with 'dp_sds_1_grp' and the 'Level' dropdown menu is set to 'C'. The 'Description' field contains the text 'Unique identifier used to [A value is required.]'. The 'Level' field has a description 'Select one of the Levels'.</p>
<p>83.</p> <input type="checkbox"/>	<p>Place each additional DP Server into its respective DP Server Group.</p>	<ul style="list-style-type: none"> Repeat Steps 68 - 82 of this procedure for each subrending DP server installed in the same SOAM enclosure, <i>using a unique group for each DP.</i>

Procedure 10: Installing the Data Processor blade (All SOAM sites)


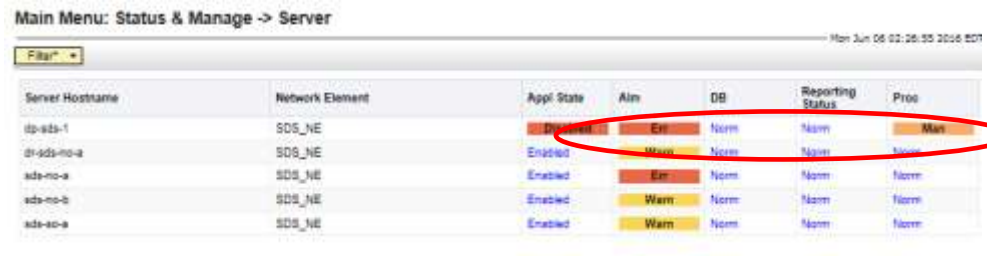
Step	Procedure	Result																												
<p>84.</p>	<p>Primary SDS VIP: Select...</p> <p>Main Menu → Alarms & Events → View Active</p> <p>...as shown on the right.</p>	 <p>The screenshot shows the 'Main Menu: Alarms & Events -> View Active' interface. On the left is a tree view of the Main Menu with 'Alarms & Events' selected. On the right is a table of active alarms:</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>10</td> <td>31226</td> <td>2016-06-06 02:21:57.072 EDT</td> <td>HA Availability Status Degraded</td> </tr> <tr> <td>9</td> <td>10075</td> <td>2016-06-06 02:21:56.952 EDT</td> <td>Application processes have been manually stopped</td> </tr> <tr> <td>4</td> <td>32532</td> <td>2016-06-06 02:21:47.700 EDT</td> <td>Server Upgrade Pending Accept/Reject</td> </tr> <tr> <td>24</td> <td>10300</td> <td>2016-06-06 01:20:10.363 EDT</td> <td>SNMP Trapping Not Configured</td> </tr> <tr> <td>2</td> <td>32532</td> <td>2016-06-06 01:19:12.089 EDT</td> <td>Server Upgrade Pending Accept/Reject</td> </tr> <tr> <td>7320</td> <td>10200</td> <td>2016-06-06 01:10:03.746 EDT</td> <td>Remote Database re-initialization in progress</td> </tr> </tbody> </table>	Seq #	Event ID	Timestamp	Alarm Text	10	31226	2016-06-06 02:21:57.072 EDT	HA Availability Status Degraded	9	10075	2016-06-06 02:21:56.952 EDT	Application processes have been manually stopped	4	32532	2016-06-06 02:21:47.700 EDT	Server Upgrade Pending Accept/Reject	24	10300	2016-06-06 01:20:10.363 EDT	SNMP Trapping Not Configured	2	32532	2016-06-06 01:19:12.089 EDT	Server Upgrade Pending Accept/Reject	7320	10200	2016-06-06 01:10:03.746 EDT	Remote Database re-initialization in progress
Seq #	Event ID	Timestamp	Alarm Text																											
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7320	10200	2016-06-06 01:10:03.746 EDT	Remote Database re-initialization in progress																											
<p>85.</p>	<p>Primary SDS VIP:</p> <p>Verify that Event ID 10200 (<i>Remote Database re-initialization in progress</i>) alarms are present with the DP Server hostnames in the "Instance" field..</p>	 <p>The screenshot shows the 'Main Menu: Alarms & Events -> View Active (Filtered)' interface. On the left is the same tree view as in step 84. On the right is a table of filtered alarms:</p> <table border="1"> <thead> <tr> <th>Seq #</th> <th>Event ID</th> <th>Timestamp</th> <th>Alarm Text</th> <th>Severity</th> <th>Action</th> </tr> </thead> <tbody> <tr> <td>7320</td> <td>10200</td> <td>2016-06-06 01:10:03.746 EDT</td> <td>Remote Database re-initialization in progress</td> <td>MINOR</td> <td>Remove</td> </tr> </tbody> </table>	Seq #	Event ID	Timestamp	Alarm Text	Severity	Action	7320	10200	2016-06-06 01:10:03.746 EDT	Remote Database re-initialization in progress	MINOR	Remove																
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7320	10200	2016-06-06 01:10:03.746 EDT	Remote Database re-initialization in progress	MINOR	Remove																									



MONITOR THE EVENT ID 10200 (*Remote Database re-initialization in progress*) ALARMS.

DO NOT PROCEED TO THE NEXT STEP UNTIL THE ALARM CLEAR IS RECEIVED FOR ALL DP SERVERS.

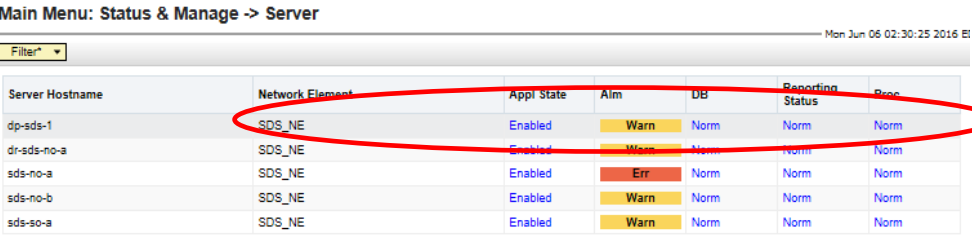
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																																										
<p>86.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu → Status & Manage → Server</p> <p>...as shown on the right.</p>	 <p>The screenshot shows the 'Main Menu: Status & Manage -> Server' interface. On the left is a navigation tree with 'Main Menu' expanded to 'Status & Manage' and 'Server' selected. The main area displays a table with columns: Server Hostname, Network Element, Appl State, Aim, DB, Reporting Status, and Proc. The table contains five rows of server data.</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Aim</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>ip-sds-1</td> <td>SDS_NE</td> <td>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>ip-sds-no-a</td> <td>SDS_NE</td> <td>Disabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-no-a</td> <td>SDS_NE</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-no-b</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-no-c</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table>	Server Hostname	Network Element	Appl State	Aim	DB	Reporting Status	Proc	ip-sds-1	SDS_NE	Disabled	Err	Norm	Norm	Man	ip-sds-no-a	SDS_NE	Disabled	Warn	Norm	Norm	Norm	sds-no-a	SDS_NE	Enabled	Err	Norm	Norm	Norm	sds-no-b	SDS_NE	Enabled	Warn	Norm	Norm	Norm	sds-no-c	SDS_NE	Enabled	Warn	Norm	Norm	Norm
Server Hostname	Network Element	Appl State	Aim	DB	Reporting Status	Proc																																						
ip-sds-1	SDS_NE	Disabled	Err	Norm	Norm	Man																																						
ip-sds-no-a	SDS_NE	Disabled	Warn	Norm	Norm	Norm																																						
sds-no-a	SDS_NE	Enabled	Err	Norm	Norm	Norm																																						
sds-no-b	SDS_NE	Enabled	Warn	Norm	Norm	Norm																																						
sds-no-c	SDS_NE	Enabled	Warn	Norm	Norm	Norm																																						
<p>87.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Verify that the “DB & Reporting” status columns all show “Norm” for the DP at this point. The “Proc” column should show “Man”.</p>	 <p>The screenshot shows the same 'Main Menu: Status & Manage -> Server' interface. A red circle highlights the 'DB', 'Reporting Status', and 'Proc' columns for the first row (ip-sds-1), where the values are 'Norm', 'Norm', and 'Man' respectively.</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Aim</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>ip-sds-1</td> <td>SDS_NE</td> <td>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>ip-sds-no-a</td> <td>SDS_NE</td> <td>Disabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-no-a</td> <td>SDS_NE</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-no-b</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-no-c</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table>	Server Hostname	Network Element	Appl State	Aim	DB	Reporting Status	Proc	ip-sds-1	SDS_NE	Disabled	Err	Norm	Norm	Man	ip-sds-no-a	SDS_NE	Disabled	Warn	Norm	Norm	Norm	sds-no-a	SDS_NE	Enabled	Err	Norm	Norm	Norm	sds-no-b	SDS_NE	Enabled	Warn	Norm	Norm	Norm	sds-no-c	SDS_NE	Enabled	Warn	Norm	Norm	Norm
Server Hostname	Network Element	Appl State	Aim	DB	Reporting Status	Proc																																						
ip-sds-1	SDS_NE	Disabled	Err	Norm	Norm	Man																																						
ip-sds-no-a	SDS_NE	Disabled	Warn	Norm	Norm	Norm																																						
sds-no-a	SDS_NE	Enabled	Err	Norm	Norm	Norm																																						
sds-no-b	SDS_NE	Enabled	Warn	Norm	Norm	Norm																																						
sds-no-c	SDS_NE	Enabled	Warn	Norm	Norm	Norm																																						

Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																																										
<p>88.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) Using the mouse, select the “DP” hostname. The line entry should now be highlighted in.</p> <p>2) Select the “Restart” dialogue button from the bottom left corner of the screen.</p> <p>3) Click the “OK” button on the confirmation dialogue box.</p> <p>4) The user should be presented with a confirmation message (in the banner area) for the “DP” stating: “Successfully restarted application”.</p> <p><i>NOTE: The user may need to use the vertical scroll-bar in order to make the “Restart” dialogue button visible.</i></p>	<p>Main Menu: Status & Manage -> Server</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>Dll</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>dp-sds-1</td> <td>SDS_NE</td> <td>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>dr-sds-no-a</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-no-a</td> <td>SDS_NE</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-no-b</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-so-a</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table> <p>Stop Restart Reboot MTP Sync Report</p> <p>Message from webpage</p> <p>Are you sure you wish to restart application software on the following server(s)? dp-sds-1</p> <p>OK Cancel</p> <p>Main Menu: Status & Manage -> Server</p> <p>Info</p> <p>Server Hostname: dp-sds-1</p> <p>dp-sds-1: Successfully restarted application.</p>	Server Hostname	Network Element	Appl State	Alm	Dll	Reporting Status	Proc	dp-sds-1	SDS_NE	Disabled	Err	Norm	Norm	Man	dr-sds-no-a	SDS_NE	Enabled	Warn	Norm	Norm	Norm	sds-no-a	SDS_NE	Enabled	Err	Norm	Norm	Norm	sds-no-b	SDS_NE	Enabled	Warn	Norm	Norm	Norm	sds-so-a	SDS_NE	Enabled	Warn	Norm	Norm	Norm
Server Hostname	Network Element	Appl State	Alm	Dll	Reporting Status	Proc																																						
dp-sds-1	SDS_NE	Disabled	Err	Norm	Norm	Man																																						
dr-sds-no-a	SDS_NE	Enabled	Warn	Norm	Norm	Norm																																						
sds-no-a	SDS_NE	Enabled	Err	Norm	Norm	Norm																																						
sds-no-b	SDS_NE	Enabled	Warn	Norm	Norm	Norm																																						
sds-so-a	SDS_NE	Enabled	Warn	Norm	Norm	Norm																																						
<p>89.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu → Status & Manage → Server</p> <p>...as shown on the right.</p>	<p>Main Menu: Status & Manage -> Server</p> <ul style="list-style-type: none"> Main Menu <ul style="list-style-type: none"> Administration Configuration Alarms & Events <ul style="list-style-type: none"> View Active View History View Trap Log Security Log Status & Manage <ul style="list-style-type: none"> Network Elements Server HA Database <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> </tr> </thead> <tbody> <tr> <td>dp-sds-1</td> <td>SDS_NE</td> <td>Enabled</td> </tr> <tr> <td>dr-sds-no-a</td> <td>SDS_NE</td> <td>Enabled</td> </tr> <tr> <td>sds-no-a</td> <td>SDS_NE</td> <td>Enabled</td> </tr> <tr> <td>sds-no-b</td> <td>SDS_NE</td> <td>Enabled</td> </tr> <tr> <td>sds-so-a</td> <td>SDS_NE</td> <td>Enabled</td> </tr> </tbody> </table>	Server Hostname	Network Element	Appl State	dp-sds-1	SDS_NE	Enabled	dr-sds-no-a	SDS_NE	Enabled	sds-no-a	SDS_NE	Enabled	sds-no-b	SDS_NE	Enabled	sds-so-a	SDS_NE	Enabled																								
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sds-no-b	SDS_NE	Enabled																																										
sds-so-a	SDS_NE	Enabled																																										

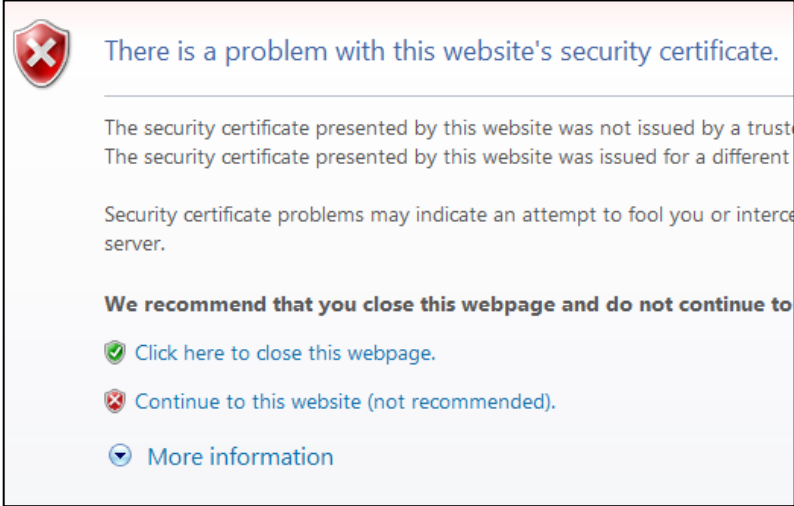
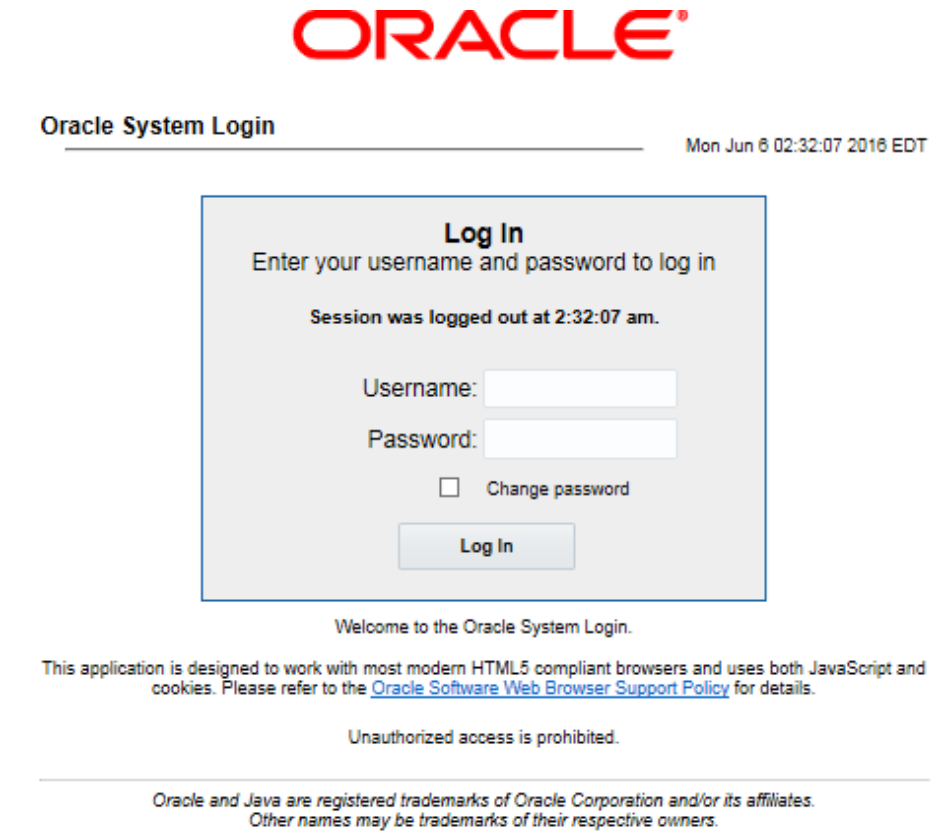
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																																										
<p>90.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Verify that the “Appl State” now shows “Enabled” and that the “Alm, DB, Reporting Status & Proc” status columns all show “Norm” for the “DP”.</p>	<p>Main Menu: Status & Manage -> Server</p>  <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>dp-sds-1</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>dr-sds-no-a</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-no-a</td> <td>SDS_NE</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-no-b</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-so-a</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table>	Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc	dp-sds-1	SDS_NE	Enabled	Warn	Norm	Norm	Norm	dr-sds-no-a	SDS_NE	Enabled	Warn	Norm	Norm	Norm	sds-no-a	SDS_NE	Enabled	Err	Norm	Norm	Norm	sds-no-b	SDS_NE	Enabled	Warn	Norm	Norm	Norm	sds-so-a	SDS_NE	Enabled	Warn	Norm	Norm	Norm
Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc																																						
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sds-no-a	SDS_NE	Enabled	Err	Norm	Norm	Norm																																						
sds-no-b	SDS_NE	Enabled	Warn	Norm	Norm	Norm																																						
sds-so-a	SDS_NE	Enabled	Warn	Norm	Norm	Norm																																						
<p>91.</p> <input type="checkbox"/>	<p>Repeat this procedure for each additional DP Server.</p>	<ul style="list-style-type: none"> Repeat Steps 86 - 90 of this procedure for each additional DP server installed in the SOAM cabinet. 																																										
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>																																												

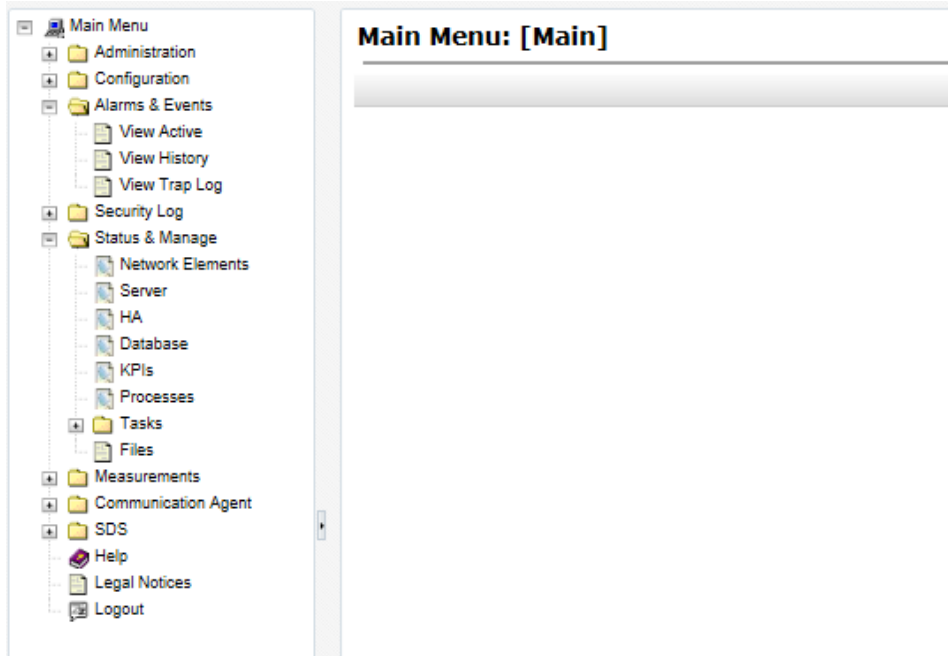
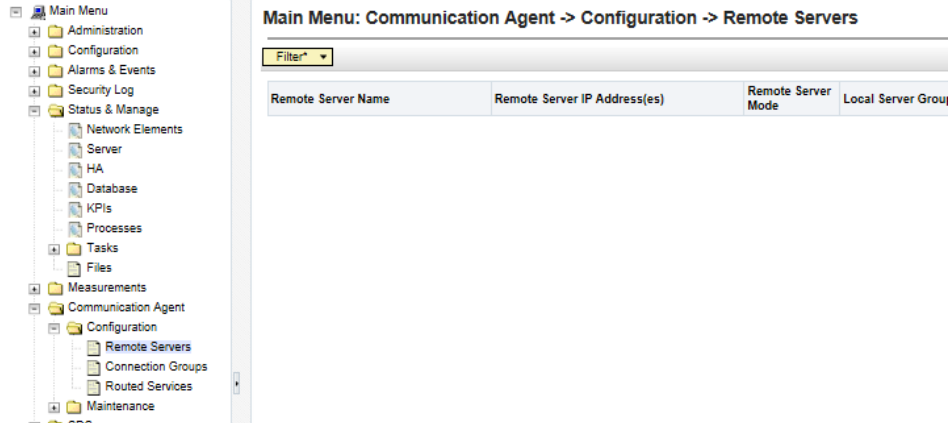

5.10 Configuring ComAgent

This procedure configures the ComAgent that allows the SDS Data Processor servers and the DSR Message Processor servers to communicate with each other. These steps cannot be executed until all SDS DP servers are configured.

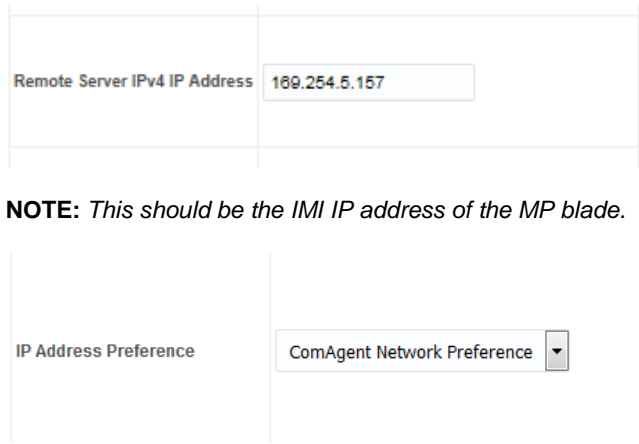
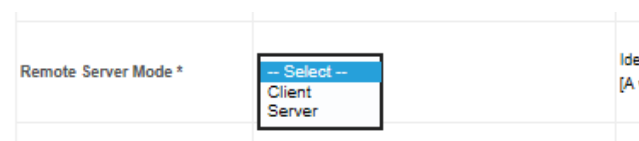


Procedure 11: Configuring comAgent (All SOAM sites)

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

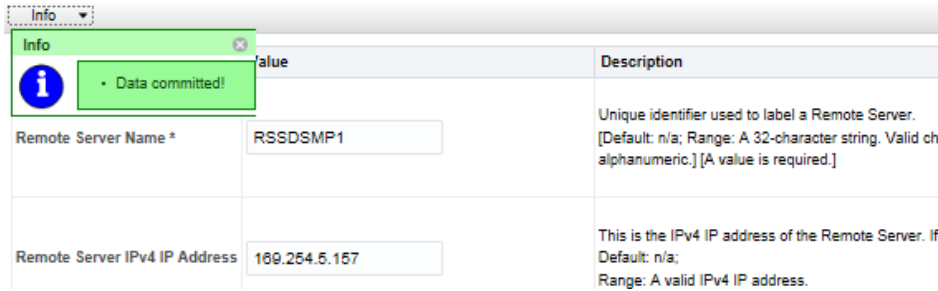
Procedure 11: Configuring comAgent (All SOAM sites)

<p>3.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The user should be presented the SDS Main Menu as shown on the right.</p>							
<p>4.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu →Communication Agent →Configuration →Remote Servers</p> <p>...as shown on the right.</p>							
<p>5.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select the "Insert" dialogue button</p>							
<p>6.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Enter the "Remote Server Name" for the DSR Message Processor server</p>	<table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Remote Server Name *</td> <td>RSSDSMP1</td> <td>Unique identifier used to label a Remote Server. [Default: n/a; Range: A 32-character string. Valid characters are alphanumeric.] [A value is required.]</td> </tr> </tbody> </table>	Field	Value	Description	Remote Server Name *	RSSDSMP1	Unique identifier used to label a Remote Server. [Default: n/a; Range: A 32-character string. Valid characters are alphanumeric.] [A value is required.]
Field	Value	Description						
Remote Server Name *	RSSDSMP1	Unique identifier used to label a Remote Server. [Default: n/a; Range: A 32-character string. Valid characters are alphanumeric.] [A value is required.]						

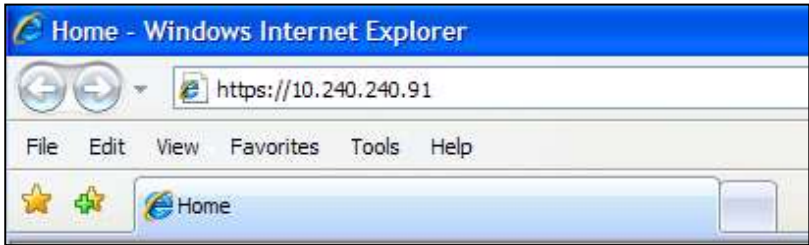
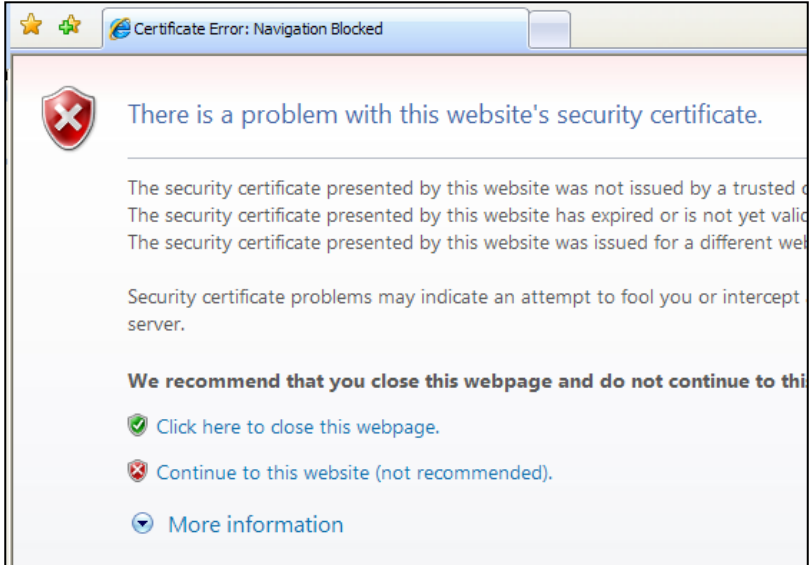

Procedure 11: Configuring comAgent (All SOAM sites)

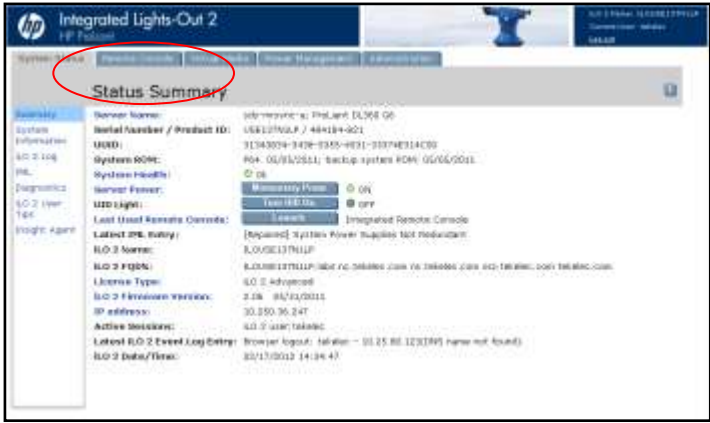
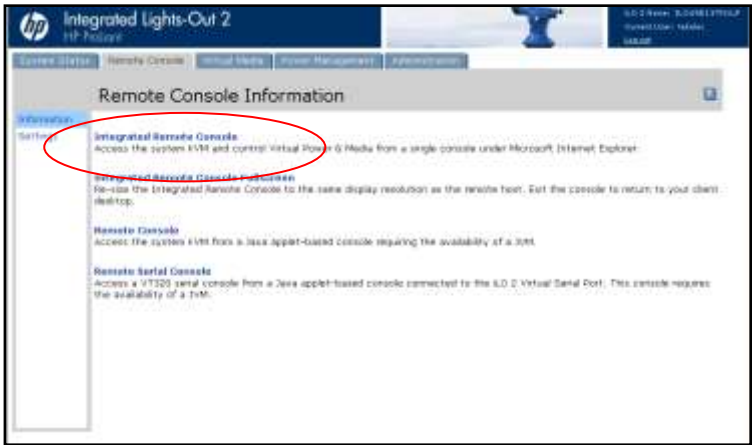
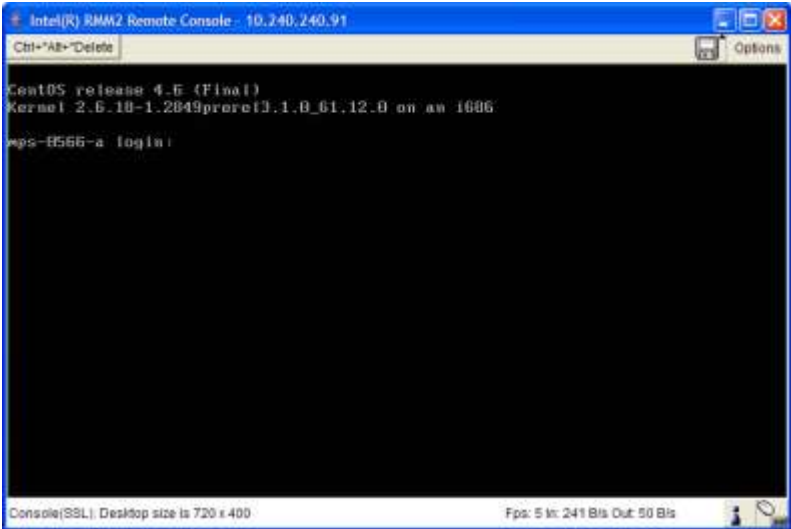
<p>7.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Enter the “Remote Server IMI IP Address” and “IP Address Preference”.</p>	 <p>Remote Server IPv4 IP Address 169.254.5.157</p> <p>IP Address Preference ComAgent Network Preference</p> <p>NOTE: This should be the IMI IP address of the MP blade.</p> <p>Default value can be used.</p>	<p>This is the IPv4 IP address of the Remote : Default: n/a; Range: A valid IPv4 IP address.</p> <p>The Preferred IP Address for connection establishment [Default = ComAgent Network Preference; Range = IPv4 Preferred, IPv6 Preferred or ComAgent Network Preference.]</p>
<p>8.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select “Client” for the Remote Server Mode from the pull-down menu.</p>	 <p>Remote Server Mode * Client</p>	<p>Identifies the mode in which the Remote Server [A value is required.]</p>
<p>9.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select the Local Server Group for the SDS Data Processor server group</p>	 <p>Assigned Local Server Groups *</p> <p>Available Local Server Groups: MultiApp3_DP1, MultiApp3_DP2</p> <p>Assigned Local Server Groups</p>	<p>This field specifies the Server Groups which can be associated with the Remote Server. The Servers in these Server Groups establish connections with this Remote Server. Server Groups which are available will be in the Available Local Server Groups list. Server Groups which are associated with the Remote Server will be in the Assigned Local Server Groups list. [Default = n/a; Range = List of configured Server Groups in the Network Element.]</p>
<p>10.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Click the “Apply” dialogue button</p>	 <p>Assigned Local Server Groups *</p> <p>Available Local Server Groups</p> <p>Assigned Local Server Groups: MultiApp3_DP1, MultiApp3_DP2</p>	<p>This field specifies the Server Groups which can be associated with the Remote Server. The Servers in these Server Groups establish connections with this Remote Server. Server Groups which are available will be in the Available Local Server Groups list. Server Groups which are associated with the Remote Server will be in the Assigned Local Server Groups list. [Default = n/a; Range = List of configured Server Groups in the Network Element.]</p>

Procedure 11: Configuring comAgent (All SOAM sites)

<p>11.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Under the “Info” banner option, the user should be presented with a message stating “Data committed”</p>	<p>Main Menu: Communication Agent -> Configuration -> Remote Servers [Insert]</p> 
<p>12.</p> <input type="checkbox"/>	<ul style="list-style-type: none"> Repeat steps 5 - 11 of this procedure for each additional remote DA-MP in the associated DSR SOAM NE. 	
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>		

Appendix A. ACCESSING THE ILO VGA REDIRECTION WINDOW

Step	Procedure	Result
<p>1.</p> <input type="checkbox"/>	<p>Launch an approved web browser and connect to the iLO interface</p> <p>NOTE: Always use <i>https://</i> for iLO GUI access.</p>	
<p>2.</p> <input type="checkbox"/>	<p>The web browser will display a warning message regarding the Security Certificate.</p> <p>NOTE: If presented with the “security certificate” warning screen shown to the right, choose the following option: “Continue to this website (not recommended)”.</p>	
<p>3.</p> <input type="checkbox"/>	<p>Login to the iLO console as “Administrator”</p>	

<p>4.</p> <p><input type="checkbox"/></p>	<p>The admin GUI is displayed.</p> <p>Select the “Remote Console” tab in the upper left corner of the GUI.</p>	
<p>5.</p> <p><input type="checkbox"/></p>	<p>The Remote Console Information GUI is displayed</p> <p>Click on the “Integrated Remote Console” option</p>	
<p>6.</p> <p><input type="checkbox"/></p>	<p>The iLO Console window is displayed.</p> <p>NOTE: <i>The console window resembles an MS-DOS window but DOES NOT have a scroll-back buffer.</i></p>	
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>		

Appendix B. CREATING TEMPORARY EXTERNAL IP ADDRESS FOR ACCESSING SDS GUI

This procedure creates a temporary external IP address that will be used for accessing the SDS GUI prior to configuring the first SDS server. This procedure assumes that the user has access to the ILO and can access an external (XMI) network at the customer site.

Step	In this procedure you will configure a temporary external IP Address for SDS Server A for the 1 st SDS site. The user will use this IP Address in a web browser to access the GUI to configure the first SDS server.	
<p>1.</p> <input type="checkbox"/>	<p>Log onto the SDS NOAM Server A ILO as indicated in 0</p> <p>NOTE: <i>Output similar to that shown on the right will appear.</i></p>	<p>hostname1260476221 login: admusr Password: <admusr_password></p>
<p>2.</p> <input type="checkbox"/>	<p>For Gen8: Delete bond0, if present</p> <p>For Gen9: Delete bond0</p>	<p>\$ sudo netAdm delete --device=bond0 eth01 was successfully removed from bond0 eth11 was successfully removed from bond0 Interface bond0 removed</p> <p>For GEN9</p> <p>\$ sudo netAdm delete --device=bond0 eth01 was successfully removed from bond0 eth02 was successfully removed from bond0 Interface bond0 removed</p>
<p>3.</p> <input type="checkbox"/>	<p>Add XMI IP address to the first SDS server (SDS NOAM-A) and have it use interface eth02 for Gen8 and eth03 for Gen9</p>	<p>For Gen8:</p> <p>\$ sudo netAdm set --device=eth02 --onboot=yes --netmask=255.255.255.0 --address=<XMI_IP_Address_for_SDS_A> Interface eth02 updated</p> <p>For Gen9:</p> <p>\$ sudo netAdm set --device=eth03 --onboot=yes --netmask=255.255.255.0 --address=<XMI_IP_Address_for_SDS_A> Interface eth03 updated</p>

<p>4. <input type="checkbox"/></p>	<p>Add route to the default gateway for the first SDS site</p>	<p>For Gen8: \$ sudo netAdm add --device=eth02 --route=default --gateway=<XMI_IP_Address_for_default_gateway> Route to eth02 added</p> <p>For Gen9: \$ sudo netAdm add --device=eth03 --route=default --gateway=<XMI_IP_Address_for_default_gateway> Route to eth03 added</p>
<p>5. <input type="checkbox"/></p>	<p>Wait a few minutes and then ping the default gateway to ensure connectivity.</p>	<p>\$ ping <XMI_IP_Address_for_default_gateway></p>
<p>6. <input type="checkbox"/></p>	<p>Log off the ILO</p>	<p>\$ exit</p>
<p>7. <input type="checkbox"/></p>	<p>Important NOTE: This interface must be un-configured</p>	<p>NOTE: If this method is used, then the For Gen8 eth02(Or eth03 for Gen9) interface must be un-configured in Step 1 of Procedure 2 in Section 5.0, “<i>Configuring SDS Servers A and B (1st SDS NOAM site only)</i>”.</p>
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>		

Appendix C. ESTABLISHING A LOCAL CONNECTION FOR ACCESSING THE SDS GUI

This procedure contains steps to connect a laptop to the SDS NOAM-A server via a directly cabled Ethernet connection and setting the IP address of the laptop. This procedure enables the user to use the laptop for accessing the SDS GUI prior to configuring the first SDS server.

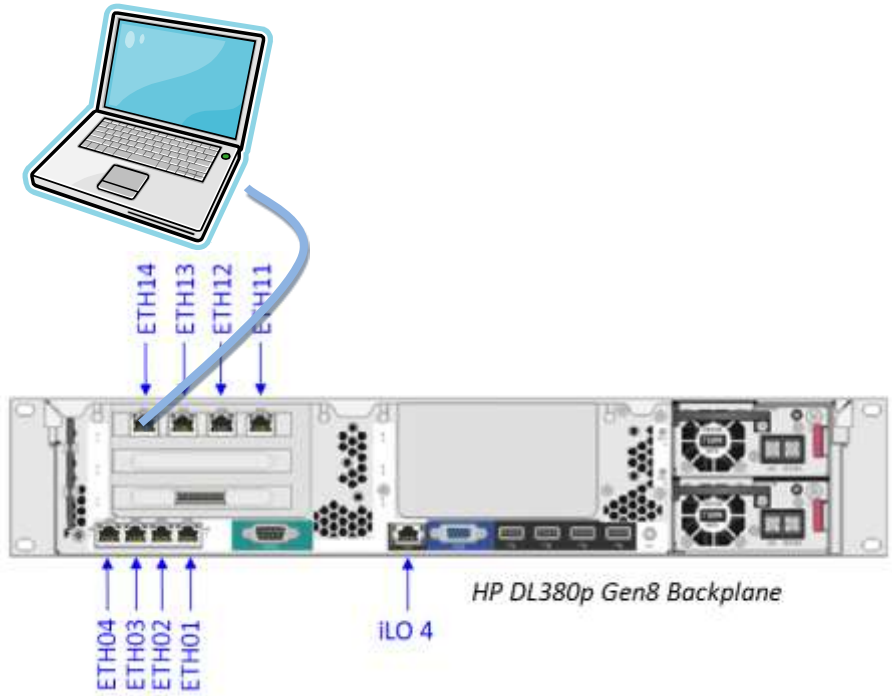
Step	In this procedure you will configure a temporary external IP Address for SDS Server NOAM A for the 1 st SDS site. The user will use this IP Address in a web browser to access the GUI to configure the first SDS server.	
1. <input type="checkbox"/>	Access the SDS NOAM-A server's console.	Connect to the SDS NOAM-A server's console using one of the access methods described in Section 2.3 .
2. <input type="checkbox"/>	<p>1) Access the command prompt.</p> <p>2) Log into the SDS NOAM-A server as the "admusr" user.</p>	<p>hostname1260476221 login: admusr Password: <admusr_password></p>
3. <input type="checkbox"/>	<p><i>This step, DL380 Gen8 only!</i></p> <p>Configure static IP 192.168.100.11 on the eth14 port of the SDS NOAM-A server.</p>	<pre>\$ sudo netAdm set --device=eth14 --address=192.168.100.11 --netmask=255.255.255.0 --onboot=yes</pre>
4. <input type="checkbox"/>	<p><i>This step, DL380 Gen9 only!</i></p> <p>Configure static IP 192.168.100.11 on the eth08 port of the SDS NOAM-A server.</p>	<pre>\$ sudo netAdm set --device=eth08 --address=192.168.100.11 --netmask=255.255.255.0 --onboot=yes</pre>

5.



Execute this step for HP DL380 Gen8:

- 1) Plug in one end of the Ethernet cable (straight-thru) into the back of SDS NOAM-A server ETH14 (top left port).
- 2) Plug the other end of the Ethernet cable into the laptop's Ethernet jack.

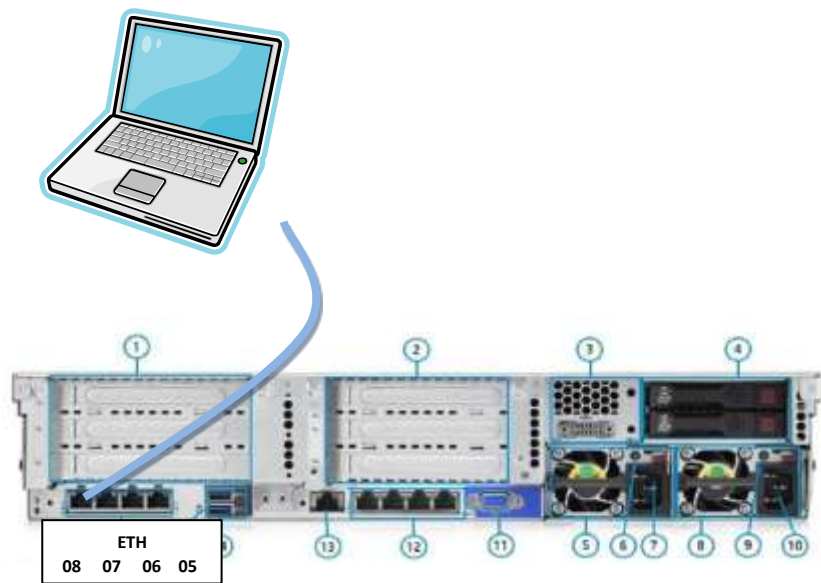


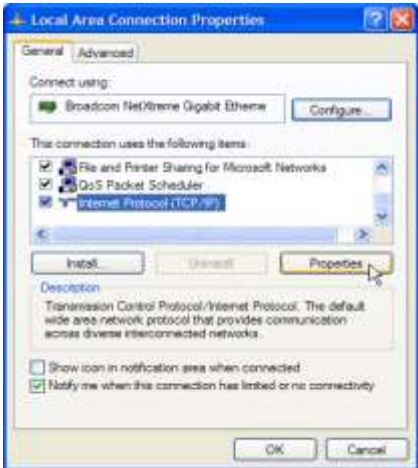

HP DL380 (Gen9), DC (Rear Panel):

Execute this step For HP DL380 Gen9:



- 1) Plug in one end of the Ethernet cable (straight-thru) into the back of SDS NOAM-A server **ETH08** (bottom left port).
- 2) Plug the other end of the Ethernet cable into the laptop's Ethernet jack.



<p>6.</p> <p><input type="checkbox"/></p>	<p>Access the laptop network interface card's TCP/IP "Properties" screen.</p> <p>NOTE: For this step follow the instruction specific to the laptop's OS (XP, Vista or Win 7).</p>	<p>Windows XP</p> <ul style="list-style-type: none"> Go to Control Panel Double-click on Network Connections Right-click the wired Ethernet Interface icon and select "Properties" <p>Select "Internet Protocol (TCP/IP)" and select "Properties"</p> 	<p>Windows Vista / Win 7</p> <ul style="list-style-type: none"> Go to Control Panel. Double-click on Network and Sharing Center Select Manage Network Connections (left menu) Right-click the wired Ethernet Interface icon and select "Properties" <p>Select "Internet Protocol Version 4 (TCP/IPv4)"</p> 
<p>7.</p> <p><input type="checkbox"/></p>	<p>1) Set the IP address and netmask of the laptop's network interface card to an IP address within the same network subnet as the statically assigned IP address used in Step 3 of this procedure (192.168.100.100 is suggested) and click "OK".</p> <p>2) Click "Close" from the network interface card's main "Properties" screen.</p>	<p>Internet Protocol (TCP/IP) Properties</p> <p>Use the following IP address:</p> <p>IP address: 192 168 100 100</p> <p>Subnet mask: 255 255 255 0</p> <p>Default gateway:</p> <p>Use the following DNS server addresses:</p> <p>Preferred DNS server:</p> <p>Alternate DNS server:</p> <p>Advanced</p> <p>OK</p> <p>Cancel</p> <p>1</p>	<p>Local Area Connection Properties</p> <p>Client for Microsoft Networks</p> <p>Deterministic Network Enhancer</p> <p>Wireless Intermediate Driver</p> <p>File and Printer Sharing for Microsoft Networks</p> <p>Close</p> <p>Cancel</p> <p>2</p>

THIS PROCEDURE HAS BEEN COMPLETED

- The user can now launch an approved web browser on this laptop and connect to <https://192.168.100.11> to access the SDS GUI using a temporary IP address.




Appendix D. CONFIGURE CISCO 4948E-F AGGREGATION SWITCHES


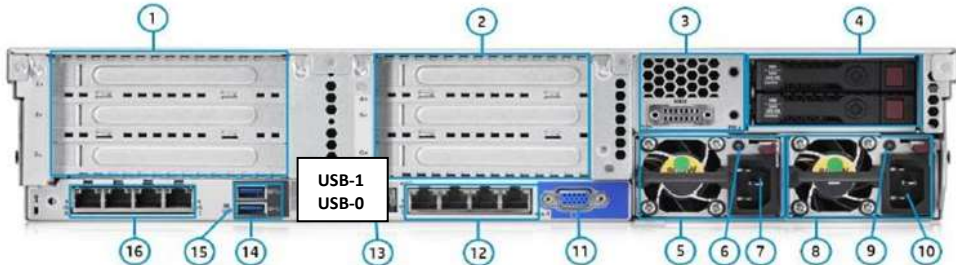
These switch configuration procedures require that the SDS hardware (servers and switches) are installed in a frame as indicated in the below picture:

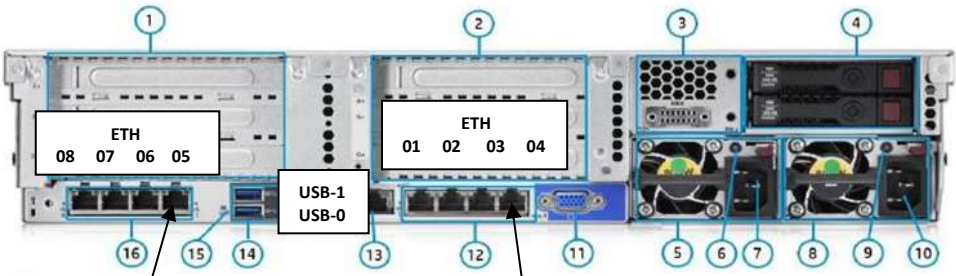
DL380 Gen8/Gen9		
U	SDS - DC - Seismic	
44	PDP-A	PWR
43		
42		
41		
40	OPEN	
39	FILLER PANEL	
38	FILLER PANEL	
37	FILLER PANEL	
36	FILLER PANEL	
35	FILLER PANEL	
34	FILLER PANEL	
33	FILLER PANEL	
32	FILLER PANEL	
31	SWITCH B (Cisco 4948E-F)	SW
30	FILLER PANEL	
29	SWITCH A (Cisco 4948E-F)	
28	FILLER PANEL	
27	FILLER PANEL	
26	FILLER PANEL	
25	FILLER PANEL	
24	FILLER PANEL	
23	FILLER PANEL	
22	FILLER PANEL	
21	FILLER PANEL	
20	FILLER PANEL	
19	FILLER PANEL	
18	FILLER PANEL	
17	FILLER PANEL	
16	FILLER PANEL	
15	FILLER PANEL	
14	FILLER PANEL	
13	FILLER PANEL	
12	FILLER PANEL	
11	FILLER PANEL	
10	FILLER PANEL	
9	SERVER C - QUERY (HP DL380 Gen8/Gen9)	Servers
8		
7		
6		
5	SERVER B - SDS NOAM (HP DL380 Gen8/Gen9)	
4	SERVER A - SDS NOAM (HP DL380 Gen8/Gen9)	
3	FILLER PANEL	
2	FILLER PANEL	
1	FILLER PANEL	

Figure 10- SDS Frame Layout

D.1 Verifying Cisco Switch Wiring (All SDS NOAM sites)

Step	Procedure	Result
<p>1.</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p>Set/Verify the following cable configuration at the Cisco 4948E-F switches:</p> <p>1) Verify that the ISL switch1A, Port 1 to switch1B, Port 1 is CONNECTED.</p> <p>2) Verify that the ISL switch1A, Port 2 to switch1B, Port 2 is CONNECTED.</p> <p>3) Verify that the ISL switch1A, Port 3 to switch1B, Port 3 is CONNECTED.</p> <p>4) Verify that the ISL switch1A, Port 4 to switch1B, Port 4 is CONNECTED.</p>	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="display: flex; align-items: center; margin-bottom: 20px;"> <div style="font-size: 2em; margin-right: 10px;">1B</div> <div style="text-align: center;">  <p>switch1B (Top)</p> </div> </div> <div style="display: flex; align-items: center;"> <div style="font-size: 2em; margin-right: 10px;">1A</div> <div style="text-align: center;">  <p>switch1A (Bottom)</p> </div> </div> </div> <p>Figure 11 - Cisco 4948E-F Switch ISL Connections</p>
<p>2.</p>	<p>DL380 Gen8 only :</p> <p>Verify that SERVER A has the Quad-Serial card interface ports connected to the Console Port each switch port</p>	<div style="text-align: center;">  </div> <p>Figure 12 - Cisco 4948E-F Switch (Console Port)</p>

Step	Procedure	Result
<p>4.</p>	<p><i>This step, DL380 Gen9 only!</i></p> <p>1) Verify that the switch1A, Console Port is CONNECTED to SERVER A, USB Port USB0</p> <p>2) Verify that the switch1B, Console Port is CONNECTED to SERVER A, USB Port USB1</p>	 <p>Figure 14 - Cisco 4948E-F Switch (Console Port)</p>  <p>Figure 15 - HP DL380 (Gen9), DC (Rear Panel)</p>

Step	Procedure	Result
<p>5.</p> <p><i>This step, DL380 Gen9 only!</i></p> <p><input type="checkbox"/> 1) Verify that switch1A, Port 5 is CONNECTED to SERVER A, ETH01</p> <p><input type="checkbox"/> 2) Verify that switch1B, Port 5 is CONNECTED to SERVER A, ETH02</p> <p><input type="checkbox"/> 3) Verify that switch1A, Port 6 is CONNECTED to SERVER B, ETH01</p> <p><input type="checkbox"/> 4) Verify that switch1B, Port 6 is CONNECTED to SERVER B, ETH02</p> <p><input type="checkbox"/> 5) Verify that switch1A, Port 7 is CONNECTED to SERVER C, ETH01</p> <p><input type="checkbox"/> 6) Verify that switch1B, Port 7 is CONNECTED to SERVER C, ETH02</p>		<p style="text-align: center;">HP DL380 (Gen9), DC (Rear Panel)</p>  <p style="text-align: center;">Figure 16 - HP DL380 (Gen9), DC (Rear Panel)</p>
THIS PROCEDURE HAS BEEN COMPLETED		

D.2 Configure Cisco 4948E-F Aggregation Switches

Steps within this procedure may refer to variable data indicated by text within "<>". Refer to this table for the proper value to insert depending on your system type.

CAUTION!! All netConfig commands must be typed **exactly** as they are shown here! Input is case sensitive, there is no input validation, and some terminal clients will inject bad characters if you backspace! Use **Ctrl-C** to exit netConfig if you make a mistake on any field and re-run that command.

Variable	management server	Serial Port (DL380 Gen8)	Serial Port (DL380 Gen9)
<switch1A_serial_port>	SERVER A	ttyS4	ttyUSB0
<switch1B_serial_port>	SERVER A	ttyS5	ttyUSB1
Variable			

<IOS_image_file> Fill in the appropriate value from [5]: _____	
Variable	Value
<switch_platform_username>	Contact Oracle's Customer Support Accessing My Oracle Support (MOS).
<switch_platform_password>	Contact Oracle's Customer Support Accessing My Oracle Support (MOS).
<switch_console_password>	Contact Oracle's Customer Support Accessing My Oracle Support (MOS).
<switch_enable_password>	Contact Oracle's Customer Support Accessing My Oracle Support (MOS).
<SERVER A_mgmtVLAN_ip_address >	Primary SDS: 169.254.1.11 DR SDS: 169.254.1.14
< SERVER B_mgmtVLAN_ip_address>	Primary SDS: 169.254.1.12 DR SDS: 169.254.1.15
<switch_mgmtVLAN_id>	2
<switch1A_mgmtVLAN_ip_address>	169.254.1.1
<netmask>	255.255.255.0
<switch1B_mgmtVLAN_ip_address>	169.254.1.2
<management_server_mgmtInterface>	bond0.2
<SERVER A_iLO_ip> (See NAPD documentation for IP Address)[1]	_____

< SERVER B_iLO_ip > (See NAPD documentation for IP Address)[1]	_____
---	-------

Ethernet Interface	DL380 Gen8 /	DL380 Gen9
<ethernet_interface_1>	bond0.2 (eth01, eth11)	bond0.2 (eth01, eth02)
<ethernet_interface_2>	bond0.4 (eth01, eth11)	bond0.4 (eth01, eth02)

Variable	Value
<platcfg_password>	Contact Oracle's Customer Support Accessing My Oracle Support (MOS).
<management_server_mgmtInterface>	bond0.2
<switch_backup_user>	Contact Oracle's Customer Support Accessing My Oracle Support (MOS)..
<switch_backup_user_password>	Contact Oracle's Customer Support Accessing My Oracle Support (MOS).

Note: Uplinks, if present, must be disconnected from the customer network prior to executing this procedure. One of the steps in this procedure will instruct when to reconnect these uplink cables. Refer to Section 0 for determining which cables are used for customer uplink.

Needed Material:

- HP Misc. Firmware DVD
- HP Solutions Firmware Upgrade Pack Release Notes [4]
- Application specific documentation (documentation that referred to this procedure)
- Switch A and B initialization xml files and SDS switch configuration xml file located on the NOAM server in the /usr/TKLC/plat/etc/switch/xml/ directory ISO.
- Application ISO's with netConfig and its required RPMs.

Note: If a procedural STEP fails to execute successfully, STOP and contact the Customer Care Center by referring to the [Customer Care Center](#) section of this document.

Appendix D.2: Configuring Cisco 4948E-F switches (All SDS NOAM sites)

Step	Procedure	Result
1. <input type="checkbox"/>	SERVER A: Access the SERVER A console.	Connect to the SERVER A console using one of the access methods described in Section 2.3 .
2. <input type="checkbox"/>	SERVER A: Log into the HP DL380 server as the "admusr" user.	login: admusr Using keyboard-interactive authentication. Password: <admusr_password>

Appendix D.2: Configuring Cisco 4948E-F switches (All SDS NOAM sites)

Step	Procedure	Result
<p>3.</p> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>SERVER A:</p> <p>Verify the switch1A initialization file exists</p> <p>Verify the switch1B initialization file exists</p> <p>Verify the switch configuration files exist</p>	<pre>\$ ls -l /usr/TKLC/plat/etc/switch/xml/switch1A_SDS_4948E_E-F_init.xml \$ ls -l /usr/TKLC/plat/etc/switch/xml/switch1B_SDS_4948E_E-F_init.xml \$ ls -l /usr/TKLC/plat/etc/switch/xml/Primary_switch1A_SDS_4948E_E-F_configure.xml \$ ls -l /usr/TKLC/plat/etc/switch/xml/Primary_switch1B_SDS_4948E_E-F_configure.xml \$ ls -l /usr/TKLC/plat/etc/switch/xml/DR_switch1A_SDS_4948E_E-F_configure.xml \$ ls -l /usr/TKLC/plat/etc/switch/xml/DR_switch1B_SDS_4948E_E-F_configure.xml</pre> <p>If any file does not exist, contact Customer Care Center for assistance.</p>
<p>4.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p><u>DL 380 GEN 8:</u></p> <p>Verify quad-serial port mappings (<i>quad-dongle S1 = ttyS4, quad-dongle S2 = ttyS5</i>)</p>	<pre>\$ sudo setserial -g /dev/ttyS{1..12} /dev/ttyS1, UART: 16550A, Port: 0x02f8, IRQ: 3 /dev/ttyS2, UART: unknown, Port: 0x03e8, IRQ: 4 /dev/ttyS3, UART: unknown, Port: 0x02e8, IRQ: 3 /dev/ttyS4, UART: 16950/954, Port: 0x0000, IRQ: 24 /dev/ttyS5, UART: 16950/954, Port: 0x0000, IRQ: 24 /dev/ttyS6, UART: 16950/954, Port: 0x0000, IRQ: 24 /dev/ttyS7, UART: 16950/954, Port: 0x0000, IRQ: 24 /dev/ttyS8, UART: unknown, Port: 0x0000, IRQ: 0 /dev/ttyS9, UART: unknown, Port: 0x0000, IRQ: 0 /dev/ttyS10, UART: unknown, Port: 0x0000, IRQ: 0 /dev/ttyS11, UART: unknown, Port: 0x0000, IRQ: 0 /dev/ttyS12, UART: unknown, Port: 0x0000, IRQ: 0</pre> <p>Output should match the example shown above; if not, contact Customer Care Center for assistance.</p>
<p>5.</p>	<p>SERVER A:</p> <p><u>For GEN 9:</u></p> <p>Verify serial port mapping from USB0 and USB1.</p>	<pre>\$ sudo setserial -g /dev/ttyUSB* /dev/ttyUSB0, UART: unknown, Port: 0x0000, IRQ: 0, Flags: low_latency /dev/ttyUSB1, UART: unknown, Port: 0x0000, IRQ: 0, Flags: low_latency</pre>

Appendix D.2: Configuring Cisco 4948E-F switches (All SDS NOAM sites)

Step	Procedure	Result
<p>6.</p> <p><input type="checkbox"/></p>	<p>SERVER A:</p> <p>For Gen8:</p> <p>Setup conserver serial console access for switch1A</p>	<pre> \$ sudo conserverSetup -i -s <SERVER_A_mgmtVLAN_ip_address> Example: \$ sudo conserverSetup -i -s 169.254.1.11 Enter your platcfg username, followed by [ENTER]:platcfg Enter your platcfg password, followed by [ENTER]: Target address is local to this host. Running conserverSetup in local mode. Checking Platform Revision for local TPD installation... The local machine is running: Product Name: SDS Base Distro Release: 8.5.0.0.0_90.11.0 Checking Platform Revision for remote TPD installation... The remote machine is running: Product Name: SDS Base Distro Release: 8.5.0.0.0_90.11.0 Enter the switch name for this console connection (default: "switch1A_console"), followed by [ENTER]: switch1A_console Enter the serial device designation for switch1A_console (default: "ttyUSB0"), followed by [ENTER]:ttyS4 Configure additional serial consoles [Y/n]? [press ENTER for default <Y>]:n Configuring switch 'switch1A_console' console server...Configured. Configuring console repository service.....Configured. Remote host has the following available interfaces: bond0 bond0.4 bond1 eth01 eth02 eth11 eth12 Enter the name of the bond on the remote server(default: "bond0"), followed by [ENTER]: <PRESS ENTER KEY HERE> ...No entry provided for bond. Resorting to default. Slave interfaces for bond0: bond0 interface: eth01 bond0 interface: eth11 </pre>

Appendix D.2: Configuring Cisco 4948E-F switches (All SDS NOAM sites)

Step	Procedure	Result
7.	<p>SERVER A: Note: For DL380 GEN9 only: Setup conserver serial console access for switch1A</p>	<pre> \$ sudo conserverSetup -i -u <SERVER_A_mgmtVLAN_ip_address> Example: \$ sudo conserverSetup -i -u 169.254.1.11 Enter your platcfg username, followed by [ENTER]:platcfg Enter your platcfg password, followed by [ENTER]: Target address is local to this host. Running conserverSetup in local mode. Checking Platform Revision for local TPD installation... The local machine is running: Product Name: SDS Base Distro Release: 8.5.0.0.0_90.11.0 Checking Platform Revision for remote TPD installation... The remote machine is running: Product Name: SDS Base Distro Release: 8.5.0.0.0_90.11.0 Enter the switch name for this console connection (default: "switch1A_console"), followed by [ENTER]: switch1A_console Enter the serial device designation for switch1A_console (default: "ttyUSB0"), followed by [ENTER]:ttyUSB0 Configure additional serial consoles [Y/n]? [press ENTER for default <Y>]:n Configuring switch 'switch1A_console' console server...Configured. Configuring console repository service.....Configured. Remote host has the following available interfaces: bond0 bond0.4 bond1 eth01 eth02 eth11 eth12 Enter the name of the bond on the remote server(default: "bond0"), followed by [ENTER]: [PRESS ENTER KEY] ...No entry provided for bond. Resorting to default. Slave interfaces for bond0: bond0 interface: eth01 bond0 interface: eth02 </pre>

Appendix D.2: Configuring Cisco 4948E-F switches (All SDS NOAM sites)

Step	Procedure	Result
8.	<p>SERVER A:</p> <p>Note: For DL380 GEN8:</p> <p>Setup consver serial console access for switch1B.</p>	<pre> \$ sudo consverSetup -i -s <SERVER_A_mgmtVLAN_ip_address> Example: \$ sudo consverSetup -i -s 169.254.1.11 Enter your platcfg username, followed by [ENTER]:platcfg Enter your platcfg password, followed by [ENTER]: Checking Platform Revision for local TPD installation... The local machine is running: Product Name: SDS Base Distro Release: 8.5.0.0.0_90.11.0 Checking Platform Revision for remote TPD installation... The remote machine is running: Product Name: SDS Base Distro Release: 8.5.0.0.0_90.11.0 Enter the switch name for this console connection (default: "switch1A_console"), followed by [ENTER]:switch1B_console Enter the serial device designation for switch1B_console (default: "ttyUSB0"), followed by [ENTER]:ttyS5 Configure additional serial consoles [Y/n]? [press ENTER for default <Y>]:n Configuring switch 'switch1B_console' console server...Configured. Configuring console repository service... Repo entry for "console_service" already exists; deleting entry for: Service Name: console_service Type: consver Host: 169.254.1.11 ...Configured. Remote host has the following available interfaces: bond0 bond0.2 bond0.4 bond1 eth01 eth02 eth11 eth12 eth13 eth14 Enter the name of the bond on the remote server(default: "bond0"), followed by [ENTER]: ...No entry provided for bond. Resorting to default. Slave interfaces for bond0: bond0 interface: eth01 bond0 interface: eth11 </pre>

Appendix D.2: Configuring Cisco 4948E-F switches (All SDS NOAM sites)

Step	Procedure	Result
<p>9.</p> <p><input type="checkbox"/></p>	<p>SERVER A:</p> <p>Note : For DL380 Gen9</p> <p>Setup conserver serial console access for switch1B.</p>	<pre> \$ sudo conserverSetup -i -u <SERVER_A_mgmtVLAN_ip_address> Example: \$ sudo conserverSetup -i -u 169.254.1.11 Enter your platcfg username, followed by [ENTER]:platcfg Enter your platcfg password, followed by [ENTER]: Checking Platform Revision for local TPD installation... The local machine is running: Product Name: SDS Base Distro Release: 8.5.0.0.0_90.11.0 Checking Platform Revision for remote TPD installation... The remote machine is running: Product Name: SDS Base Distro Release: 8.5.0.0.0_90.11.0 Enter the switch name for this console connection (default: "switch1A_console"), followed by [ENTER]:switch1B_console Enter the serial device designation for switch1B_console (default: "ttyUSB0"), followed by [ENTER]:ttyUSB1 Configure additional serial consoles [Y/n]? [press ENTER for default <Y>]:n Configuring switch 'switch1B_console' console server...Configured. Configuring iptables for port(s) 782...Configured. Configuring iptables for port(s) 1024:65535...Configured. Configuring console repository service... Repo entry for "console_service" already exists; deleting entry for: Service Name: console_service Type: conserver Host: 169.254.1.11 ...Configured. Remote host has the following available interfaces: bond0 bond0.2 bond0.4 bond1 eth01 eth02 eth11 eth12 eth13 eth14 Enter the name of the bond on the remote server(default: "bond0"), followed by [ENTER]: ...No entry provided for bond. Resorting to default. Slave interfaces for bond0: bond0 interface: eth01 bond0 interface: eth02 </pre>

Appendix D.2: Configuring Cisco 4948E-F switches (All SDS NOAM sites)

Step	Procedure	Result
<p>10.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Add a repository for SSH service</p>	<pre>\$ sudo netConfig --repo addService name=ssh_service Service type? (tftp, ssh, conserver, oa) ssh SSH host IP? 169.254.1.11 SSH username: admusr SSH password? <user_password> Verify password: <user_password> Add service for ssh_service successful</pre>
<p>11.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Verify you have entered the information correctly for SSH service</p>	<pre>\$ sudo netConfig --repo showService name=ssh_service Service Name: ssh_service Type: ssh Host: 169.254.1.11 Options: password: 615EBD88232A2EFD0080AC990393083D user: admusr</pre>
<p>12.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Add a repository for TFTP service</p>	<pre>\$ sudo netConfig --repo addService name=tftp_service Service type? (tftp, ssh, conserver, oa) tftp Service host? 169.254.1.11 Directory on host? /var/lib/tftpboot/ Add service for tftp_service successful</pre>
<p>13.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Verify that you have entered the information correctly for TFTP service</p>	<pre>\$ sudo netConfig --repo showService name=tftp_service Service Name: tftp_service Type: tftp Host: 169.254.1.11 Options: dir: /var/lib/tftpboot/</pre>
<p>14.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Create console service for switch1A</p>	<pre>\$ sudo netConfig --repo addService name=switch1A_consvc Service type? (tftp, ssh, conserver, oa) conserver Conserver host IP? 169.254.1.11 Conserver username? platcfg Service password? <platcfg_password> Verify password: <platcfg_password> Add service for switch1A_consvc successful</pre>

Appendix D.2: Configuring Cisco 4948E-F switches (All SDS NOAM sites)

Step	Procedure	Result
<p>15. <input type="checkbox"/></p>	<p>SERVER A: Verify you have entered the information correctly for switch1A console service</p>	<pre>\$ sudo netConfig --repo showService name=switch1A_consvc Service Name: switch1A_consvc Type: conserver Host: 169.254.1.11 Options: password: 0B902ECD13D5BD2F1B57B5BFC6E95FE9 user: platcfg</pre>
<p>16. <input type="checkbox"/></p>	<p>SERVER A: Add repository for switch1B console service</p>	<pre>\$ sudo netConfig --repo addService name=switch1B_consvc Service type? (tftp, ssh, conserver, oa) conserver Conserver host IP? 169.254.1.11 Conserver username? platcfg Service password?: <platcfg_password> Verify password: <platcfg_password> Add service for console_service successful</pre>
<p>17. <input type="checkbox"/></p>	<p>SERVER A: Verify you have entered the information correctly for switch1B console service</p>	<pre>\$ sudo netConfig --repo showService name=switch1B_consvc Service Name: switch1B_consvc Type: conserver Host: 169.254.1.11 Options: password: 0B902ECD13D5BD2F1B57B5BFC6E95FE9 user: platcfg</pre>
<p>18. <input type="checkbox"/></p>	<p>SERVER A: Verify and remove the service named "console_service" if present</p>	<pre>\$ sudo netConfig --repo showService name=console_service Services: Service Name: console_service Type: conserver Host: 169.254.1.11 Options: password: 0B902ECD13D5BD2F1B57B5BFC6E95FE9 user: platcfg If service named "console_service is present, then remove it. Otherwise skip to the next step. \$ sudo netConfig --repo deleteService name=console_service Are you sure you want to delete console_service (y/n)? y Deleting service console_service...</pre>

Appendix D.2: Configuring Cisco 4948E-F switches (All SDS NOAM sites)

Step	Procedure	Result
<p>19.</p> <p><input type="checkbox"/></p>	<p>SERVER A:</p> <p>Add repository for switch1A</p>	<p>Note: - Remember to copy firmware file to this server.</p> <pre>\$ sudo netConfig --repo addDevice name=switch1A --reuseCredentials Device Vendor? Cisco Device Model? 4948E-F What is the IPv4 (CIDR notation) or IPv6 (address/prefix notation) address for management?: 169.254.1.1/24 Is the management interface a port or a vlan? [vlan]:vlan What is the VLAN ID of the management VLAN? [2]: 2 What is the name of the management VLAN? [management]: management What switchport connects to the management server? [GE40]: GE5 What is the switchport mode (access trunk) for the management server port? [trunk]: trunk What are the allowed vlans for the management server port? [1,2]: 1-4 Enter the name of the firmware file [cat4500e-entservicesk9-mz.122-54.WO.bin]: Enter the name of the upgrade file transfer service: tftp_service File transfer service to be used in upgrade: tftp_service WARNING: Could not find firmware file on local host. If using a local service, please update the device entry using the editDevice command or copy the file to the correct location. Should the init oob adapter be added (y/n)? y Adding console nit protocol for switch1A using oob... What is the name of the service used for OOB access? switch1A_consvc What is the name of the console for OOB access? switch1A_console What is the platform access username? platcfg What is the device console password? Verify password: What is the platform user password? Verify password: What is the device privileged mode password? Verify password: Should the live network adapter be added (y/n)? y Adding cli protocol for switch1A using network... Network device access already set: 169.254.1.1 Should the live oob adapter be added (y/n)? y Adding cli protocol for switch1A using oob... OOB device access already set: switch1A_consvc Device named switch1A successfully added.</pre>

Appendix D.2: Configuring Cisco 4948E-F switches (All SDS NOAM sites)

Step	Procedure	Result
<p>20.</p> <p><input type="checkbox"/></p>	<p>SERVER A:</p> <p>Add repository for switch1B</p>	<pre> \$ sudo netConfig --repo addDevice name=switch1B --reuseCredentials Device Vendor? Cisco Device Model? 4948E-F What is the IPv4 (CIDR notation) or IPv6 (address/prefix notation) address for management?: 169.254.1.2/24 Is the management interface a port or a vlan? [vlan]:vlan What is the VLAN ID of the management VLAN? [2]: 2 What is the name of the management VLAN? [management]: management What switchport connects to the management server? [GE40]: GE5 What is the switchport mode (access trunk) for the management server port? [trunk]: trunk What are the allowed vlans for the management server port? [1,2]: 1-4 Enter the name of the firmware file [cat4500e-entservicesk9-mz.122-54.WO.bin]: Enter the name of the upgrade file transfer service: tftp_service File transfer service to be used in upgrade: tftp_service WARNING: Could not find firmware file on local host. If using a local service, please update the device entry using the editDevice command or copy the file to the correct location. Should the init oob adapter be added (y/n)? y Adding console nit protocol for switch1A using oob... What is the name of the service used for OOB access? switch1B_consvc What is the name of the console for OOB access? switch1B_console What is the platform access username? platcfg What is the device console password? Verify password: What is the platform user password? Verify password: What is the device privileged mode password? Verify password: Should the live network adapter be added (y/n)? y Adding cli protocol for switch1A using network... Network device access already set: 169.254.1.2 Should the live oob adapter be added (y/n)? y Adding cli protocol for switch1A using oob... OOB device access already set: switch1B_consvc Device named switch1B successfully added. </pre>

Appendix D.2: Configuring Cisco 4948E-F switches (All SDS NOAM sites)

Step	Procedure	Result
<p>21.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Verify you have entered the information correctly</p>	<pre>\$ sudo netConfig --repo listDevices Devices: Device: switch1A Vendor: Cisco Model: 4948E-F Access: Network: 169.254.1.1 Access: OOB: Service: switch1A_consvc Console: switch1A_console Init Protocol Configured Live Protocol Configured Device: switch1B Vendor: Cisco Model: 4948E-F Access: Network: 169.254.1.2 Access: OOB: Service: switch1B_consvc Console: switch1B_console Init Protocol Configured Live Protocol Configured</pre>
<p>22.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Log in to switch1A</p>	<p><i>Example:</i></p> <pre>console -M <SERVER A_mgmtVLAN_ip_address> -l platcfg switch1A_console \$ /usr/bin/console -M 169.254.1.11 -l platcfg switch1A_console</pre> <p>Enter platcfg@pmac5000101's password: <platcfg_password> [Enter `^Ec?' for help] Press <Enter></p>
<p>23.</p> <input type="checkbox"/>	<p>switch1A:</p> <p>Note the image version for comparison in a following step.</p>	<pre>Switch> show version include image System image file is "bootflash:cat4500e-entservicesk9-mz.122-54.XO.bin"</pre> <p>Note the image version for comparison in a following step.</p>



IF THE SWITCH1A (4948E-F) IOS DOES NOT DISPLAY THE CORRECT VERSION IN THE ABOVE STEP, THEN STOP AND EXECUTE THE FOLLOWING STEPS:

- 1) **Appendix D.3** Cisco 4948E-F IOS Upgrade (All SDS NOAM sites)
- 2) Return to this Procedure and continue with the following Step. **Beginning with Step 43.**

NOTE: For each switch, compare the IOS version from previous steps with the IOS version specified in the Firmware Upgrade Pack Release Notes [4] for the switch model being used.

If the version from previous steps is equal or greater than the version from the release notes and has "k9" in the name, denoting support for crypto, then continue with the next step, there is no upgrade necessary for this switch.

Appendix D.2: - Configure Cisco 4948E-F Aggregation Switches (All SDS NOAM sites)

Step	Procedure	Result
24. <input type="checkbox"/>	Switch1A: Execute "show bootflash" to verify that only the correct bootflash is present.	Switch> show bootflash -#- --length-- -----date/time----- path 1 25771102 Nov 29 2011 08:53:46 cat4500e-entservicesk9-mz.122-54.XO.bin 95072256 bytes available (33210368 bytes used) Note the image version for comparison in a following step
25. <input type="checkbox"/>	Switch1A: Reset switch back to factory defaults by deleting the VLANs.	Switch> en Password: Switch# write erase Erasing the nvram filesystem will remove all configuration files! Continue? [confirm] <ENTER> [OK] Erase of nvram: complete Switch# *Jan 26 12:53:06.547: %SYS-7-NV_BLOCK_INIT: Initialized the geometry of nvram <ENTER> Switch# config t Enter configuration commands, one per line. End with CNTL/Z. Switch(config)# no vlan 2-1024 %Default VLAN 1002 may not be deleted. %Default VLAN 1003 may not be deleted. %Default VLAN 1004 may not be deleted. %Default VLAN 1005 may not be deleted. Switch(config)# config-register 0x2101 Switch(config)# end Switch#
26. <input type="checkbox"/>	Switch1A: Reload the switch.	Switch# reload System configuration has been modified. Save? [yes/no]: no Proceed with reload? [confirm] <ENTER>

Step	Procedure	Result
<p>27.</p> <input type="checkbox"/>	<p>Switch1A:</p> <p>Monitor the switch reboot until it returns to a login prompt.</p>	<p>cisco WS-C4948E-F (MPC8548) processor (revision 5) with 1048576K bytes of memory. Processor board ID CAT1529S91B MPC8548 CPU at 1GHz, Cisco Catalyst 4948E-F Last reset from Reload 1 Virtual Ethernet interface 48 Gigabit Ethernet interfaces 4 Ten Gigabit Ethernet interfaces 511K bytes of non-volatile configuration memory.</p> <p>Press RETURN to get started! <ENTER></p> <p>Switch></p>
<p>28.</p> <input type="checkbox"/>	<p>Switch1A:</p> <p>Enter "enable" mode.</p>	<p>Switch#enable Switch#</p>
<p>29.</p> <input type="checkbox"/>	<p>Switch1A:</p> <p>Verify that you see the correct IOS version listed in the bootflash.</p>	<p>Switch#dir bootflash: Directory of bootflash:/</p> <pre> 7 -rw- 25771102 Jan 31 2012 07:45:56 +00:00 cat4500e-entservicesk9-mz.122-54.XO.bin </pre> <p>128282624 bytes total (72122368 bytes free) Switch#</p>
<p>30.</p> <input type="checkbox"/>	<p>Switch1A:</p> <p>Close connection to switch.</p>	<p>Switch#quit</p> <p>Switch con0 is now available</p> <p>Press RETURN to get started.</p>
<p>31.</p> <input type="checkbox"/>	<p>switch1A:</p> <p>Note the image version for comparison in a following step.</p>	<p>Exit from console by typing CTRL+E+c+. (combination control character and 'e' character, followed by sequence 'c' character, then 'period' character) and you will be returned to the server prompt.</p>
<p>32.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Log in to switch1B</p>	<p>Example: console -M <SERVER A_mgmtVLAN_ip_address> -l platcfg switch1B_console</p> <p>\$ /usr/bin/console -M 169.254.1.11 -l platcfg switch1B_console</p> <p>Enter platcfg@pmac5000101's password: <platcfg_password> [Enter ^Ec? for help] Press <Enter></p>
<p>33.</p> <input type="checkbox"/>	<p>Switch1B:</p> <p>Note the image version for comparison in a following step.</p>	<p>Switch> show version include image System image file is "bootflash:cat4500e-entservicesk9-mz.122-54.XO.bin"</p> <p>Note the image version for comparison in a following step.</p>



IF THE SWITCH1B IOS DOES NOT DISPLAY THE CORRECT VERSION IN THE ABOVE STEP, THEN STOP AND EXECUTE THE FOLLOWING STEPS:

- 1) **Appendix D.3 Cisco 4948E-F IOS Upgrade (All SDS NOAM sites); Beginning with Step 26.**
- 2) Return to this Procedure and continue with the following Step.

NOTE: For each switch, compare the IOS version from previous steps with the IOS version specified in the Firmware Upgrade Pack Release Notes [4] for the switch model being used.

If the version from previous steps is equal or greater than the version from the release notes and has "k9" in the name, denoting support for crypto, then continue with the next step, there is no upgrade necessary for this switch.

Step	Procedure	Result
34. <input type="checkbox"/>	Switch1B: Execute " show bootflash " to verify that only the correct bootflash is present.	Switch> show bootflash -#- --length-- -----date/time----- path 1 25771102 Nov 29 2011 09:04:04 cat4500e-entservicesk9-mz.122-54.XO.bin 95072256 bytes available (33210368 bytes used) Note the image version for comparison in a following step
35. <input type="checkbox"/>	Switch1B: Reset switch back to factory defaults by deleting the VLANs.	Switch> en Password: Switch# write erase Erasing the nvram filesystem will remove all configuration files! Continue? [confirm] <ENTER> [OK] Erase of nvram: complete Switch# *Jan 26 12:53:06.547: %SYS-7-NV_BLOCK_INIT: Initialized the geometry of nvram <ENTER> Switch# config t Enter configuration commands, one per line. End with CNTL/Z. Switch(config)# no vlan 2-1024 %Default VLAN 1002 may not be deleted. %Default VLAN 1003 may not be deleted. %Default VLAN 1004 may not be deleted. %Default VLAN 1005 may not be deleted. Switch(config)# config-register 0x2101 Switch(config)# end Switch#
36. <input type="checkbox"/>	Switch1B: Reload the switch.	Switch# reload System configuration has been modified. Save? [yes/no]: no Proceed with reload? [confirm] <ENTER>

Step	Procedure	Result
<p>37.</p> <input type="checkbox"/>	<p>Switch1B:</p> <p>Monitor the switch reboot until it returns to a login prompt.</p>	<p>cisco WS-C4948E-F (MPC8548) processor (revision 5) with 1048576K bytes of memory. Processor board ID CAT1529S91B MPC8548 CPU at 1GHz, Cisco Catalyst 4948E-F Last reset from Reload 1 Virtual Ethernet interface 48 Gigabit Ethernet interfaces 4 Ten Gigabit Ethernet interfaces 511K bytes of non-volatile configuration memory.</p> <p>Press RETURN to get started! <ENTER></p> <p>Switch></p>
<p>38.</p> <input type="checkbox"/>	<p>Switch1B:</p> <p>Enter "enable" mode.</p>	<p>Switch#enable Switch#</p>
<p>39.</p> <input type="checkbox"/>	<p>Switch1B:</p> <p>Verify that you see the correct IOS version listed in the bootflash.</p>	<p>Switch#dir bootflash: Directory of bootflash:/</p> <pre> 7 -rw- 25771102 Jan 31 2012 07:45:56 +00:00 cat4500e-entservicesk9-mz.122-54.XO.bin </pre> <p>128282624 bytes total (72122368 bytes free) Switch#</p>
<p>40.</p> <input type="checkbox"/>	<p>Switch1B:</p> <p>Close connection to switch.</p>	<p>Switch#quit</p> <p>Switch con0 is now available</p> <p>Press RETURN to get started.</p>
<p>41.</p> <input type="checkbox"/>	<p>Switch1B:</p> <p>Note the image version for comparison in a following step.</p>	<p>Exit from console by typing CTRL+E+c+. (combination control character and 'e' character, followed by sequence 'c' character, then 'period' character) and you will be returned to the server prompt.</p>
<p>42.</p>		<p>Open firewall with command:</p> <pre> sudo iptablesAdm insert --type=rule --protocol=ipv4 --domain=10platnet --table=filter --chain=INPUT --persist=yes --match="-s 169.254.1.0/24 -p udp --dport 69 -j ACCEPT" --location=1 </pre> <p>Turn on tftp:</p> <pre> \$ tpdProvd --client --noxml --ns=Xinetd startXinetdService service tftp Login on Remote: platcfg Password of platcfg: <platcfg_password> 1 \$ </pre>

Step	Procedure	Result
<p>43.</p> <input type="checkbox"/>	<p>SERVER A: Initialize switch 1A</p>	<p>\$ sudo netConfig --file=/usr/TKLC/plat/etc/switch/xml/switch1A_SDS_4948E_E-F_init.xml</p> <p>Processing file: /usr/TKLC/plat/etc/switch/xml/switch1A_SDS_4948E-F_init.xml</p> <p>\$</p> <p>Note: This step takes about 2-3 minutes to complete</p> <p>Check the output of this command for any errors. If this fails for any reason, stop this procedure and contact Customer Care Center.</p> <p>A successful completion of netConfig will return the user to the prompt.</p>
<p>44.</p> <input type="checkbox"/>	<p>SERVER A: Initialize switch 1B</p>	<p>\$ sudo netConfig --file=/usr/TKLC/plat/etc/switch/xml/switch1B_SDS_4948E_E-F_init.xml</p> <p>Processing file: /usr/TKLC/plat/etc/switch/xml/switch1B_SDS_4948E-F_init.xml</p> <p>\$</p> <p>Note: This step takes about 2-3 minutes to complete</p> <p>Check the output of this command for any errors. If this fails for any reason, stop this procedure and contact Customer Care Center.</p> <p>A successful completion of netConfig will return the user to the prompt.</p>

Step	Procedure	Result
45. <input type="checkbox"/>	SERVER A: Ping switch 1A's SVI (router interface) addresses to verify switch initialization. Note: VIP addresses are not yet available.	<pre> \$ ping -c 15 169.254.1.1 PING 169.254.1.1 (169.254.1.1) 56(84) bytes of data. 64 bytes from 169.254.1.1: icmp_seq=1 ttl=255 time=3.09 ms 64 bytes from 169.254.1.1: icmp_seq=2 ttl=255 time=0.409 ms 64 bytes from 169.254.1.1: icmp_seq=3 ttl=255 time=0.417 ms 64 bytes from 169.254.1.1: icmp_seq=4 ttl=255 time=0.418 ms 64 bytes from 169.254.1.1: icmp_seq=5 ttl=255 time=0.419 ms 64 bytes from 169.254.1.1: icmp_seq=6 ttl=255 time=0.419 ms 64 bytes from 169.254.1.1: icmp_seq=7 ttl=255 time=0.429 ms 64 bytes from 169.254.1.1: icmp_seq=8 ttl=255 time=0.423 ms 64 bytes from 169.254.1.1: icmp_seq=9 ttl=255 time=0.381 ms 64 bytes from 169.254.1.1: icmp_seq=10 ttl=255 time=0.416 ms 64 bytes from 169.254.1.1: icmp_seq=11 ttl=255 time=0.381 ms 64 bytes from 169.254.1.1: icmp_seq=12 ttl=255 time=0.426 ms 64 bytes from 169.254.1.1: icmp_seq=13 ttl=255 time=0.420 ms 64 bytes from 169.254.1.1: icmp_seq=14 ttl=255 time=0.415 ms 64 bytes from 169.254.1.1: icmp_seq=15 ttl=255 time=0.419 ms --- 169.254.1.1 ping statistics --- 15 packets transmitted, 15 received, 0% packet loss, time 14006ms rtt min/avg/max/mdev = 0.381/0.592/3.097/0.669 ms \$ </pre>

Step	Procedure	Result
<p>46.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Ping switch 1B's SVI (router interface) addresses to verify switch initialization.</p> <p>Note: VIP addresses are not yet available.</p>	<pre>\$ ping -c 15 169.254.1.2</pre> <p>PING 169.254.1.2 (169.254.1.2) 56(84) bytes of data.</p> <p>64 bytes from 169.254.1.2: icmp_seq=9 ttl=255 time=2.76 ms</p> <p>64 bytes from 169.254.1.2: icmp_seq=10 ttl=255 time=0.397 ms</p> <p>64 bytes from 169.254.1.2: icmp_seq=11 ttl=255 time=0.448 ms</p> <p>64 bytes from 169.254.1.2: icmp_seq=12 ttl=255 time=0.382 ms</p> <p>64 bytes from 169.254.1.2: icmp_seq=13 ttl=255 time=0.426 ms</p> <p>64 bytes from 169.254.1.2: icmp_seq=14 ttl=255 time=0.378 ms</p> <p>64 bytes from 169.254.1.2: icmp_seq=15 ttl=255 time=0.431 ms</p> <p>--- 169.254.1.2 ping statistics ---</p> <p>15 packets transmitted, 7 received, +6 errors, 53% packet loss, time 14003ms</p> <p>rtt min/avg/max/mdev = 0.378/0.747/2.769/0.825 ms, pipe 3</p> <p>! WARNING !: The user needs to verify that the above ping is successful before continuing on to the next step. If the ping continues to receive "Destination Host Unreachable", then stop this procedure and contact MOS My Oracle Support.</p>
<p>47.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Configure switch 1A</p>	<pre>\$ sudo netConfig --file=/usr/TKLC/plat/etc/switch/xml/Primary_switch1A_SDS_4948E-E-F_configure.xml</pre> <p>Processing file: /usr/TKLC/plat/etc/switch/xml/Primary_switch1A_SDS_4948E-F_configure.xml</p> <p>\$</p> <p>Note: This step takes about 2-3 minutes to complete.</p> <ul style="list-style-type: none"> • Check the output of this command for any errors. If this fails for any reason, stop this procedure and contact Customer Care Center. • A successful completion of netConfig will return the user to the prompt.

Step	Procedure	Result
48.	<p>SERVER A:</p> <p>Configure switch 1B</p>	<pre>\$ sudo netConfig --file=/usr/TKLC/plat/etc/switch/xml/Primary_switch1B_SDS_4948E-E-F_configure.xml</pre> <p>Processing file: /usr/TKLC/plat/etc/switch/xml/Primary switch1B_SDS_4948E-F_configure.xml</p> <pre>\$</pre> <p>Note: This step takes about 2-3 minutes to complete.</p> <ul style="list-style-type: none"> • Check the output of this command for any errors. If this fails for any reason, stop this procedure and contact Customer Care Center. • A successful completion of netConfig will return the user to the prompt.
49.	<p><input type="checkbox"/> SERVER A:</p> <p>Undo the temporary changes. (If netconfig is used to update the firmware then this is not needed)</p>	<pre>\$ tpdProvd --client --noxml --ns=Xinetd stopXinetdService service ftp</pre> <p>Login on Remote: platcfg</p> <p>Password of platcfg: <platcfg_password></p> <pre>1</pre>
50.	<p>Close firewall. (If netconfig is used to update the firmware then this is not needed)</p>	<p>Close firewall with command:</p> <pre>sudo iptablesAdm delete --type=rule --protocol=ipv4 --domain=10platnet --table=filter --chain=INPUT --persist=yes --match="-s 169.254.1.0/24 -p udp --dport 69 -j ACCEPT" --location=1</pre>
51.	<p><input type="checkbox"/> SERVER A:</p> <p>Verify the switch is using the correct IOS image per platform version.</p>	<pre>\$ sudo netConfig --device=switch1A listFirmware</pre> <p>Image: cat4500e-entservicesk9-mz.122-54.XO.bin</p> <pre>\$ sudo netConfig --device=switch1B listFirmware</pre> <p>Image: cat4500e-entservicesk9-mz.122-54.XO.bin</p>

Step	Procedure	Result
<p>52.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Execute the “service network restart” to restore SERVER A networking to original state.</p> <p>Output similar to that shown on the right may be observed.</p>	<pre> \$ sudo service network restart [admusr@mrsvnc-sds-NO-a xml]\$ sudo service network restart Shutting down interface bond0.2: [OK] Shutting down interface bond0.4: [OK] Shutting down interface bond0: [OK] Shutting down interface bond1: [OK] Shutting down loopback interface: [OK] Bringing up loopback interface: [OK] Bringing up interface bond0: [OK] Bringing up interface bond1: Determining if ip address 10.75.160.146 is already in use for device bond1... [OK] Bringing up interface bond0.2: Determining if ip address 169.254.1.11 is already in use for device bond0.2... [OK] Bringing up interface bond0.4: Determining if ip address 169.254.100.11 is already in use for device bond0.4... [OK] \$ </pre>

Step	Procedure	Result
53. <input type="checkbox"/>	SERVER A: Ping switch 1A's SVI (router interface) addresses to verify switch configuration. Note: VIP addresses are not yet available.	<pre> \$ ping -c 5 169.254.1.1 PING 169.254.1.1 (169.254.1.1) 56(84) bytes of data. 64 bytes from 169.254.1.1: icmp_seq=1 ttl=255 time=0.430 ms 64 bytes from 169.254.1.1: icmp_seq=2 ttl=255 time=0.426 ms 64 bytes from 169.254.1.1: icmp_seq=3 ttl=255 time=0.427 ms 64 bytes from 169.254.1.1: icmp_seq=4 ttl=255 time=0.426 ms 64 bytes from 169.254.1.1: icmp_seq=5 ttl=255 time=0.431 ms --- 169.254.1.1 ping statistics --- 5 packets transmitted, 5 received, 0% packet loss, time 4003ms rtt min/avg/max/mdev = 0.426/0.428/0.431/0.002 ms \$ </pre>
54. <input type="checkbox"/>	SERVER A: Ping switch 1B's SVI (router interface) addresses to verify switch configuration. Note: VIP addresses are not yet available	<pre> \$ ping -c 5 169.254.1.2 PING 169.254.1.2 (169.254.1.2) 56(84) bytes of data. 64 bytes from 169.254.1.2: icmp_seq=1 ttl=255 time=0.401 ms 64 bytes from 169.254.1.2: icmp_seq=2 ttl=255 time=0.394 ms 64 bytes from 169.254.1.2: icmp_seq=3 ttl=255 time=0.407 ms 64 bytes from 169.254.1.2: icmp_seq=4 ttl=255 time=0.393 ms 64 bytes from 169.254.1.2: icmp_seq=5 ttl=255 time=0.401 ms --- 169.254.1.2 ping statistics --- 5 packets transmitted, 5 received, 0% packet loss, time 3999ms rtt min/avg/max/mdev = 0.393/0.399/0.407/0.013 ms \$ </pre>

Step	Procedure	Result
<p>55.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Verify SSH capability from server A to switch 1A.</p>	<pre>\$ ssh platcfg@169.254.1.1</pre> <p>The authenticity of host '169.254.1.1 (169.254.1.1)' can't be established.</p> <p>RSA key fingerprint is fd:83:32:34:3f:06:2f:12:e0:ea:e2:73:e2:c1:1e:6e.</p> <p>Are you sure you want to continue connecting (yes/no)? yes</p> <p>Warning: Permanently added '169.254.1.1' (RSA) to the list of known hosts.</p> <p>Password: <switch_platform_password></p>
<p>56.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Close SSH connection to switch 1A.</p>	<pre>\$ quit</pre> <p>Connection to 169.254.1.1 closed.</p>
<p>57.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Verify SSH capability from server A to switch 1B</p>	<pre>\$ ssh platcfg@169.254.1.2</pre> <p>The authenticity of host '169.254.1.2 (169.254.1.2)' can't be established.</p> <p>RSA key fingerprint is 3a:1b:e0:92:99:73:9d:04:92:3f:72:37:c0:1c:a6:95.</p> <p>Are you sure you want to continue connecting (yes/no)? yes</p> <p>Warning: Permanently added '169.254.1.2' (RSA) to the list of known hosts.</p> <p>Password: <switch_platform_password></p>
<p>58.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Close SSH connection to switch 1A.</p>	<pre>\$ quit</pre> <p>Connection to 169.254.1.2 closed.</p>
<p>59.</p> <input type="checkbox"/>	<p>SERVER B:</p> <p>Ping switch 1A's SVI (router interface) addresses to verify switch configuration.</p> <p>Note: VIP addresses are not yet available.</p>	<pre>\$ ping -c 5 169.254.1.1</pre> <p>PING 169.254.1.1 (169.254.1.1) 56(84) bytes of data.</p> <p>64 bytes from 169.254.1.1: icmp_seq=1 ttl=255 time=0.430 ms</p> <p>64 bytes from 169.254.1.1: icmp_seq=2 ttl=255 time=0.426 ms</p> <p>64 bytes from 169.254.1.1: icmp_seq=3 ttl=255 time=0.427 ms</p> <p>64 bytes from 169.254.1.1: icmp_seq=4 ttl=255 time=0.426 ms</p> <p>64 bytes from 169.254.1.1: icmp_seq=5 ttl=255 time=0.431 ms</p> <p>--- 169.254.1.1 ping statistics ---</p> <p>5 packets transmitted, 5 received, 0% packet loss, time 4003ms</p> <p>rtt min/avg/max/mdev = 0.426/0.428/0.431/0.002 ms</p>



Step	Procedure	Result
60. <input type="checkbox"/>	<p>SERVER B:</p> <p>Ping switch 1B's SVI (router interface) addresses to verify switch configuration.</p> <p>Note: VIP addresses are not yet available</p>	<pre>\$ ping -c 5 169.254.1.2 PING 169.254.1.2 (169.254.1.2) 56(84) bytes of data: 64 bytes from 169.254.1.2: icmp_seq=1 ttl=255 time=0.401 ms 64 bytes from 169.254.1.2: icmp_seq=2 ttl=255 time=0.394 ms 64 bytes from 169.254.1.2: icmp_seq=3 ttl=255 time=0.407 ms 64 bytes from 169.254.1.2: icmp_seq=4 ttl=255 time=0.393 ms 64 bytes from 169.254.1.2: icmp_seq=5 ttl=255 time=0.401 ms --- 169.254.1.2 ping statistics --- 5 packets transmitted, 5 received, 0% packet loss, time 3999ms rtt min/avg/max/mdev = 0.393/0.399/0.407/0.013 ms</pre>
61. <input type="checkbox"/>	<p>SERVER B:</p> <p>Verify SSH capability from server B to switch 1A.</p>	<pre>\$ ssh platcfg@169.254.1.1 The authenticity of host '169.254.1.1 (169.254.1.1)' can't be established. RSA key fingerprint is fd:83:32:34:3f:06:2f:12:e0:ea:e2:73:e2:c1:1e:6e. Are you sure you want to continue connecting (yes/no)? yes Warning: Permanently added '169.254.1.1' (RSA) to the list of known hosts. Password: <switch_platform_password></pre>
62. <input type="checkbox"/>	<p>SERVER B:</p> <p>Close SSH connection to switch 1A.</p>	<pre>switch1A> quit Connection to 169.254.1.1 closed.</pre>
63. <input type="checkbox"/>	<p>SERVER B:</p> <p>Verify SSH capability from server B to switch 1B</p>	<pre>\$ ssh platcfg@169.254.1.2 The authenticity of host '169.254.1.2 (169.254.1.2)' can't be established. RSA key fingerprint is 3a:1b:e0:92:99:73:9d:04:92:3f:72:37:c0:1c:a6:95. Are you sure you want to continue connecting (yes/no)? yes Warning: Permanently added '169.254.1.2' (RSA) to the list of known hosts. Password: <switch_platform_password></pre>
64. <input type="checkbox"/>	<p>SERVER B:</p> <p>Close SSH connection to switch 1B.</p>	<pre>switch1B> quit Connection to 169.254.1.2 closed.</pre>
65. <input type="checkbox"/>	<p>SERVER A:</p> <p>Exit from the command line to return the server console to the login prompt.</p>	<pre>\$ exit logout</pre>
THIS PROCEDURE HAS BEEN COMPLETED		

D.3 Cisco 4948E-F IOS Upgrade (All SDS NOAM sites)

Appendix D.3: Cisco 4948E-F IOS Upgrade (SDS sites)

Step	Procedure	Result
1. <input type="checkbox"/>	SERVER A: Access the SERVER A console.	Connect to the SERVER A console using one of the access methods described in Section 2.3 .
2. <input type="checkbox"/>	SERVER A: 1) Access the command prompt. 2) Log into the HP DL380 server as the "admusr" user.	hostname1260476221 login: admusr Password: <admusr_password>
3. <input type="checkbox"/>	SERVER A: Output similar to that shown on the right will appear as the server access the command prompt.	*** TRUNCATED OUTPUT *** VPATH=/opt/TKLCcomcol/runcm5.16:/opt/TKLCcomcol/cm5.16 PRODPATH= RELEASE=5.16 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@hostname1260476221 ~]\$
4. <input type="checkbox"/>	SERVER A: Verify IOS images on the system	\$ ls /var/lib/tftpboot/ <IOS_image_file> If the correct IOS version is displayed, skip forward to Step 8 .

Appendix D.3: Cisco 4948E-F IOS Upgrade (SDS sites)

Step	Procedure	Result
<p>5.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Place USB drive containing the HP Misc Firmware image with the correct 4948E-F IOS version into the SERVER A front panel USB port.</p>	 <p>Figure 3 - HP DL380 Gen8, Front Panel (USB Port)</p>  <p>Figure 4 - HP DL380 Gen9, Front Panel (USB Port)</p>
<p>6.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Copy IOS image onto the system</p>	<pre>\$ mount /dev/scd0 /media/cdrom \$ cp /media/cdrom/files/<New_IOS_image_file> /var/lib/tftpboot/ \$ chmod 644 /var/lib/tftpboot/<New_IOS_image_file> \$ umount /media/cdrom</pre>
<p>7.</p>	<p>Open firewall</p>	<p>Open firewall with command:</p> <pre>sudo iptablesAdm insert --type=rule --protocol=ipv4 --domain=10platnet --table=filter --chain=INPUT --persist=yes --match="-s 169.254.1.0/24 -p udp --dport 69 -j ACCEPT" --location=1</pre>
<p>8.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Prepare the system for IOS transfer.</p>	<pre>\$ tpdProvd --client --noxml --ns=Xinetd startXinetdService service tftp Login on Remote: platcfg Password of platcfg: <platcfg_password> 1 \$</pre>
<p>9.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Verify the current bonded interface configuration.</p>	<pre>\$ ifconfig grep bond bond0 Link encap:Ethernet HWaddr 98:4B:E1:6E:87:6C bond0.2 Link encap:Ethernet HWaddr 98:4B:E1:6E:87:6C bond0.4 Link encap:Ethernet HWaddr 98:4B:E1:6E:87:6C bond1 Link encap:Ethernet HWaddr 98:4B:E1:6E:87:6E \$</pre> <p>Execute one of the following options:</p> <ul style="list-style-type: none"> • If bond0 & bond0.2 are both present, skip to Step 11. • If only bond0 is present, continue with the following step.

Appendix D.3: Cisco 4948E-F IOS Upgrade (SDS sites)

Step	Procedure	Result
<p>10.</p> <p><input type="checkbox"/></p>	<p>SERVER A:</p> <p>For Gen8:</p> <p>Create the bond0.2 and add interfaces eth01 & eth11 to it.</p> <p>For Gen9:</p> <p>Create the bond0.2 and add interfaces eth01 & eth02 to it.</p>	<p>For Gen8:</p> <pre>\$ sudo netAdm delete --device=bond0</pre> <pre>\$ sudo netAdm add --device=bond0 --onboot=yes --type=Bonding --mode=active-backup --miimon=100 --bootproto=none</pre> <pre>\$ sudo netAdm set --device=eth01 --bootproto=none --type=Ethernet --master=bond0 --slave=yes --onboot=yes</pre> <pre>\$ sudo netAdm set --device=eth11 --bootproto=none --type=Ethernet --master=bond0 --slave=yes --onboot=yes</pre> <p>Add the <SERVER A_mgmtVLAN_IP_address> to bond0.2</p> <pre>\$ sudo netAdm add --device=bond0.2 --address=169.254.1.11 --netmask=255.255.255.0 --onboot=yes</pre> <p>For Gen9:</p> <pre>\$ sudo netAdm delete --device=bond0</pre> <pre>\$ sudo netAdm add --device=bond0 --onboot=yes --type=Bonding --mode=active-backup --miimon=100 --bootproto=none</pre> <pre>\$ sudo netAdm set --device=eth01 --bootproto=none --type=Ethernet --master=bond0 --slave=yes --onboot=yes</pre> <pre>\$ sudo netAdm set --device=eth02 --bootproto=none --type=Ethernet --master=bond0 --slave=yes --onboot=yes</pre> <p>Add the <SERVER A_mgmtVLAN_IP_address> to bond0.2</p> <pre>\$ sudo netAdm add --device=bond0.2 --address=169.254.1.11 --netmask=255.255.255.0 --onboot=yes</pre>

Appendix D.3: Cisco 4948E-F IOS Upgrade (SDS sites)

Step	Procedure	Result
<p>11.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Disable the bond0.2 interface to switch1B and verify the bond0.2 IP address.</p>	<p>On SERVER A ensure that the interface connected to switch1A is the only interface available and obtain the IP address of <SERVER A_mgmtVLAN_Interface> by performing the following commands:</p> <p>For Gen8:</p> <pre>\$ sudo ifdown eth11 \$ sudo ifup eth01 \$ sudo ifconfig bond0.2</pre> <p>bond0.2 Link encap:Ethernet HWaddr 98:4B:E1:6E:87:6C inet addr:169.254.1.11 Bcast:169.254.1.255Mask:255.255.255.0 inet6 addr: fe80::9a4b:e1ff:fe6e:876c/64 Scope:Link UP BROADCAST RUNNING MASTER MULTICAST MTU:1500 Metric:1 RX packets:99384 errors:0 dropped:0 overruns:0 frame:0 TX packets:105440 errors:0 dropped:0 overruns:0 carrier:0 collisions:0 txqueuelen:0 RX bytes:4603240 (4.3 MiB) TX bytes:55536818 (52.9 MiB)</p> <p>The command output should contain the IP address of the <SERVER A_mgmtVLAN_ip_address>.</p> <p>For Gen 9:</p> <pre>\$ sudo ifdown eth02 \$ sudo ifup eth01 \$ sudo ifconfig bond0.2</pre> <p>bond0.2 Link encap:Ethernet HWaddr 98:4B:E1:6E:87:6C inet addr:169.254.1.11 Bcast:169.254.1.255Mask:255.255.255.0 inet6 addr: fe80::9a4b:e1ff:fe6e:876c/64 Scope:Link UP BROADCAST RUNNING MASTER MULTICAST MTU:1500 Metric:1 RX packets:99384 errors:0 dropped:0 overruns:0 frame:0 TX packets:105440 errors:0 dropped:0 overruns:0 carrier:0 collisions:0 txqueuelen:0 RX bytes:4603240 (4.3 MiB) TX bytes:55536818 (52.9 MiB)</p> <p>The command output should contain the IP address of the <SERVER A_mgmtVLAN_ip_address>.</p>
<p>12.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Connect to switch1A console</p>	<pre>console -M <SERVER A_mgmtVLAN_ip_address> -l platcfg switch1A_console \$ /usr/bin/console -M 169.254.1.11 -l platcfg switch1A_console Enter platcfg@pmac5000101's password: <platcfg_password> [Enter ^Ec? for help] Press <Enter></pre>

Appendix D.3: Cisco 4948E-F IOS Upgrade (SDS sites)

Step	Procedure	Result
17. <input type="checkbox"/>	switch1A: Locate old IOS image to be removed	Switch# dir bootflash: Directory of bootflash:/ 1 -rwx 17779888 May 11 2011 02:25:23 -05:00 cat4500-entservicesk9-mz.122-54.WO.bin 2 -rwx 17779888 May 11 2011 02:25:23 -05:00 cat4500-ipbasek9-mz.122-54.WO.bin 60817408 bytes total (43037392 bytes free) NOTE: Here, you should note which IOS you uploaded, and the one which was already on the switch. Note the one that was already on the switch, this will be the one to delete, as notated by the variable <OLD_IOS_image>
18. <input type="checkbox"/>	switch1A: Remove old IOS image	Switch# delete /force /recursive bootflash:<OLD_IOS_image> Switch#
19. <input type="checkbox"/>	switch1A: Locate old IOS image to be removed	Switch# dir bootflash: Directory of bootflash:/ 1 -rwx 17779888 May 11 2011 02:25:23 -05:00 cat4500-entservicesk9-mz.122-54.WO.bin 60817408 bytes total (43037392 bytes free) NOTE: Here, you should see only the IOS version you uploaded.
20. <input type="checkbox"/>	Switch1A: Reset switch back to factory defaults by deleting the VLANs.	Switch# write erase Erasing the nvram filesystem will remove all configuration files! Continue? [confirm] <ENTER> [OK] Erase of nvram: complete Switch# *Jan 26 12:53:06.547: %SYS-7-NV_BLOCK_INIT: Initialized the geometry of nvram Switch# config t Enter configuration commands, one per line. End with CNTL/Z. Switch(config)# no vlan 2-1024 %Default VLAN 1002 may not be deleted. %Default VLAN 1003 may not be deleted. %Default VLAN 1004 may not be deleted. %Default VLAN 1005 may not be deleted. Switch(config)# config-register 0x2101 Switch(config)# end Switch#
21. <input type="checkbox"/>	switch1A: Reload the switch	Switch# reload System configuration has been modified. Save? [yes/no]: no Proceed with reload? [confirm] <ENTER> ! WARNING!: It is extremely important to answer “no” to the above “Save?” option.
22. <input type="checkbox"/>	switch1A: After the reload, enter <i>enable</i> mode.	Switch> enable Switch#

Appendix D.3: Cisco 4948E-F IOS Upgrade (SDS sites)

Step	Procedure	Result
23. <input type="checkbox"/>	switch1A: Wait until the switch is reloaded, then confirm the correct IOS image.	Switch> show version include image System image file is "bootflash:cat4500-entservicesk9-mz.122-54.WO.bin" Switch> NOTE: Here, you should see only the IOS version you uploaded. If the IOS version is not at the correct version, stop here and contact Customer Care Center.
24. <input type="checkbox"/>	switch1A: Locate old IOS image to be removed.	Switch# dir bootflash: Directory of bootflash:/ 1 -rwx 17779888 May 11 2011 02:25:23 -05:00 cat4500-entservicesk9-mz.122-54.WO.bin 60817408 bytes total (43037392 bytes free) NOTE: Here, you should see only the IOS version you uploaded.
25. <input type="checkbox"/>	switch1A: Exit the switch1A console session.	Switch# <CTRL-e><c><.> Hot Key sequence: Ctrl-E, C, period
26. <input type="checkbox"/>	SERVER A: Disable the bond0.2 interface to switch1A.	On SERVER A ensure that the interface of the server connected to switch1B is the only interface up and obtain the IP address of <SERVER_A_mgmtInterface> by performing the following commands: For Gen8: \$ sudo ifup eth11 \$ sudo ifdown eth01 For Gen9: \$ ifup eth02 \$ ifdown eth01 NOTE: The command output should contain the IP address of the variable <SERVER_A_mgmtVLAN_ip_address>.
27. <input type="checkbox"/>	SERVER A: Connect to switch1B console	console -M <SERVER_A_mgmtVLAN_ip_address> -l platcfg switch1B_console \$ /usr/bin/console -M 169.254.1.11 -l platcfg switch1B_console Enter platcfg@pmac5000101's password: <platcfg_password> [Enter ^Ec? for help] Press <Enter>
28. <input type="checkbox"/>	switch1B: Enter enable mode	Switch> enable Switch#

Appendix D.3: Cisco 4948E-F IOS Upgrade (SDS sites)

Step	Procedure	Result
<p>29.</p> <input type="checkbox"/>	<p>switch1B:</p> <p>Configure switch port with this sequence of commands</p>	<pre>Switch# conf t Switch(config)# vlan 2 Switch(config)# int vlan 2 Switch(config-if)# ip address 169.254.1.2 255.255.255.0 Switch(config-if)# no shut Switch(config-if)# int gi1/5 Switch(config-if)# switchport mode trunk Switch(config-if)# spanning-tree portfast trunk Switch(config-if)# end</pre>
<p>30.</p> <input type="checkbox"/>	<p>switch1B:</p> <p>Test connectivity</p>	<pre>ping <management_SERVER A_mgmtVLAN_ip_address></pre> <pre>Switch# ping 169.254.1.11</pre> <p>Type escape sequence to abort. Sending 5, 100-byte ICMP Echos to <SERVER A_mgmtVLAN_ip_address>, timeout is 2 seconds: !!!!! Success rate is 100 percent (5/5), round trip min/avg/max = 1/1/4 ms</p> <p><i>NOTE: If ping is not 100% successful the first time, repeat the ping. If unsuccessful again, double check that the procedure was completed correctly by repeating all steps up to this point. If after repeating those steps, ping is still unsuccessful, contact Customer Care Center.</i></p>
<p>31.</p> <input type="checkbox"/>	<p>switch1B:</p> <p>Upload IOS image to switch</p>	<pre>Switch# copy tftp: bootflash:</pre> <p>Address or name of remote host []? <management_SERVER A_mgmtVLAN_ip_address></p> <p>Source filename []? <New_IOS_image_file></p> <p>Destination filename [<New_IOS_image_file>]? <ENTER></p> <p>Press <Enter> here, you do NOT want to change the filename</p> <pre>Accessing tftp://<management_SERVER B_mgmtVLAN_ip_address>/<IOS_image_file>... Loading <IOS_image_file> from <SERVER A_mgmtVLAN_ip_address> (via Vlan2): !!! !! !! [OK - 45606 bytes]</pre> <p>45606 bytes copied in 3.240 secs (140759 bytes/sec)</p>
<p>32.</p> <input type="checkbox"/>	<p>switch1B:</p> <p>Locate old IOS image to be removed</p>	<pre>Switch# dir bootflash:</pre> <p>Directory of bootflash:/</p> <pre>1 -rwx 17779888 May 11 2011 02:25:23 -05:00 cat4500-entservicesk9-mz.122-54.WO.bin 2 -rwx 17779888 May 11 2011 02:25:23 -05:00 cat4500-ipbasek9-mz.122-54.WO.bin 60817408 bytes total (43037392 bytes free)</pre> <p><i>NOTE: Here, you should note which IOS you uploaded, and the one which was already on the switch. Note the one that was already on the switch, this will be the one to delete, as notated by the variable <OLD_IOS_image></i></p>
<p>33.</p> <input type="checkbox"/>	<p>switch1B:</p> <p>Remove old IOS image</p>	<pre>Switch# delete /force /recursive bootflash:<OLD_IOS_image></pre> <pre>Switch#</pre>

Appendix D.3: Cisco 4948E-F IOS Upgrade (SDS sites)

Step	Procedure	Result
34. <input type="checkbox"/>	switch1B: Locate old IOS image to be removed	Switch# dir bootflash: Directory of bootflash:/ 1 -rwx 17779888 May 11 2011 02:25:23 -05:00 cat4500-entservicesk9-mz.122-54.WO.bin 60817408 bytes total (43037392 bytes free) Here, you should see only the IOS version you uploaded.
35. <input type="checkbox"/>	Switch1B: Reset switch back to factory defaults by deleting the VLANs.	Switch# write erase Erasing the nvram filesystem will remove all configuration files! Continue? [confirm] <ENTER> [OK] Erase of nvram: complete Switch# *Jan 26 12:53:06.547: %SYS-7-NV_BLOCK_INIT: Initialized the geometry of nvram Switch# config t Enter configuration commands, one per line. End with CNTL/Z. Switch(config)# no vlan 2-1024 %Default VLAN 1002 may not be deleted. %Default VLAN 1003 may not be deleted. %Default VLAN 1004 may not be deleted. %Default VLAN 1005 may not be deleted. Switch(config)# config-register 0x2101 Switch(config)# end Switch#
36. <input type="checkbox"/>	switch1B: Reload the switch	Switch# reload Proceed with reload? [confirm] <ENTER> System config modified. save? [yes/no): no ! WARNING !: It is extremely important to answer "no" to the above "Save?" option. Proceed with reload? [confirm] <ENTER>
37. <input type="checkbox"/>	switch1B: Wait until the switch is reloaded, then confirm the correct IOS image	Switch> show version include image System image file is "bootflash:cat4500-entservicesk9-mz.122-54.WO.bin" Switch>
38. <input type="checkbox"/>	switch1B: Enter enable mode	Switch> enable Switch#
39. <input type="checkbox"/>	switch1B: Locate old IOS image to be removed	Switch# dir bootflash: Directory of bootflash:/ 1 -rwx 17779888 May 11 2011 02:25:23 -05:00 cat4500-entservicesk9-mz.122-54.WO.bin 60817408 bytes total (43037392 bytes free) Here, you should see only the IOS version you uploaded.

Appendix D.3: Cisco 4948E-F IOS Upgrade (SDS sites)


Step	Procedure	Result
<p>40.</p> <input type="checkbox"/>	<p>switch1A: Exit the switch1A console session.</p>	<p>Switch# <CTRL-e><c><.></p> <p>Hot Key sequence: Ctrl-E, C, period</p>
<p>41.</p> <input type="checkbox"/>	<p>SERVER A: Re-enable the bond0.2 interface to switch1A.</p>	<p>On SERVER A ensure that the both bond0.2 interfaces are up:</p> <p>For Gen8:</p> <pre>\$ sudo ifup eth11 \$ sudo ifup eth01</pre> <p>For Gen9:</p> <pre>\$ sudo ifup eth02 \$ sudo ifup eth01</pre>
<p>42.</p>	<p>Close firewall</p>	<pre>\$ sudo iptablesAdm delete --type=rule --protocol=ipv4 --domain=10platnet --table=filter --chain=INPUT --persist=yes --match="-s 169.254.1.0/24 -p udp --dport 69 -j ACCEPT" --location=1</pre>
<p>43.</p> <input type="checkbox"/>	<p>SERVER A: Stop the “tftp” service.</p>	<pre>\$ tpdProvd --client --noxml --ns=Xinetd stopXinetdService service tftp</pre> <p>Login on Remote: platcfg</p> <p>Password of platcfg: <platcfg_password></p> <p>1</p>
<p>44.</p>	<p>Return to Appendix D.2</p>	
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>		

Appendix E. CREATING AN XML FILE FOR INSTALLING NETWORK ELEMENTS

SDS Network Elements can be created by using an XML configuration file. The SDS software image (*.iso) contains two examples of XML configuration files for “NO” (Network OAM&P) and “SO” (System OAM) networks.

These files are named **SDS_NO_NE.xml** and **SDS_SO_NE.xml** and are stored on the **/usr/TKLC/sds/vlan** directory.

The customer is required to create individual XML files for each of their SDS Network Elements (NOAM & SOAM). The format for each of these XML files is identical. Below is an example of the **SDS_NO_NE.xml** file.

	<ul style="list-style-type: none"> THE HIGHLIGHTED VALUES IN EACH TABLE MUST BE UPDATED BY THE USER FOR EACH NETWORK ELEMENT (SITE).
---	--

NOTE_1: The **Description** column in this example includes comments for this document only. **Do not include** the Description column in the actual XML file used during installation.

NOTE_2: The **MgmtVLAN** network should only be implemented when (2) dedicated **Aggregation Switches** (typically Cisco 4948E-F) are used exclusively for the **SDS NOAM** and **Query Server (RMS) IMI network**. The **MgmtVLAN** network should be **removed** from the Network Element XML file when SDS Aggregation Switches are not part of the implementation.

NOTE_3: When installing **IPv6** for the **XMI** or **IMI** networks, please note that the **MgmtVLAN** (if implemented) should remain in the **IPv4** format only.

NOTE_4: When creating the SDS **SOAM NE XML** file, the user should be aware that the **XMI** and **IMI** networks subnets chosen **MUST EXACTLY MATCH** those used by the associated **DSR NE** within the same SOAM enclosure.

Table 4 - SDS Network Element Configuration File (IPv4)

XML File Text	Description
<?xml version="1.0"?>	
<networkelement>	
<name> NO_RLGHNC </name>	[Range = 1-32 character string] - Must be alphanumeric or underscore.
<networks>	
<network>	
<name> MgmtVLAN </name>	Name of customer management network. Note: Do NOT change this name.
<vlanId> 2 </vlanId>	[Range = 2-4094.] - The VLAN ID to use for this VLAN.
<ip> 169.254.1.0 </ip>	[Range = A valid IP address] - The network address of this VLAN
<mask> 255.255.255.0 </mask>	Subnetting to apply to servers within this VLAN
</network>	
<network>	
<name> XMI </name>	Name of customer external network. Note: Do NOT change this name.
<vlanId> 3 </vlanId>	[Range = 2-4094.] - The VLAN ID to use for this VLAN.
<ip> 10.250.55.0 </ip>	[Range = A valid IP address] - This network must be the same as the associated DSR NE XMI network subnet within the same SOAM enclosure.
<mask> 255.255.255.0 </mask>	Must be the same as the associated DSR NE XMI netmask within the same SOAM enclosure.
<gateway> 10.250.55.1 </gateway>	[Range = A valid IP address] - This gateway address must be the same as the associated DSR NE XMI network gateway within the same SOAM enclosure.
<isDefault>true</isDefault>	[Range = true/false] - true if this is the network with the default gateway.
</network>	
<network>	
<name> IMI </name>	Name of customer internal network. Note: Do NOT change this name.
<vlanId> 4 </vlanId>	[Range = 2-4094.] - The VLAN ID to use for this VLAN.
<ip> 169.254.100.0 </ip>	[Range = A valid IP address] - This network must be the same as the DSR IMI network subnet within the SOAM enclosure.
<mask> 255.255.255.0 </mask>	Must be the same as the DSR IMI netmask within the SOAM enclosure.
<nonRoutable>true</nonRoutable>	[Range = true / false] - Determines whether or not the IMI network subnet is treated as a routable network.
</network>	
</networks>	
</networkelement>	

Table 5 - SDS Network Element Configuration File (IPv6)

XML File Text	Description
<?xml version="1.0"?>	
<networkelement>	
<name> NO_RLGHNC </name>	[Range = 1-32 character string] - Must be alphanumeric or underscore.
<networks>	
<network>	
<name> MgmtVLAN </name>	Name of customer management network. Note: Do NOT change this name.
<vlanId> 2 </vlanId>	[Range = 2-4094.] - The VLAN ID to use for this VLAN.
<ip> 169.254.1.0 </ip>	[Range = A valid IP address] - The network address of this VLAN
<mask> 255.255.255.0 </mask>	Subnetting to apply to servers within this VLAN
</network>	
<network>	
<name> XMI </name>	Name of customer external network. Note: Do NOT change this name.
<vlanId> 3 </vlanId>	[Range = 2-4094.] - The VLAN ID to use for this VLAN.
<ip> 2001:db8:0:241::0 </ip>	[Range = A valid IP address] - This network must be the same as the associated DSR NE XMI network subnet within the same SOAM enclosure.
<mask> /64 </mask>	Must be the same as the associated DSR NE XMI netmask within the same SOAM enclosure.
<gateway> 2001:db8:0:241::1 </gateway>	[Range = A valid IP address] - This gateway address must be the same as the associated DSR NE XMI network gateway within the same SOAM enclosure.
<isDefault>true</isDefault>	[Range = true/false] - true if this is the network with the default gateway.
</network>	
<network>	
<name> IMI </name>	Name of customer internal network. Note: Do NOT change this name.
<vlanId> 4 </vlanId>	[Range = 2-4094.] - The VLAN ID to use for this VLAN.
<ip> fd01::0 </ip>	[Range = A valid IP address] - This network must be the same as the associated DSR NE XMI network subnet within the same SOAM enclosure.
<mask> /64 </mask>	Must be the same as the associated DSR NE XMI netmask within the same SOAM enclosure.
<nonRoutable> true </nonRoutable>	[Range = true / false] - Determines whether or not the IMI network subnet is treated as a routable network.
</network>	
</networks>	
</networkelement>	

Appendix F. NETBACKUP CLIENT INSTALLATION

This section contains procedures for configuration of additional services to Appworks-based application servers.

STEP #	Procedure	Description
<p>This procedure will download and install NetBackup Client software on the server.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT ORACLE'S ACCESSING MY ORACLE SUPPORT (MOS). AND ASK FOR ASSISTANCE.</p>		
<p>1.</p> <input type="checkbox"/>	<p>Install Netbackup Client Software</p>	<p>Execute Section 3.10.5 <i>Application NetBackup Client Procedures</i> of reference [6] to complete this step.</p> <p>NOTE: If installing Netbackup client software, it must be installed and configured on all SDS servers (Primary SDS and DR SDS servers only).</p> <p>NOTE: Location of the bstart_notify and bpend_notify scripts is required for the execution of this step. These scripts are located as follows:</p> <p>/usr/TKLC/appworks/sbin/bstart_notify /usr/TKLC/appworks/sbin/bpend_notify</p>
<p>2.</p> <input type="checkbox"/>	<p>Link notify scripts to well-known path stated in the above step</p>	<p>Link the notify scripts to well-known path stated in the above step</p> <p>ln -s <path>/bstart_notify /usr/opencv/netbackup/bin/bstart_notify ln -s <path>/bpend_notify /usr/opencv/netbackup/bin/bpend_notify</p>
<p>3.</p> <input type="checkbox"/>	<p>Verify if the Netbackup port 1556 is opened for IPv4 protocol</p>	<p>Verify if the NetBackup port 1556 is opened on IPv4 protocol:</p> <p>iptables -L 60sds-INPUT -n grep 1556</p> <p>If there is no output, then enable the port 1556 for NetBackup on IPv4:</p> <p>iptablesAdm append --type=rule --protocol=ipv4 --domain=60sds --table=filter --chain=INPUT --match='-m state --state NEW -m tcp -p tcp --dport 1556 -j ACCEPT' --persist=yes</p>
<p>4.</p> <input type="checkbox"/>	<p>Verify if the Netbackup port 1556 is opened for IPv6 protocol</p>	<p>Verify if the NetBackup port 1556 is opened on IPv6 protocol:</p> <p>ip6tables -L 60sds-INPUT -n grep 1556</p> <p>If there is no output, then enable the port 1556 for NetBackup on IPv6 protocol:</p> <p>iptablesAdm append --type=rule --protocol=ipv6 --domain=60sds --table=filter --chain=INPUT --match='-m state --state NEW -m tcp -p tcp --dport 1556 -j ACCEPT' --persist=yes</p>

Appendix G. LIST OF FREQUENTLY USED TIME ZONES

This table lists several valid timezone strings that can be used for the time zone setting in a CSV file, or as the time zone parameter when manually setting a DSR blade timezone. For an exhaustive list of **ALL** timezones, log onto the PMAC server console and view the text file: [/usr/share/zoneinfo/zone.tab](#)

Table 6 - List of Selected Time Zone Values


Time Zone Value	Description	Universal Time Code (UTC) Offset
<i>Etc/UTC</i>	Coordinated Universal Time	UTC-00
<i>America/New_York</i>	Eastern Time	UTC-05
<i>America/Chicago</i>	Central Time	UTC-06
<i>America/Denver</i>	Mountain Time	UTC-07
<i>America/Phoenix</i>	Mountain Standard Time - Arizona	UTC-07
<i>America/Los_Angeles</i>	Pacific Time	UTC-08
<i>America/Anchorage</i>	Alaska Time	UTC-09
<i>Pacific/Honolulu</i>	Hawaii	UTC-10
<i>Africa/Johannesburg</i>		UTC+02
<i>America/Mexico_City</i>	Central Time - most locations	UTC-06
<i>Africa/Monrovia</i>		UTC+00
<i>Asia/Tokyo</i>		UTC+09


America/Jamaica		UTC-05
Europe/Rome		UTC+01
Asia/Hong_Kong		UTC+08
Pacific/Guam		UTC+10
Europe/Athens		UTC+02
Europe/London		UTC+00
Europe/Paris		UTC+01
Europe/Madrid	mainland	UTC+01
Africa/Cairo		UTC+02
Europe/Copenhagen		UTC+01
Europe/Berlin		UTC+01
Europe/Prague		UTC+01
America/Vancouver	Pacific Time - west British Columbia	UTC-08
America/Edmonton	Mountain Time - Alberta, east British Columbia & westSaskatchewan	UTC-07
America/Toronto	Eastern Time - Ontario - most locations	UTC-05
America/Montreal	Eastern Time - Quebec - most locations	UTC-05

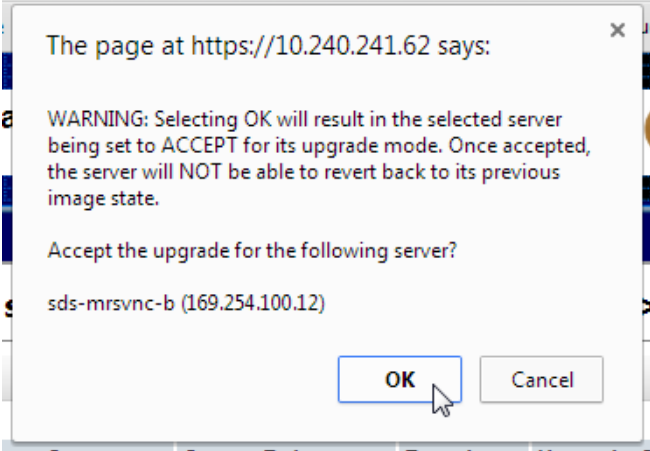
America/Sao_Paulo	South & Southeast Brazil	UTC-03
Europe/Brussels		UTC+01
Australia/Perth	Western Australia - most locations	UTC+08
Australia/Sydney	New South Wales - most locations	UTC+10
Asia/Seoul		UTC+09
Africa/Lagos		UTC+01
Europe/Warsaw		UTC+01
America/Puerto_Rico		UTC-04
Europe/Moscow	Moscow+00 - west Russia	UTC+04
Asia/Manila		UTC+08
Atlantic/Reykjavik		UTC+00
Asia/Jerusalem		UTC+02

Appendix H. ACCEPTING INSTALLATION THROUGH SDS NOAM GUI

This section will accept an application installation through SDS NOAM GUI.



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

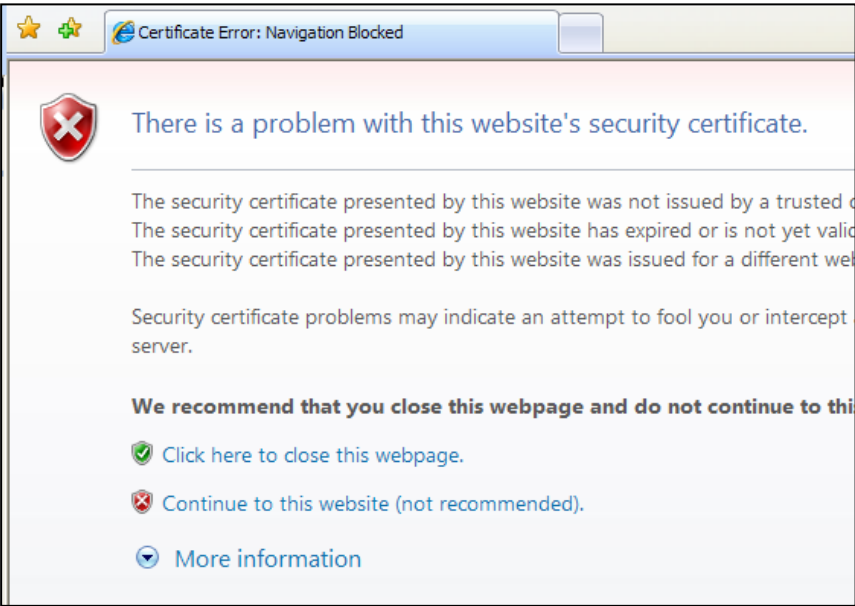

Step	Procedure	Result																																					
<p>3.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>The user should be presented the SDS Main Menu as shown on the right.</p>																																						
<p>4.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Using the cursor left-click, select the row containing the Server(s) for which you would like to “Accept” upgrade.</p> <p>NOTE: Multi-select is available by holding down the “CTRL” key while using the cursor to left-click multiple rows.</p>	<p>Main Menu: Administration -> Software Management -> Upgrade</p> <p>Filter* Tasks</p> <p>SDS_DP_01_GRP SDS_DP_02_GRP SDS_NO_GRP SDS_SO_GRP</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Upgrade State</th> <th>OAM HA Role</th> <th>Server Role</th> <th>Function</th> </tr> <tr> <td></td> <th>Server Status</th> <th>Appl HA Role</th> <th>Network Element</th> <td></td> </tr> </thead> <tbody> <tr> <td rowspan="2">QS-a</td> <td>Ready</td> <td>Observer</td> <td>Query Server</td> <td>QS</td> </tr> <tr> <td>Norm</td> <td>N/A</td> <td>SDS_NO_NE</td> <td></td> </tr> <tr> <td rowspan="2">sds-NO-a</td> <td>Ready</td> <td>Active</td> <td>Network OAM&P</td> <td>OAM&P</td> </tr> <tr> <td>Norm</td> <td>N/A</td> <td>SDS_NO_NE</td> <td></td> </tr> <tr> <td rowspan="2">sds-NO-b</td> <td>Ready</td> <td>Standby</td> <td>Network OAM&P</td> <td>OAM&P</td> </tr> <tr> <td>Norm</td> <td>N/A</td> <td>SDS_NO_NE</td> <td></td> </tr> </tbody> </table>	Hostname	Upgrade State	OAM HA Role	Server Role	Function		Server Status	Appl HA Role	Network Element		QS-a	Ready	Observer	Query Server	QS	Norm	N/A	SDS_NO_NE		sds-NO-a	Ready	Active	Network OAM&P	OAM&P	Norm	N/A	SDS_NO_NE		sds-NO-b	Ready	Standby	Network OAM&P	OAM&P	Norm	N/A	SDS_NO_NE	
Hostname	Upgrade State	OAM HA Role	Server Role	Function																																			
	Server Status	Appl HA Role	Network Element																																				
QS-a	Ready	Observer	Query Server	QS																																			
	Norm	N/A	SDS_NO_NE																																				
sds-NO-a	Ready	Active	Network OAM&P	OAM&P																																			
	Norm	N/A	SDS_NO_NE																																				
sds-NO-b	Ready	Standby	Network OAM&P	OAM&P																																			
	Norm	N/A	SDS_NO_NE																																				
<p>5.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Using the cursor left-click, select the “Accept” dialogue button.</p>	<p>Backup Backup All Checkup Checkup All Auto Upgrade Accept Report Report All</p>																																					


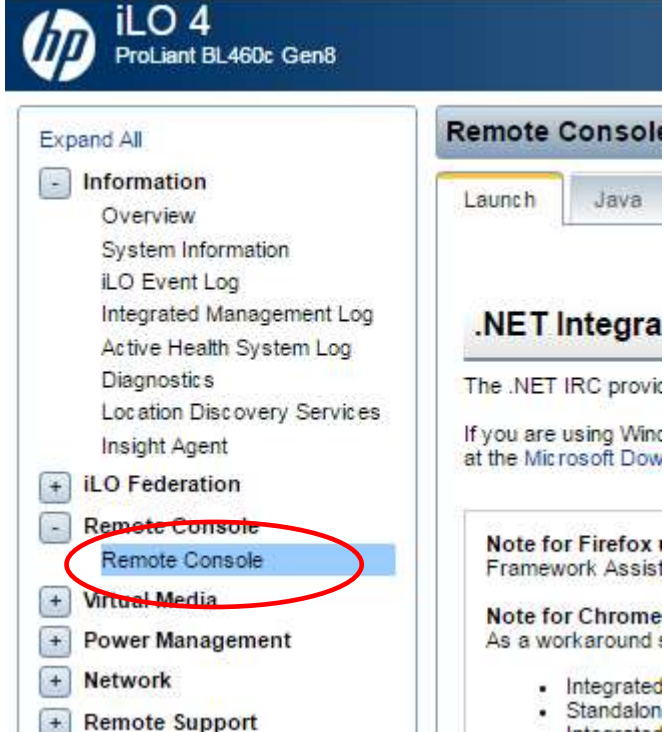
Step	Procedure	Result
<p>6.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The user is presented with a dialogue box stating that the “Accept Upgrade” action is irreversible and locks the Server on the current software release (i.e. <i>Backout to the previous release is no longer allowed</i>).</p> <p>If the user wishes to continue, use the cursor left-click to select the “OK” dialogue button.</p>	
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>		


Appendix I. DISABLE HYPERTHREADING FOR GEN8 & GEN9 (DP ONLY)


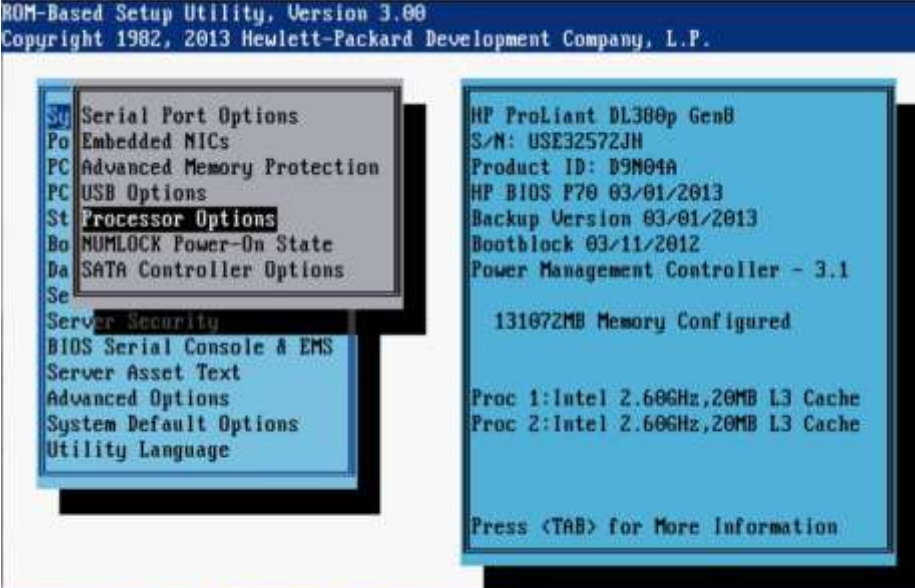
I.1 Gen8: Disable Hyperthreading For GEN8 & Gen9 (DP Only)

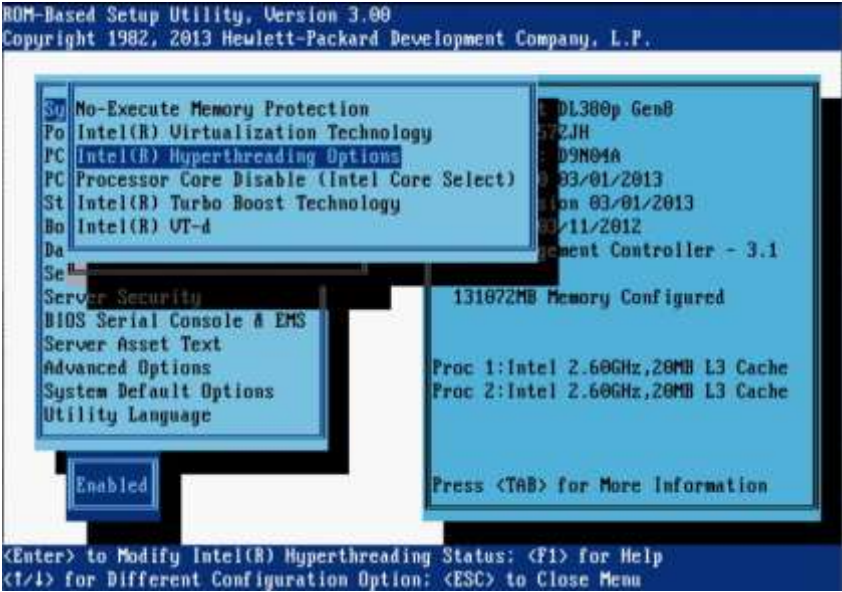
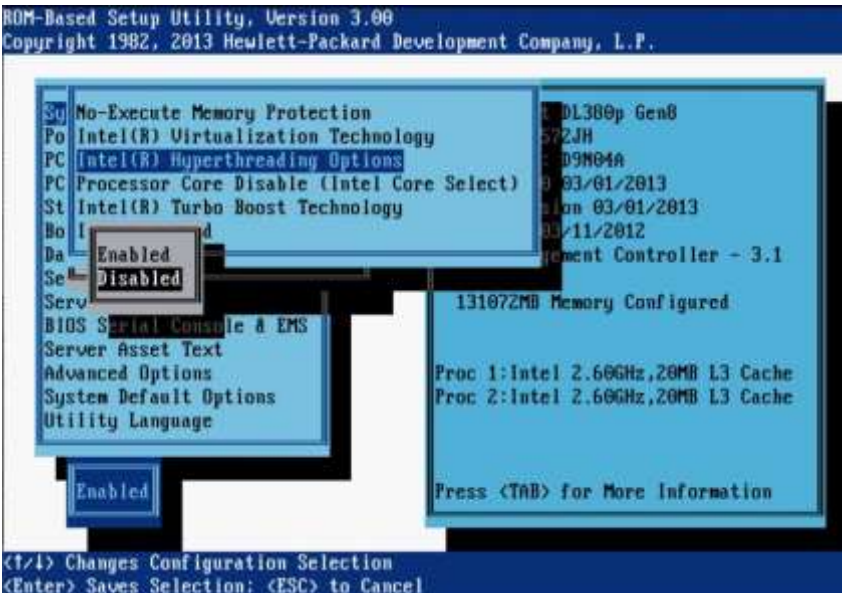
Step	Procedure	Result
<p>1.</p> <input type="checkbox"/>	<p>DP Server XMI IP (SSH):</p> <p>Access the command prompt via DP blade's XMI IP address and log into the server as the "admusr" user.</p>	<p>login: admusr Password: <admusr_password></p>
<p>2.</p> <input type="checkbox"/>	<p>DP Server XMI IP (SSH):</p> <p>Execute "hpsasmcli" command to determine status of hyperthreading for the DP blade.</p>	<p>\$ sudo hpsasmcli -s "show ht"</p> <p>Processor hyper-threading is currently enabled.</p> <p>NOTE: <i>Output returned may state "enabled" or "disabled".</i></p>
<p>3.</p> <input type="checkbox"/>	 <ul style="list-style-type: none"> If output from Step 2 shows that hyperthreading is currently "enabled", then continue with Step 4 of this procedure. If output from Step 2 shows that hyperthreading is currently "disabled", then STOP and restart Appendix I for the next installed DP blade. 	
<p>4.</p> <input type="checkbox"/>	<p>Launch the Internet Explorer web browser and connect to the DP-iLO GUI interface.</p> <p>NOTE: <i>Always use https:// for iLO GUI access.</i></p>	 <p>!!! WARNING !!!</p> <p>Verify the DP-iLO IP address before proceeding. The user must login using the DP-iLO IP address only.</p>

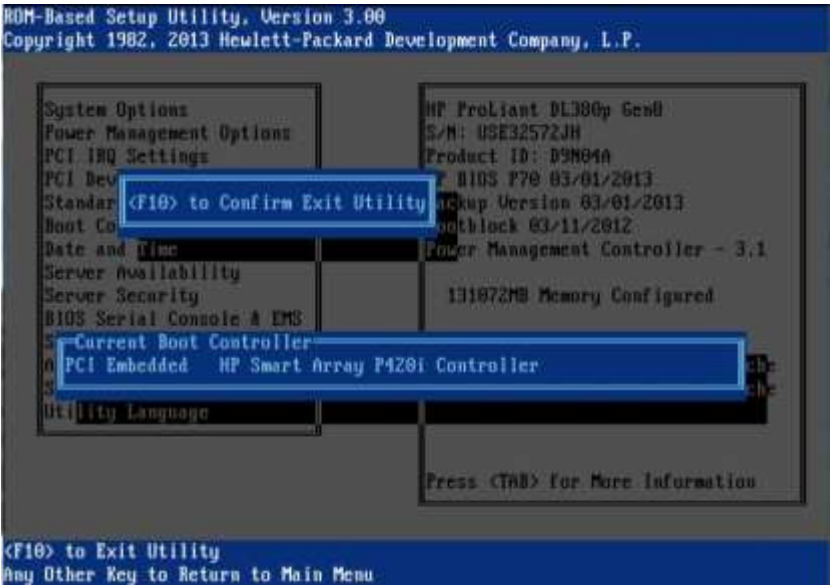
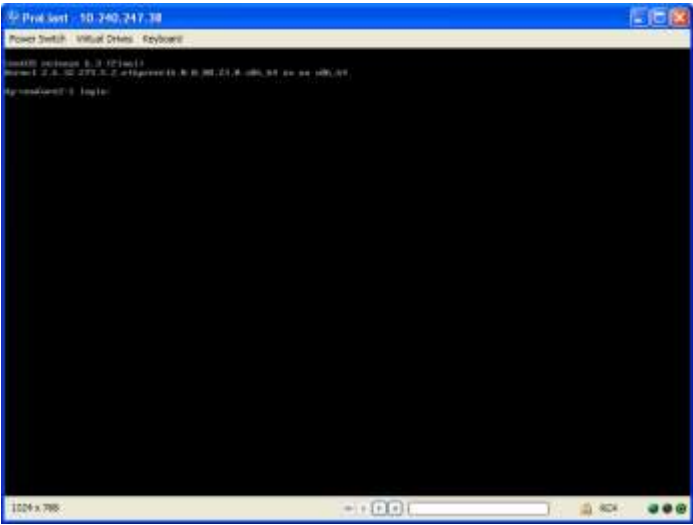
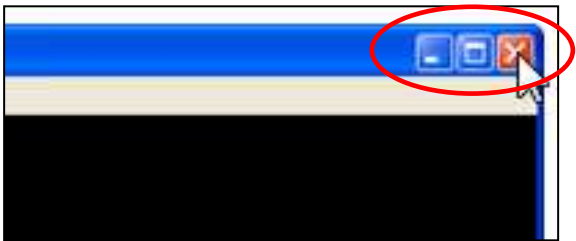
Step	Procedure	Result
<p>5.</p> <input type="checkbox"/>	<p>The web browser will display a warning message regarding the Security Certificate.</p> <p>NOTE: <i>If presented with the “security certificate” warning screen shown to the right, choose the following option: “Continue to this website (not recommended)”.</i></p>	
<p>6.</p> <input type="checkbox"/>	<p>Login to the iLO console as “Administrator” and enter the configured password.</p>	

Step	Procedure	Result
<p>7.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-bottom: 5px;"></div>	<p>The admin GUI is displayed.</p> <p>Select the “Remote Console” tab in the upper left corner of the GUI.</p>	 <p>The screenshot shows the HP iLO 4 ProLiant BL460c Gen8 interface. On the left, a navigation menu is expanded to show the 'Remote Console' option, which is highlighted in blue. The main content area is titled 'iLO Overview' and contains several sections: 'Information' with fields for Server Name (Compass-DAMP-03), Product Name (ProLiant BL460c Gen8), UUID, and various system identifiers; 'Status' with indicators for System Health (OK), Server Power (ON), and UID; and 'Active Sessions' with a table showing a local user administrator session.</p>
<p>8.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-bottom: 5px;"></div>	<p>The Remote Console Information GUI is displayed</p> <p>Click on the “Remote Console” menu option</p>	 <p>This screenshot shows the 'Remote Console' information page. The left-hand navigation menu is expanded, and the 'Remote Console' option is circled in red. The main content area features a 'Remote Console' header with 'Launch' and 'Java' buttons. Below this, there is a section for '.NET Integra' with introductory text and a 'Note for Firefox' section.</p>



Step	Procedure	Result
<p>12.</p> <input type="checkbox"/>	<p>Reboot the server.</p> <p>This can be achieved by logging in as the “ ” user and executing init 6 command at the command prompt.</p>	<p>\$ sudo init 6</p> <p>NOTE: <i>It is normal for the Remote Console window to stay blank for up to 3 minutes before initial output appears.</i></p>
<p>13.</p> <input type="checkbox"/>	<p>Access the Server BIOS by pressing F9 key</p>	<p>Reboot the server. This can be achieved by pressing and holding the power button until the server turns off, then after approximately 5-10 seconds press the power button to enable power.</p> <p>As soon as you see F9=Setup in the lower left corner of the screen, press [F9] to access the BIOS setup screen. You may be required to press [F9] 2-3 times. The F9=Setup will change to F9 Pressed once it is accepted. See example below.</p>  <p>Expected Result: <i>ROM-Based Setup Utility is accessed and the ROM-Based Setup Utility menu will be displayed.</i></p> <p>NOTE: <i>It is normal for a period of 2 minutes or more to occur between pressing the F9 key and entering the Blade BIOS screen</i></p>

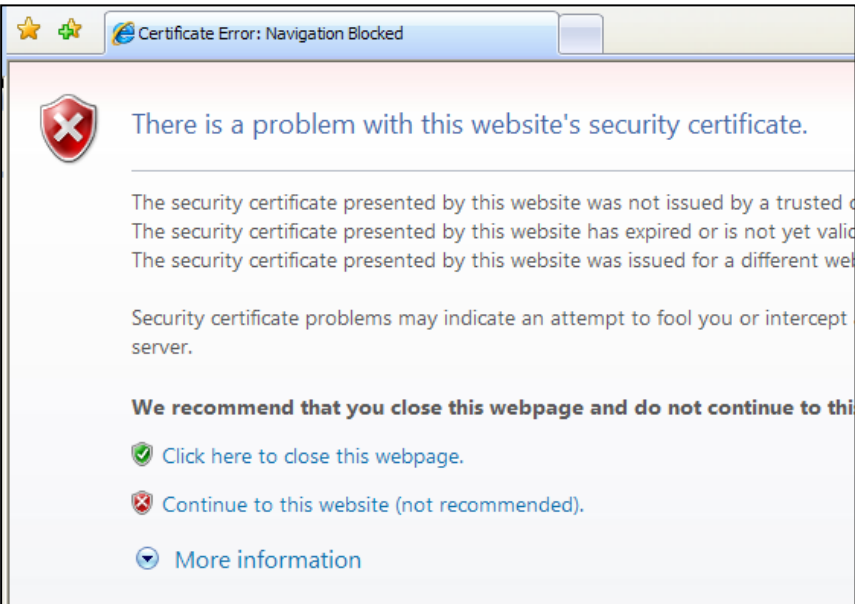

Step	Procedure	Result
<p>14.</p> <p><input type="checkbox"/></p>	<p>Select System Options</p>	<p>Scroll to System Options and press [ENTER]</p>  <p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p> <p>System Options Power Management Options PCI IRQ Settings PCI Device Enable/Disable Standard Boot Order (IPL) Boot Controller Order Date and Time Server Availability Server Security BIOS Serial Console & EMS Server Asset Text Advanced Options System Default Options Utility Language</p> <p>HP ProLiant DL380p Gen8 S/N: USE32572JH Product ID: D9M04A HP BIOS P70 03/01/2013 Backup Version 03/01/2013 Bootblock 03/11/2012 Power Management Controller - 3.1 131072MB Memory Configured Proc 1: Intel 2.60GHz, 20MB L3 Cache Proc 2: Intel 2.60GHz, 20MB L3 Cache Press <TAB> for More Information</p> <p><Enter> to View/Modify System Specific Options <F1> for Different Selection: <TAB> for More Info: <ESC> to Exit Utility</p>
<p>15.</p> <p><input type="checkbox"/></p>	<p>Select Processor Options</p>	<p>Select Processor Options option and press [ENTER]</p>  <p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p> <p>Serial Port Options Embedded NICs Advanced Memory Protection USB Options Processor Options NUMLOCK Power-On State SATA Controller Options Server Security BIOS Serial Console & EMS Server Asset Text Advanced Options System Default Options Utility Language</p> <p>HP ProLiant DL380p Gen8 S/N: USE32572JH Product ID: D9M04A HP BIOS P70 03/01/2013 Backup Version 03/01/2013 Bootblock 03/11/2012 Power Management Controller - 3.1 131072MB Memory Configured Proc 1: Intel 2.60GHz, 20MB L3 Cache Proc 2: Intel 2.60GHz, 20MB L3 Cache Press <TAB> for More Information</p> <p><Enter> to Display Processor Specific Options <F1> for Different Configuration Option: <ESC> to Close Menu</p>

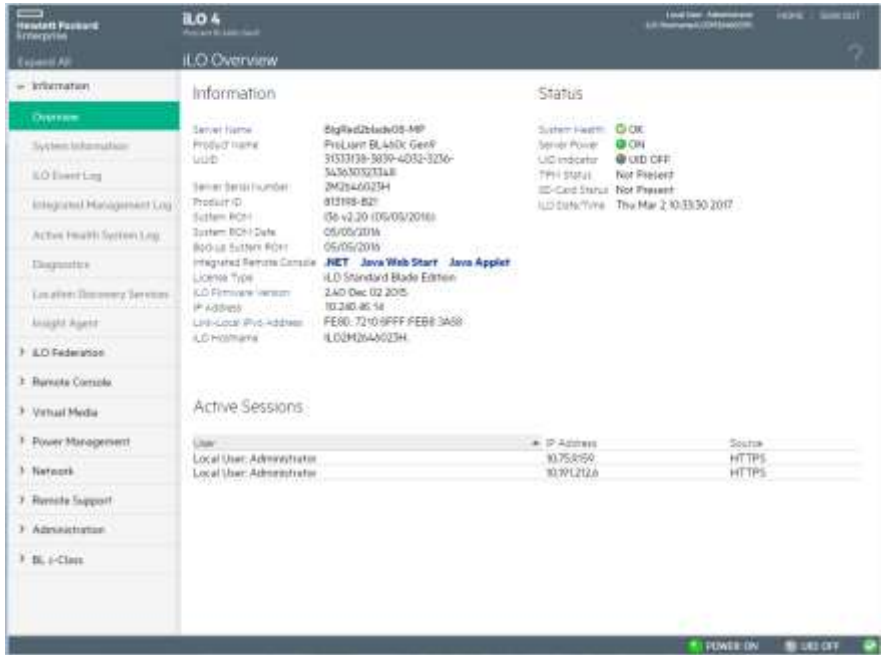
Step	Procedure	Result
<p>16.</p> <p><input type="checkbox"/></p>	<p>Select Hyper threading Options</p>	<p>Select <i>Intel® Hyper threading Options</i> and press [ENTER].</p>  <p>The screenshot shows the 'ROM-Based Setup Utility, Version 3.00' interface. The 'Intel(R) Hyperthreading Options' menu is open, and the 'Enabled' option is highlighted. The background menu shows 'No-Execute Memory Protection', 'Intel(R) Virtualization Technology', 'Processor Core Disable (Intel Core Select)', 'Intel(R) Turbo Boost Technology', and 'Intel(R) VT-d'. System information on the right includes 'DL380p Gen8', '572JH', 'D9N04A', '03/01/2013', '03/01/2013', '03/11/2012', and 'Management Controller - 3.1'. At the bottom, it says '<Enter> to Modify Intel(R) Hyperthreading Status: <F1> for Help <1/4> for Different Configuration Option: <ESC> to Close Menu'.</p>
<p>17.</p> <p><input type="checkbox"/></p>	<p>Set hyperthreading to Disabled.</p>	<p>Select Disabled option and press [ENTER].</p>  <p>The screenshot shows the same 'ROM-Based Setup Utility' interface. In the 'Intel(R) Hyperthreading Options' menu, the 'Disabled' option is now highlighted. The background menu and system information are the same as in the previous screenshot. At the bottom, it says '<1/4> Changes Configuration Selection <Enter> Saves Selection: <ESC> to Cancel'.</p>

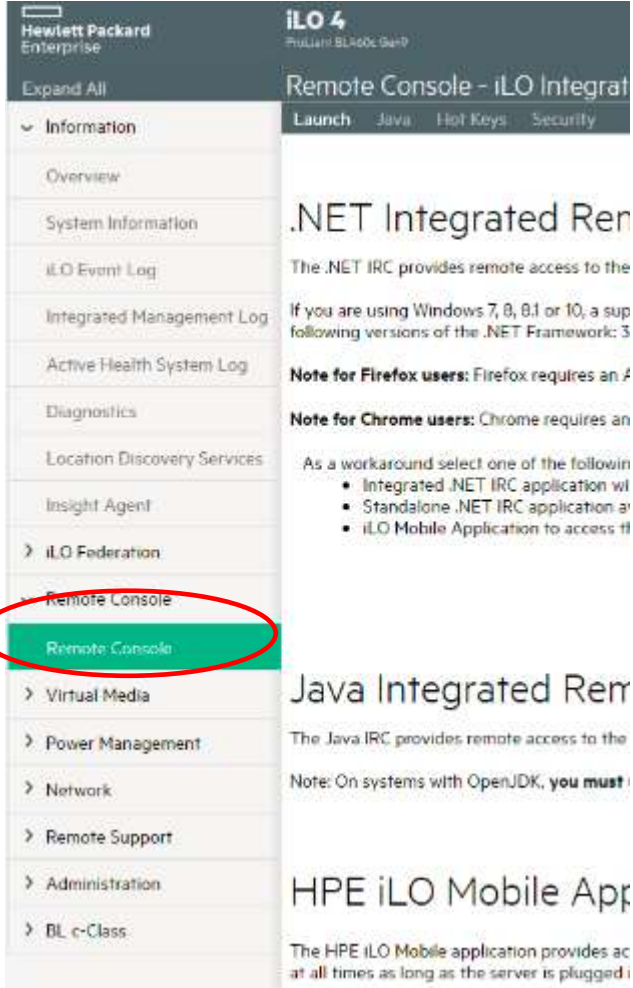
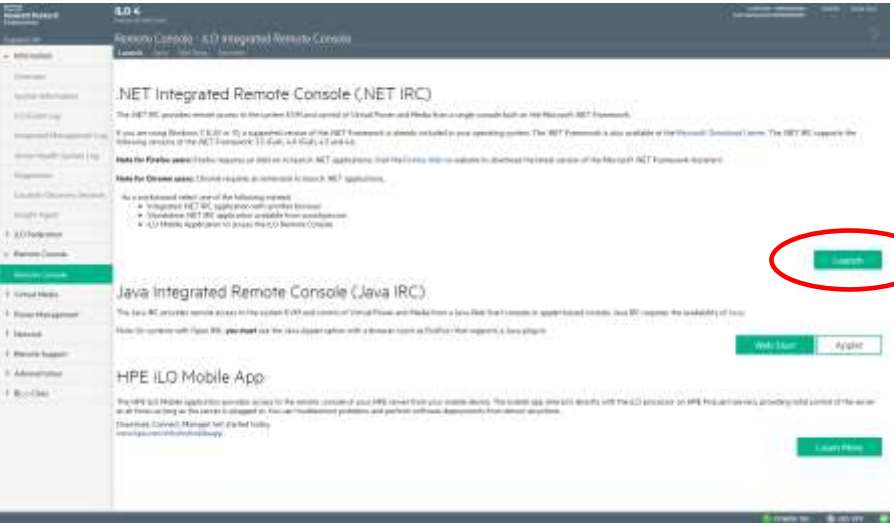
Step	Procedure	Result
<p>18.</p> <p><input type="checkbox"/></p>	<p>Save Configuration and Exit.</p> <p>NOTE: <i>It is normal for the Remote Console window to stay blank for up to 3 minutes before initial output appears.</i></p>	<p>Press [F10] to save the configuration and exit. The server will reboot</p>  <p>Expected Result: <i>Settings are saved and server reboots.</i></p>
<p>19.</p> <p><input type="checkbox"/></p>	<p>Continue to monitor the server boot process until the screen returns to the login prompt.</p>	
<p>20.</p> <p><input type="checkbox"/></p>	<p>Close the Remote Console window.</p>	
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>		

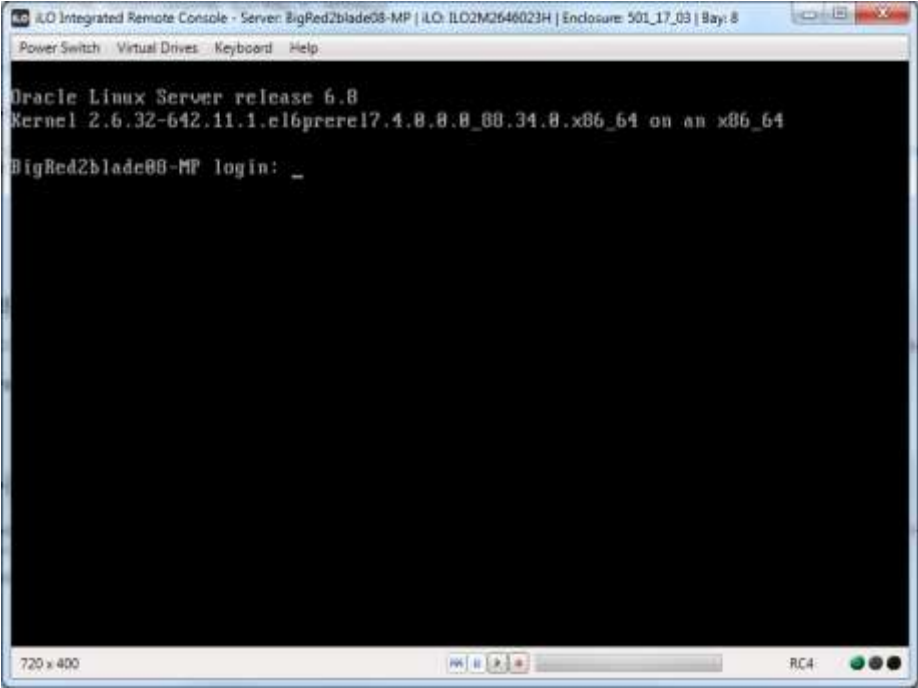
1.2 Gen9: Disable Hyperthreading For GEN8 & Gen9 (DP Only)

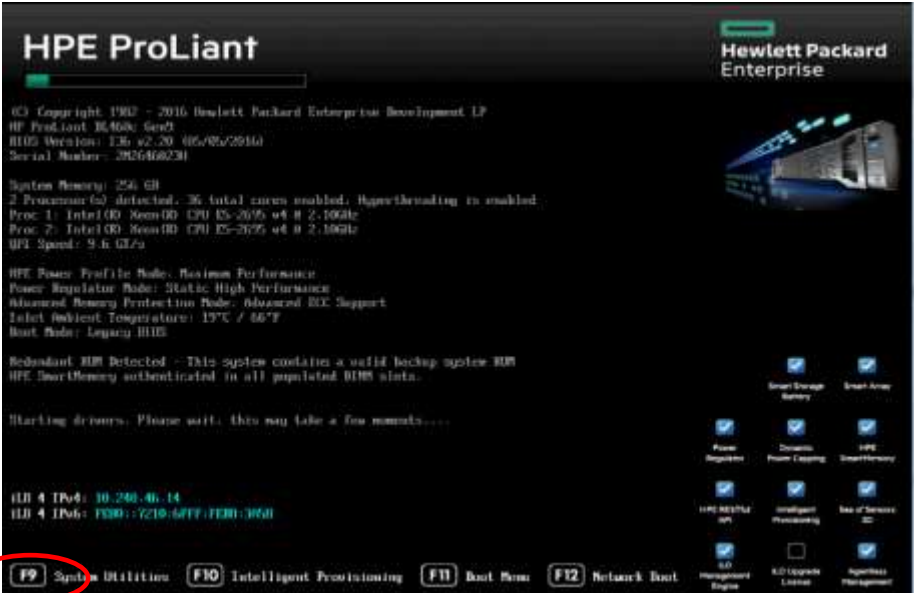
Step	Procedure	Result
<p>1.</p> <input type="checkbox"/>	<p>DP Server XMI IP (SSH):</p> <p>Access the command prompt via DP blade's XMI IP address and log into the server as the "admusr" user.</p>	<p>login: admusr Password: <admusr_password></p>
<p>2.</p> <input type="checkbox"/>	<p>DP Server XMI IP (SSH):</p> <p>Execute "hpsasmcli" command to determine status of hyperthreading for the DP blade.</p>	<p>\$ sudo hpsasmcli -s "show ht"</p> <p>Processor hyper-threading is currently enabled.</p> <p>NOTE: Output returned may state "enabled" or "disabled".</p>
<p>3.</p> <input type="checkbox"/>		<ul style="list-style-type: none"> • If output from Step 2 shows that hyperthreading is currently "enabled", then continue with Step 4 of this procedure. • If output from Step 2 shows that hyperthreading is currently "disabled", then STOP and restart Appendix I for the next installed DP blade.
<p>4.</p> <input type="checkbox"/>	<p>Launch the Internet Explorer web browser and connect to the DP-iLO GUI interface.</p> <p>NOTE: Always use <i>https://</i> for iLO GUI access.</p>	 <p>!!! WARNING!!!</p> <p><i>Verify the DP-iLO IP address before proceeding. The user must login using the DP-iLO IP address only.</i></p>


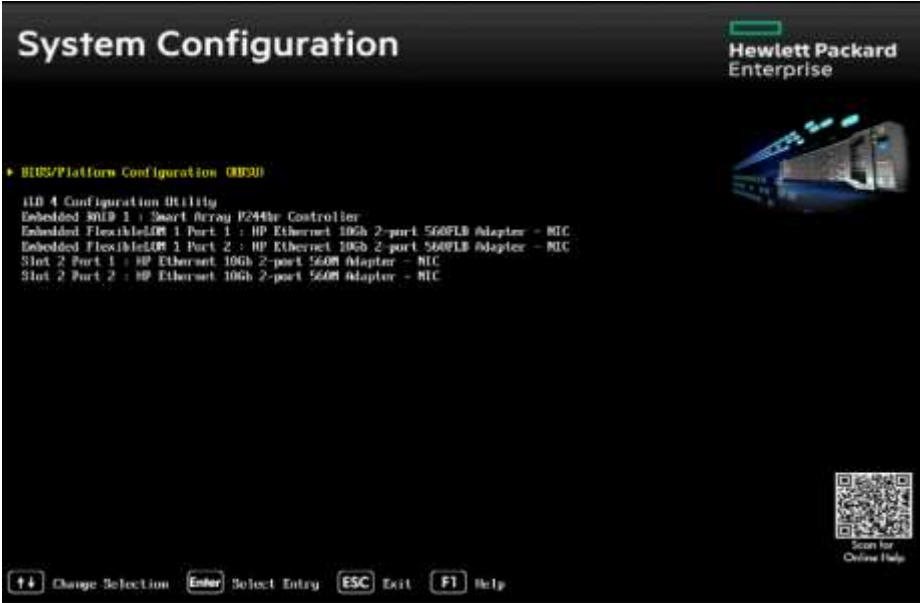
Step	Procedure	Result
<p>5.</p> <input type="checkbox"/>	<p>The web browser will display a warning message regarding the Security Certificate.</p> <p>NOTE: <i>If presented with the “security certificate” warning screen shown to the right, choose the following option: “Continue to this website (not recommended)”.</i></p>	
<p>6.</p> <input type="checkbox"/>	<p>Login to the iLO console as “Administrator” and enter the configured password.</p>	



Step	Procedure	Result									
<p>7.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 10px;"></div>	<p>The admin GUI is displayed.</p> <p>Select the “Remote Console” tab in the upper left corner of the GUI.</p>	 <p>The screenshot shows the iLO 4 Overview page. The left sidebar contains a navigation menu with the following items: Overview (selected), System Information, iLO Event Log, Integrated Management Log, Active Health System Log, Diagnostic, Localized Recovery Services, Insight Agent, iLO Federation, Remote Console, Virtual Media, Power Management, Network, Remote Support, Administration, and BL i-Class. The main content area is divided into three sections: Information, Status, and Active Sessions. The Information section lists details such as Server Name, Product Name, iLO ID, System ROM, and iLO Firmware Version. The Status section shows System Health as OK, Server Power as ON, and iLO Indicator as LED OFF. The Active Sessions table lists two active sessions for the Local User Administrator.</p> <table border="1"> <caption>Active Sessions</caption> <thead> <tr> <th>User</th> <th>IP Address</th> <th>Source</th> </tr> </thead> <tbody> <tr> <td>Local User Administrator</td> <td>10.75.8.50</td> <td>HTTPS</td> </tr> <tr> <td>Local User Administrator</td> <td>10.10.12.0</td> <td>HTTPS</td> </tr> </tbody> </table>	User	IP Address	Source	Local User Administrator	10.75.8.50	HTTPS	Local User Administrator	10.10.12.0	HTTPS
User	IP Address	Source									
Local User Administrator	10.75.8.50	HTTPS									
Local User Administrator	10.10.12.0	HTTPS									


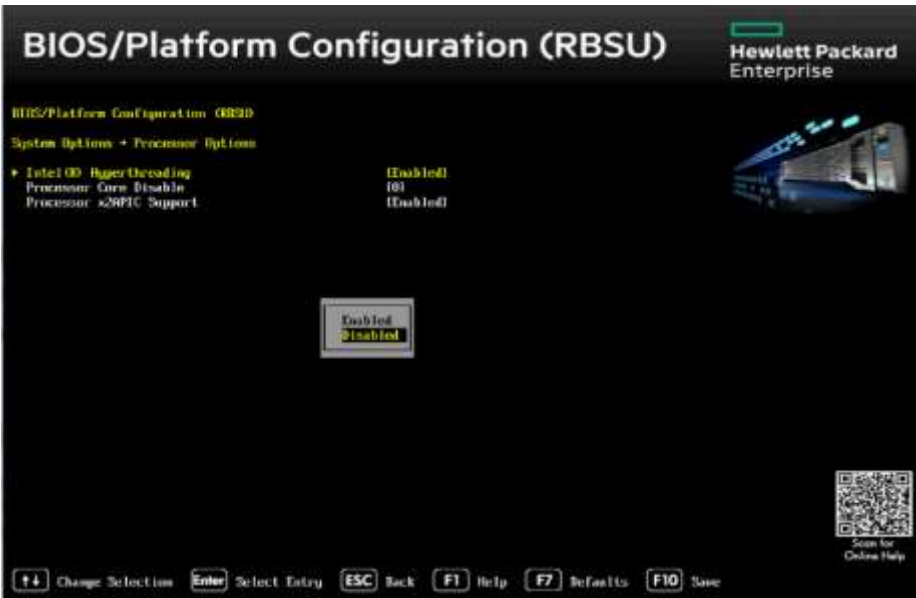
Step	Procedure	Result
<p>8.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>The Remote Console Information GUI is displayed</p> <p>Click on the “Remote Console” menu option</p>	
<p>9.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>Under the “Integrated Remote Console” section in the top of the right panel, click on the “Launch” dialogue button.</p> <p>NOTE: Answer “Yes/OK” to any pop-up windows that might appear.</p>	

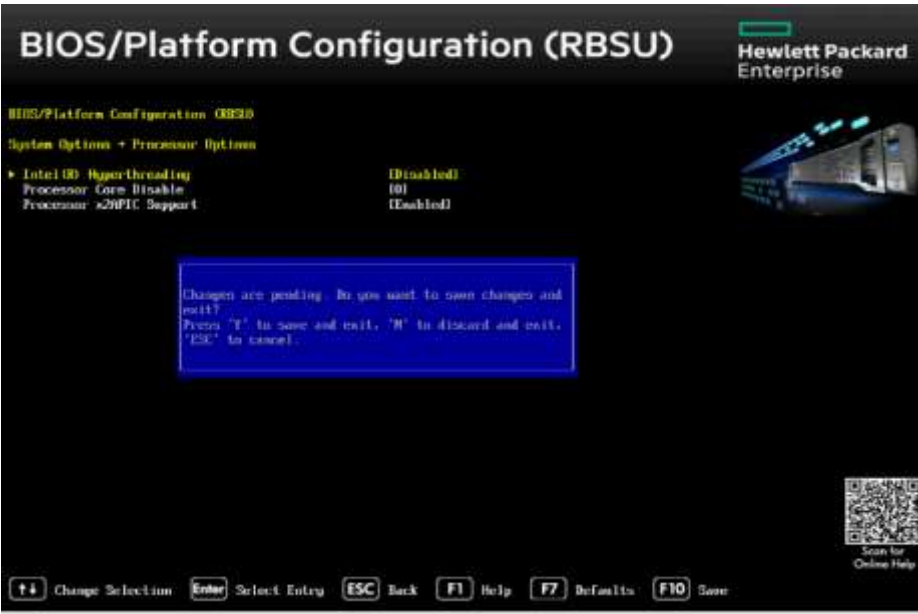
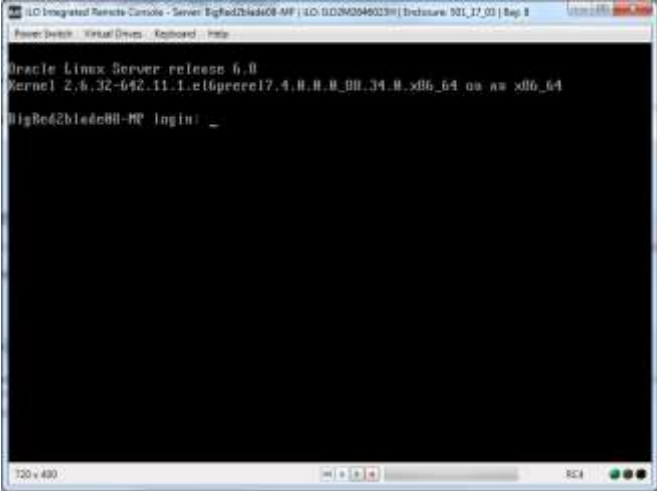
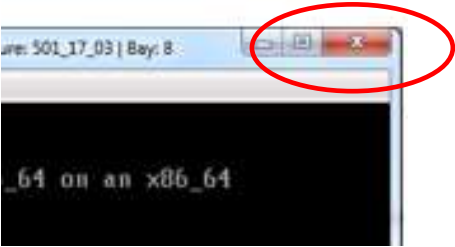
Step	Procedure	Result
<p>10.</p> <input type="checkbox"/>	<p>The iLO Console window is displayed.</p> <p>NOTE: <i>The console window resembles an MS-DOS window but DOES NOT have a scroll-back buffer.</i></p>	
<p>11.</p>	<p>DP Server XMI IP (SSH):</p> <p>Access the command prompt via DP blade's XMI IP address and log into the server as the "admusr" user.</p>	<p>login: admusr</p> <p>Password: <admusr_password></p>
<p>12.</p> <input type="checkbox"/>	<p>Reboot the server.</p> <p>This can be achieved by logging in as the " " user and executing init 6 command at the command prompt.</p>	<p>\$ sudo init 6</p> <p>NOTE: <i>It is normal for the Remote Console window to stay blank for up to 3 minutes before initial output appears.</i></p>

Step	Procedure	Result
<p>13.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>Access the Server BIOS by pressing F9 key</p>	<p>Reboot the server. This can be achieved by pressing and holding the power button until the server turns off, then after approximately 5-10 seconds press the power button to enable power.</p> <p>As soon as you see F9=Setup in the lower left corner of the screen, press [F9] to access the BIOS setup screen. You may be required to press [F9] 2-3 times. The F9=Setup will change to F9 Pressed once it is accepted. See example below.</p>  <p>Expected Result: ROM-Based Setup Utility is accessed and the ROM-Based Setup Utility menu will be displayed.</p> <p>NOTE: It is normal for a period of 2 minutes or more to occur between pressing the F9 key and entering the Blade BIOS screen</p>

Step	Procedure	Result
14.	Scroll to System Configuration	<p>Scroll to System Configuration and press [ENTER]</p> 
15.	Scroll to BIOS/Platform Configuration	<p>Scroll to BIOS/Platform Configuration and press [ENTER]</p> 

Step	Procedure	Result
<p>16.</p> <p><input type="checkbox"/></p>	<p>Select System Configuration</p>	<p>Scroll to System Configuration and press [ENTER]</p> 
<p>17.</p> <p><input type="checkbox"/></p>	<p>Select Processor Options</p>	<p>Select Processor Options option and press [ENTER]</p> 

Step	Procedure	Result
<p>18.</p> <input type="checkbox"/>	<p>Select Hyper threading Options</p>	<p>Select <i>Intel® Hyper threading Options</i> and press [ENTER].</p>  <p>The screenshot shows the BIOS/Platform Configuration (RBSU) interface. The title bar reads 'BIOS/Platform Configuration (RBSU)' and 'Hewlett Packard Enterprise'. The main menu is titled 'BIOS/Platform Configuration (RBSU)' and 'System Options + Processor Options'. Under the 'Intel® Hyper threading' section, the following options are listed: 'Processor Core Disable' (Enabled), 'Processor s2MPIC Support' (Enabled), and 'Processor Core Disable' (Enabled). A QR code is visible in the bottom right corner with the text 'Scan for Online Help'. At the bottom, there are navigation keys: [↑↓] Change Selection, [Enter] Select Entry, [ESC] Back, [F1] Help, [F7] Defaults, and [F10] Save.</p>
<p>19.</p> <input type="checkbox"/>	<p>Set hyperthreading to Disabled.</p>	<p>Select Disabled option and press [ENTER].</p>  <p>The screenshot shows the same BIOS/Platform Configuration (RBSU) interface as in step 18. The 'Intel® Hyper threading' section is expanded, and the 'Disabled' option is highlighted with a yellow background. The 'Enabled' option is now greyed out. The QR code and navigation keys remain the same as in the previous screenshot.</p>

Step	Procedure	Result
<p>20.</p> <p><input type="checkbox"/></p>	<p>Save Configuration and Exit.</p> <p>NOTE: <i>It is normal for the Remote Console window to stay blank for up to 3 minutes before initial output appears.</i></p>	<p>Press [F10] to save the configuration and exit. The server will reboot</p>  <p>Expected Result: <i>Settings are saved and server reboots.</i></p>
<p>21.</p> <p><input type="checkbox"/></p>	<p>Continue to monitor the server boot process until the screen returns to the login prompt.</p>	
<p>22.</p> <p><input type="checkbox"/></p>	<p>Close the Remote Console window.</p>	

Appendix J. CONFIGURE THE HP DL380 (GEN8 & GEN9) SERVER CMOS CLOCK/BIOS SETTINGS

J.1 GEN8: CONFIGURE THE ILO FOR RACK MOUNT SERVER


J.1.1 RMS: Configure ILO

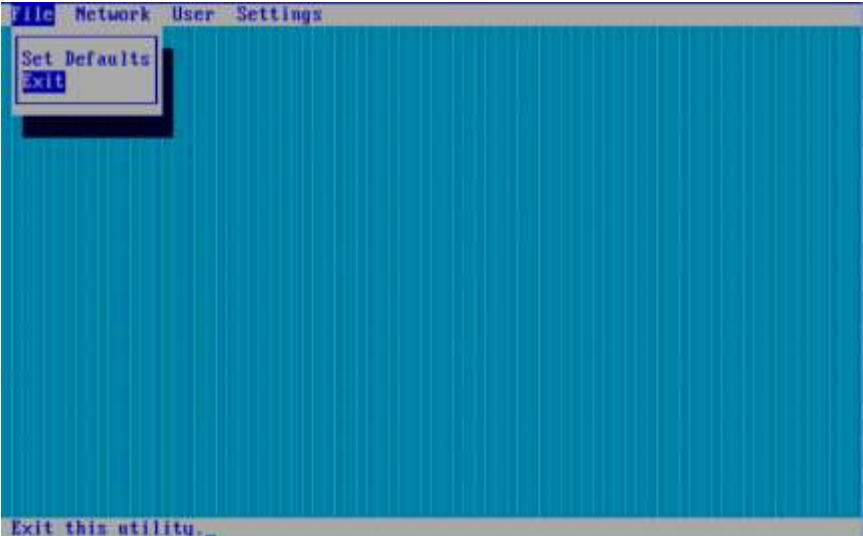
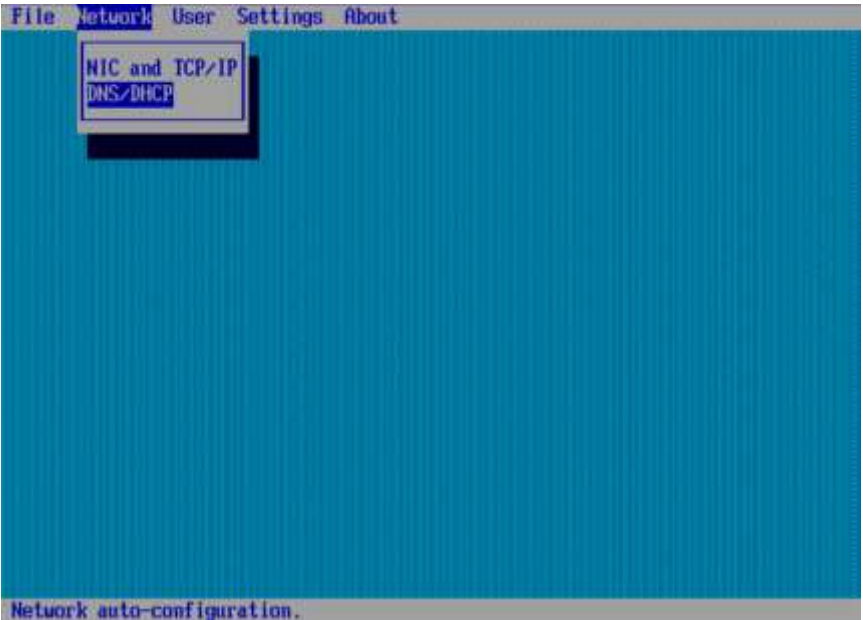
Procedure 12: GEN8: CONFIGURE THE ILO FOR RACK MOUNT SERVER

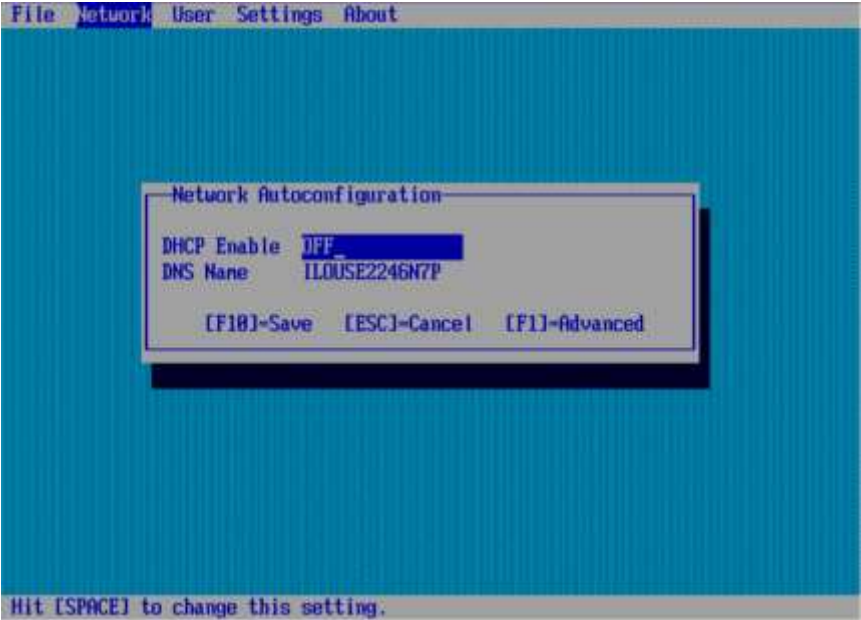
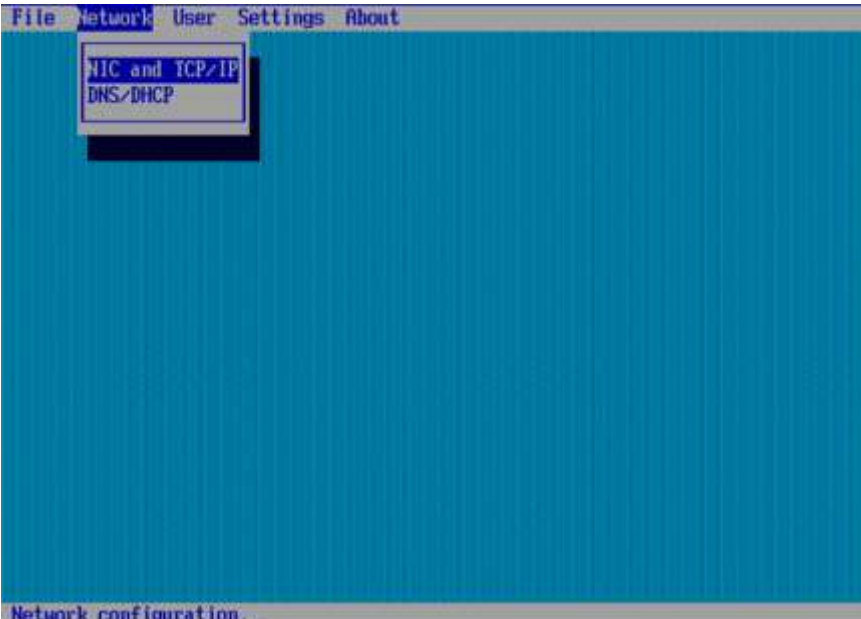
In this procedure you will be configuring Integrated Lights Out (iLO) for RMS. You will configure the NIC and TCP/IP, DNS/DHCP parameters as well as adding a new iLO user.

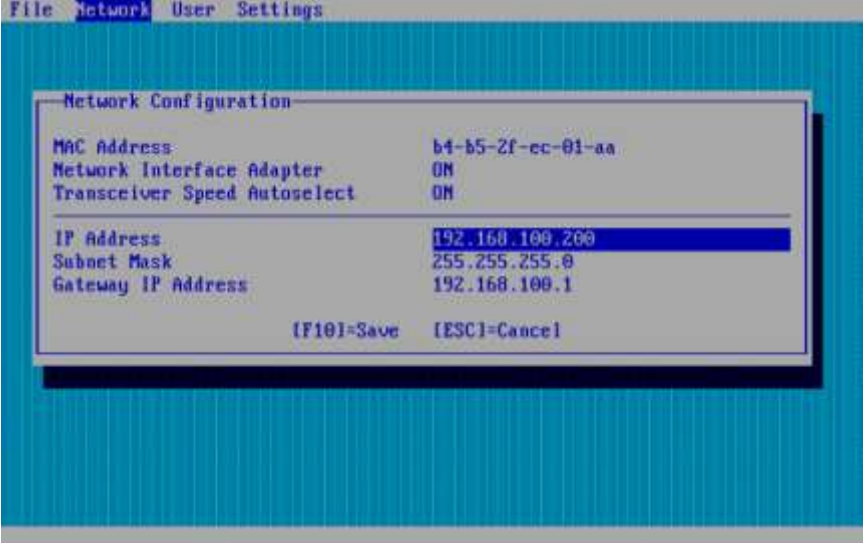
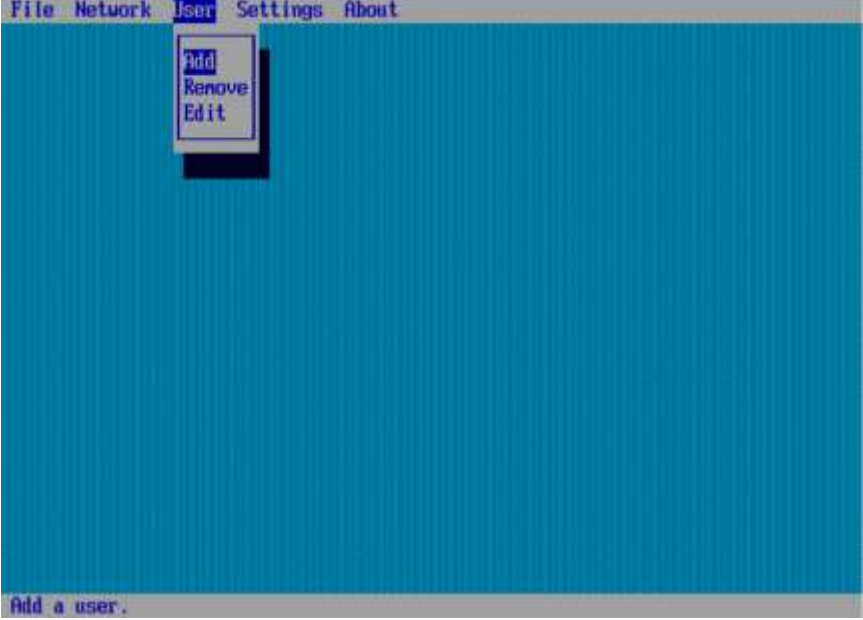
Prerequisites & Requirements:

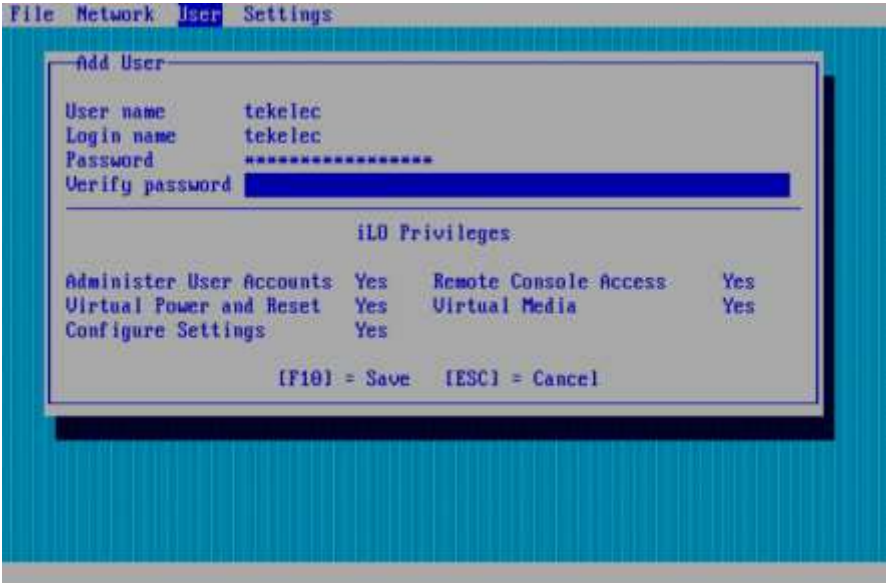
- ✓ Server powered on
- ✓ Server booting up or rebooted

Step	Procedure	Result
<p>1.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 10px;"></div>	<p>Configure Integrated Lights Out (iLO) for Rack Mount Servers (RMS):</p> <p>For HP GEN8 DL380 servers perform the following</p> <ol style="list-style-type: none"> 1. Reboot the server. 2. When “iLO 4 Standard press [F8] to configure” is displayed, press [F8] 3. Once [F8] is pressed wait for the iLO Configuration screen to appear. 	 <p>Figure 17. iLO Configuration - GEN8: Press [F8] to configure</p>

Step	Procedure	Result
2.	<p>After the initial iLO configuration utility screen appears, use the arrow keys to select the Network menu</p>	 <p>Figure 18. iLO Configuration - Initial iLO Configuration Screen</p>
3.	<p>Within the Network menu, select DNS/DHCP</p>	 <p>Figure 19. iLO Configuration - select Network->DNS/DHCP</p>

Step	Procedure	Result
4.	Verify that DNS/DHCP is set to OFF. If it is not set to OFF, use the [SPACE BAR] to toggle the setting to 'OFF'	 <p>The screenshot shows the iLO Network configuration interface. At the top, there is a menu bar with 'File', 'Network', 'User', 'Settings', and 'About'. The main area is a blue background with a white box titled 'Network Autoconfiguration'. Inside this box, 'DHCP Enable' is set to 'OFF' (highlighted with a blue bar), and 'DNS Name' is 'ILOUSE2246N7P'. Below the box, it says '[F10]-Save [ESC]-Cancel [F1]-Advanced'. At the bottom of the screen, a prompt reads 'Hit [SPACE] to change this setting.'</p> <p>Figure 20. iLO Configuration - press [SPACE BAR] to turn DHCP OFF</p>
5.	Press [F10] to save if changes were made or [ESC] to Cancel if no changes were made. You should be returned to the Network main menu.	 <p>The screenshot shows the iLO Network configuration interface. At the top, there is a menu bar with 'File', 'Network', 'User', 'Settings', and 'About'. A sub-menu is open, showing 'NIC and TCP/IP' (highlighted with a blue bar) and 'DNS/DHCP'. At the bottom of the screen, a prompt reads 'Network configuration...'</p> <p>Figure 21. iLO Configuration - Select NIC and TCP/IP</p>

Step	Procedure	Result
6.	<p>Press [ENTER] if required and select 'NIC and TCP/IP'</p>	 <p>The screenshot shows the iLO configuration interface with the 'Network Configuration' window open. The window lists the following settings: MAC Address (b4-b5-2f-ec-01-aa), Network Interface Adapter (ON), Transceiver Speed Autoselect (ON), IP Address (192.168.100.200), Subnet Mask (255.255.255.0), and Gateway IP Address (192.168.100.1). The IP Address field is highlighted. At the bottom, it shows [F10]=Save and [ESC]=Cancel.</p> <p>Figure 22. iLO Configuration - Select NIC and TCP/IP and configure Network</p>
7.	<p>Enter the Network Configuration information for the server. Use the arrow keys to select the field to change</p>	<p>IP Address should be set based on the information in the NAPD.</p>
8.	<p>Once the Network Configuration information has been entered, press [F10] to save the settings.</p> <p>Using the arrow keys, select the User menu, then select Add and press [ENTER]</p>	 <p>The screenshot shows the iLO configuration interface with the 'User' menu open. The menu options are 'Add', 'Remove', and 'Edit'. The 'Add' option is highlighted. At the bottom, it says 'Add a user.'</p> <p>Figure 23. iLO Configuration - Select User - Add</p>


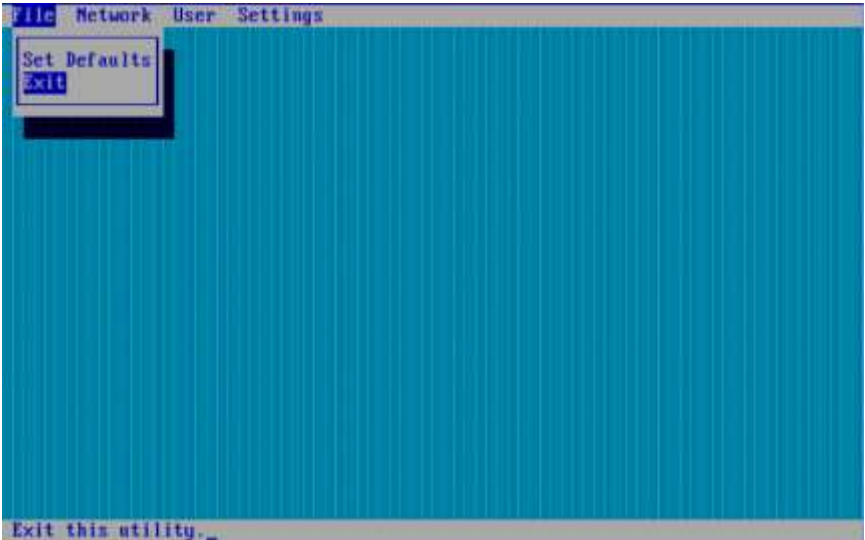
Step	Procedure	Result
9.	Add the tekelec user. Username: tekelec Login name: tekelec Password: tekelec1	
10.	Once the tekelec User has been added, press [F10] to Save the user.	
11. <input type="checkbox"/>	Repeat this procedure for other ship loose servers for the work order.	

J.1.2 GEN8: RMS BIOS Configuration, verify processor & memory.

Procedure 13. Enter the ROM-Based Setup Utility (RBSU)

Prerequisites & Requirements:

- ✓ Server powered on
- ✓ KVM connectivity to the server to get console

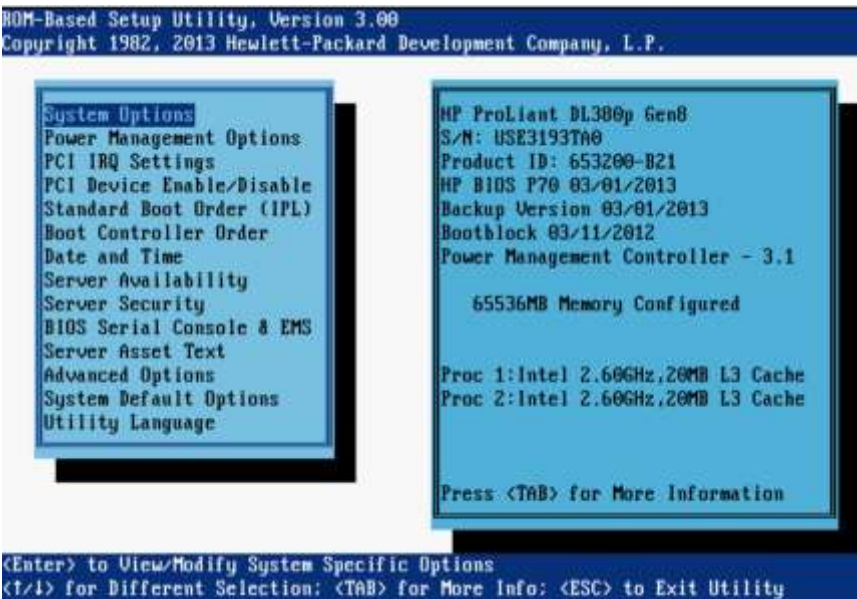
Step	Procedure	Result
<p>1.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 10px;"></div>	<p>Reboot the server. You will see an HP ProLiant screen as shown below. When prompted with the option to Press F9 for setup, do so. Once F9 is pressed, you should see “F9” selected on the screen as shown below:</p>	 <p>Figure 24. RBSU - Enter RBSU - “F9 Pressed” indicated in HP Splash screen</p>
<p>2.</p>	<p>After the initial iLO configuration utility screen appears, use the arrow keys to select the Network menu</p>	 <p>Figure 25. iLO Configuration - Initial iLO Configuration Screen</p>

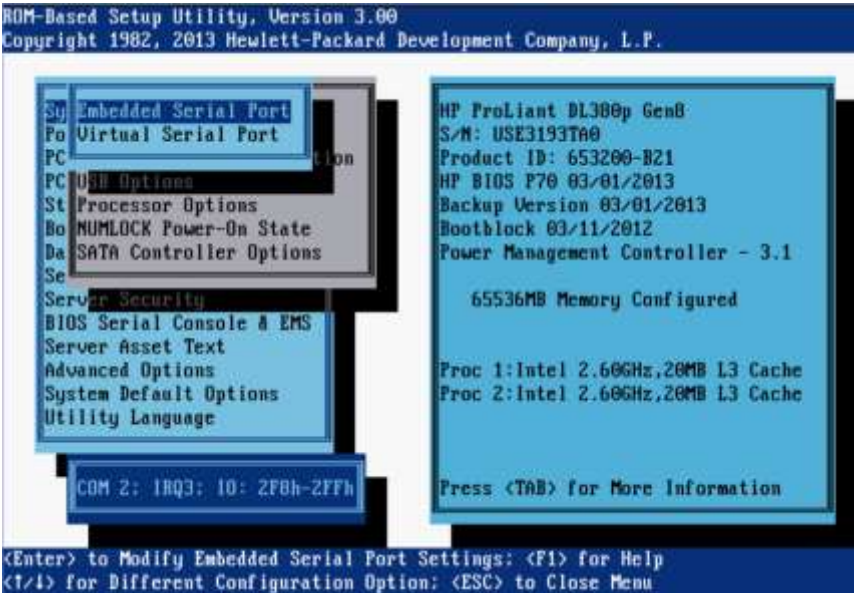
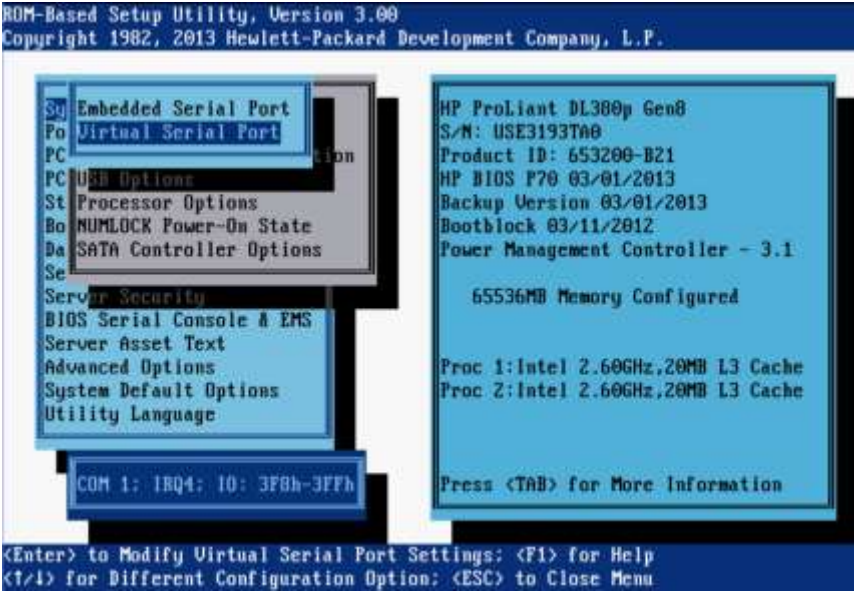
Procedure 14. Verify / Configure Serial Port Options

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU mode

In this procedure you will be verifying and/or configuring the Serial Port Options for the Embedded and Virtual Serial Ports.

Step	Procedure	Result
<p>1.</p> <p><input type="checkbox"/></p>	<p>Select System Options, then Serial Port Options:</p>	 <p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p> <p>System Options Power Management Options PCI IRQ Settings PCI Device Enable/Disable Standard Boot Order (IPL) Boot Controller Order Date and Time Server Availability Server Security BIOS Serial Console & EMS Server Asset Text Advanced Options System Default Options Utility Language</p> <p>HP ProLiant DL380p Gen8 S/N: USE3193TA0 Product ID: 653200-B21 HP BIOS P70 03/01/2013 Backup Version 03/01/2013 Bootblock 03/11/2012 Power Management Controller - 3.1 65536MB Memory Configured Proc 1: Intel 2.60GHz, 20MB L3 Cache Proc 2: Intel 2.60GHz, 20MB L3 Cache Press <TAB> for More Information</p> <p><Enter> to View/Modify System Specific Options <↑/↓> for Different Selection: <TAB> for More Info: <ESC> to Exit Utility</p> <p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p> <p>Serial Port Options Po Embedded NICs PC Advanced Memory Protection PC USB Options St Processor Options Bo NUMLOCK Power-On State Da SATA Controller Options Se Server Security BIOS Serial Console & EMS Server Asset Text Advanced Options System Default Options Utility Language</p> <p>HP ProLiant DL380p Gen8 S/N: USE3193TA0 Product ID: 653200-B21 HP BIOS P70 03/01/2013 Backup Version 03/01/2013 Bootblock 03/11/2012 Power Management Controller - 3.1 65536MB Memory Configured Proc 1: Intel 2.60GHz, 20MB L3 Cache Proc 2: Intel 2.60GHz, 20MB L3 Cache Press <TAB> for More Information</p> <p><Enter> to Display Serial Port Options <↑/↓> for Different Configuration Option: <ESC> to Close Menu</p>
		<p>Figure 26. ROM-Based Setup Utility - initial screen</p> <p>Figure 27. ROM-Based Setup Utility - Serial Port Options</p>

Step	Procedure	Result
2.	<p>Verify the settings for Embedded Serial Port:</p>	<p>Select “Embedded Serial Port” and verify it is set for “COM 2”. If it is not set to COM 2, press [ENTER], select COM 2, then [ENTER].</p>  <p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p> <p>Embedded Serial Port Virtual Serial Port USB Options Processor Options NUMLOCK Power-On State SATA Controller Options</p> <p>COM 2: 1BQ3: 10: 2FBh-2FFh</p> <p>HP ProLiant DL380p Gen8 S/N: USE3193TA0 Product ID: 653200-B21 HP BIOS P70 03/01/2013 Backup Version 03/01/2013 Bootblock 03/11/2012 Power Management Controller - 3.1 65536MB Memory Configured Proc 1: Intel 2.60GHz, 20MB L3 Cache Proc 2: Intel 2.60GHz, 20MB L3 Cache Press <TAB> for More Information</p> <p><Enter> to Modify Embedded Serial Port Settings: <F1> for Help <T/4> for Different Configuration Option: <ESC> to Close Menu</p> <p>Figure 28. Verify Embedded Serial Port setting</p>
3.	<p>Verify the settings for Virtual Serial Port:</p>	<p>Select “Virtual Serial Port” and verify it is set for COM 1. If it is not set to COM 1, press [ENTER], select COM 1, then [ENTER]</p>  <p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p> <p>Embedded Serial Port Virtual Serial Port USB Options Processor Options NUMLOCK Power-On State SATA Controller Options</p> <p>COM 1: 1BQ4: 10: 3FBh-3FFh</p> <p>HP ProLiant DL380p Gen8 S/N: USE3193TA0 Product ID: 653200-B21 HP BIOS P70 03/01/2013 Backup Version 03/01/2013 Bootblock 03/11/2012 Power Management Controller - 3.1 65536MB Memory Configured Proc 1: Intel 2.60GHz, 20MB L3 Cache Proc 2: Intel 2.60GHz, 20MB L3 Cache Press <TAB> for More Information</p> <p><Enter> to Modify Virtual Serial Port Settings: <F1> for Help <T/4> for Different Configuration Option: <ESC> to Close Menu</p>

Procedure 15. Verify / Set Power Management

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU

In this procedure you will be configuring **Power Management Options**. The server **HP Power Profile** will be verified or set to **Maximum Performance**.

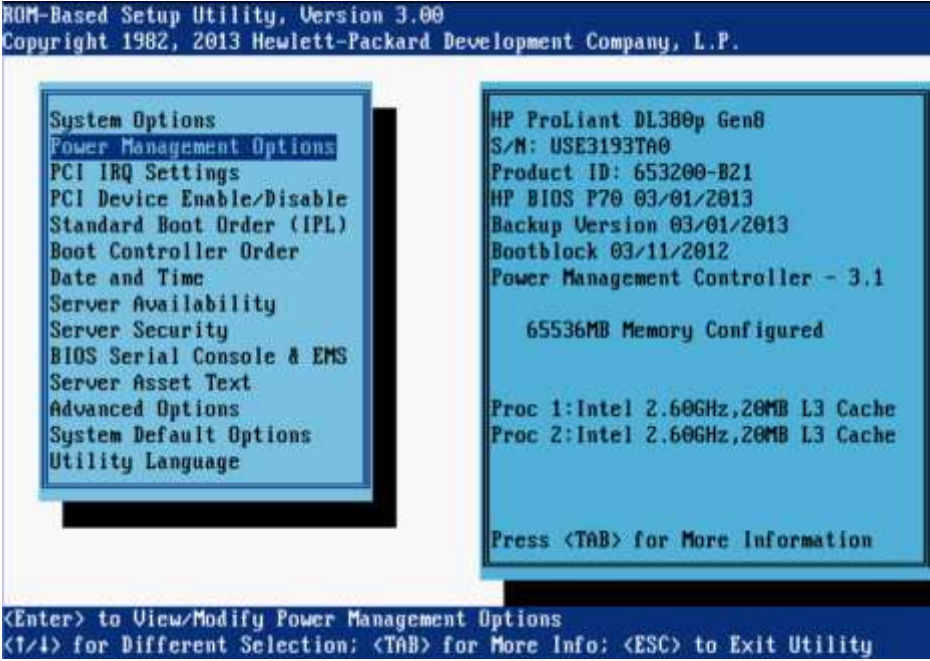
Step	Procedure	Result
<p>1.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 10px;"></div>	<p>While in RBSU, verify or set the HP Power Profile</p>	<p>Select "Power Management Options", then press [ENTER].</p>  <p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p> <p>System Options Power Management Options PCI IRQ Settings PCI Device Enable/Disable Standard Boot Order (IPL) Boot Controller Order Date and Time Server Availability Server Security BIOS Serial Console & EMS Server Asset Text Advanced Options System Default Options Utility Language</p> <p>HP ProLiant DL380p Gen8 S/N: USE3193TA0 Product ID: 653200-B21 HP BIOS P70 03/01/2013 Backup Version 03/01/2013 Bootblock 03/11/2012 Power Management Controller - 3.1</p> <p>65536MB Memory Configured</p> <p>Proc 1: Intel 2.60GHz, 20MB L3 Cache Proc 2: Intel 2.60GHz, 20MB L3 Cache</p> <p>Press <TAB> for More Information</p> <p><Enter> to View/Modify Power Management Options <1/1> for Different Selection; <TAB> for More Info; <ESC> to Exit Utility</p>

Figure 29. RBSU - Select Power Management Options

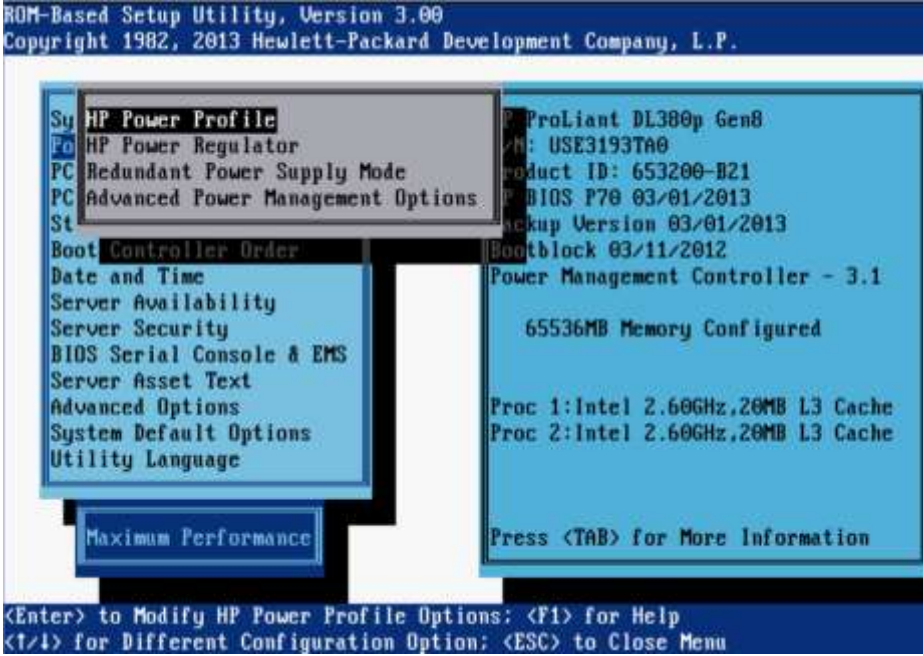
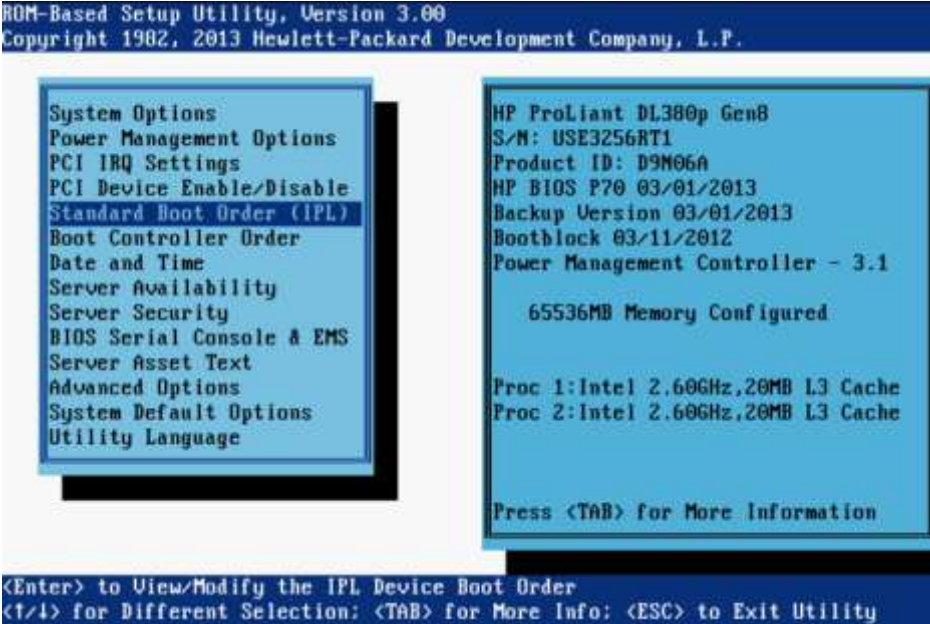
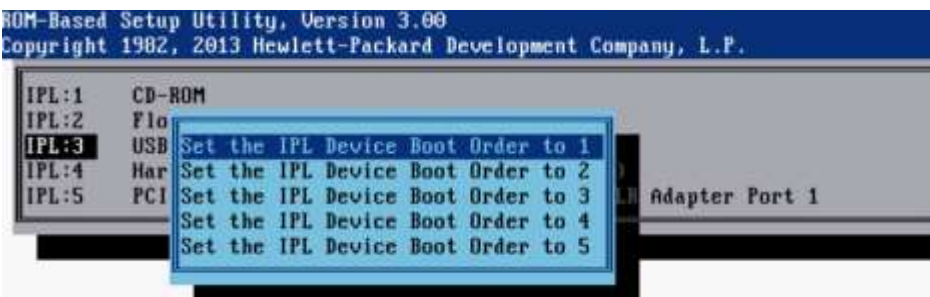

<p>2.</p>	<p>After pressing [ENTER] you will see several options to choose from such as:</p>	<p><i>HP Power Profile, HP Power Regulator, Redundant Power Supply Mode, Advanced Power Management.</i></p>  <p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p> <p>System: HP Power Profile Power: HP Power Regulator PC: Redundant Power Supply Mode PC: Advanced Power Management Options Storage: Controller Order Date and Time Server Availability Server Security BIOS Serial Console & EMS Server Asset Text Advanced Options System Default Options Utility Language</p> <p>Maximum Performance</p> <p>ProLiant DL380p Gen8 Part Number: USE3193TA0 Product ID: 653200-B21 BIOS P70 03/01/2013 Backup Version 03/01/2013 Bootblock 03/11/2012 Power Management Controller - 3.1 65536MB Memory Configured Proc 1: Intel 2.60GHz, 20MB L3 Cache Proc 2: Intel 2.60GHz, 20MB L3 Cache Press <TAB> for More Information</p> <p><Enter> to Modify HP Power Profile Options; <F1> for Help <1/4> for Different Configuration Option; <ESC> to Close Menu</p>
<p>3.</p>	<ul style="list-style-type: none"> • Select HP Power Profile • Verify it is set to Maximum Performance 	
<p>4.</p>	<p>If not set to Maximum Performance, press [ENTER] and select “Maximum Performance”, then press [ENTER]</p>	

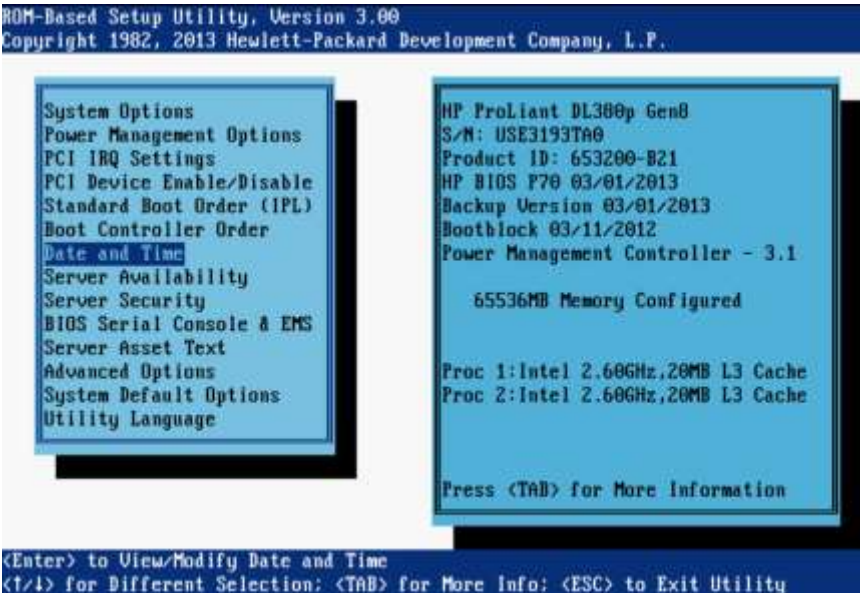
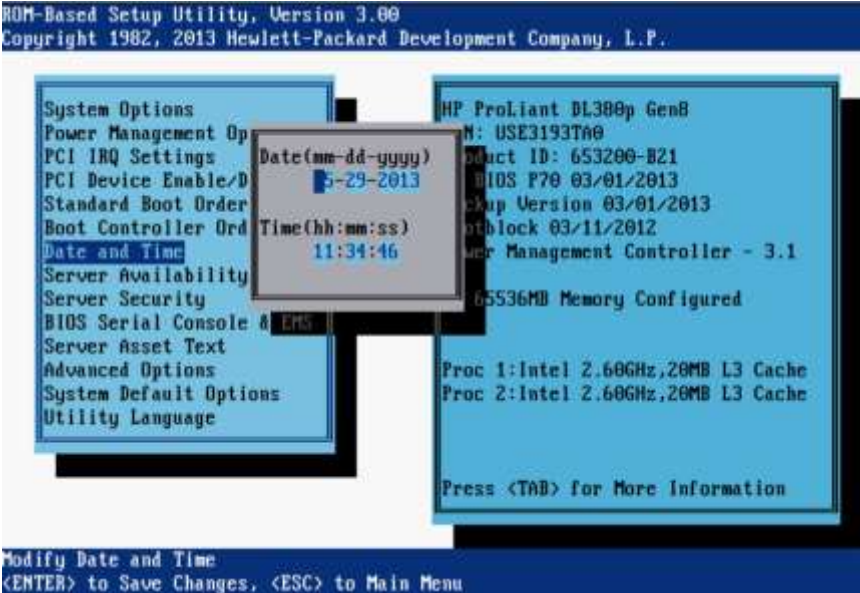
Figure 30. RBSU - Select HP Power Profile and Maximum

Procedure 16. Verify / Set Standard Boot Order (IPL)

Prerequisites & Requirements:

Server rebooted and in RBSU

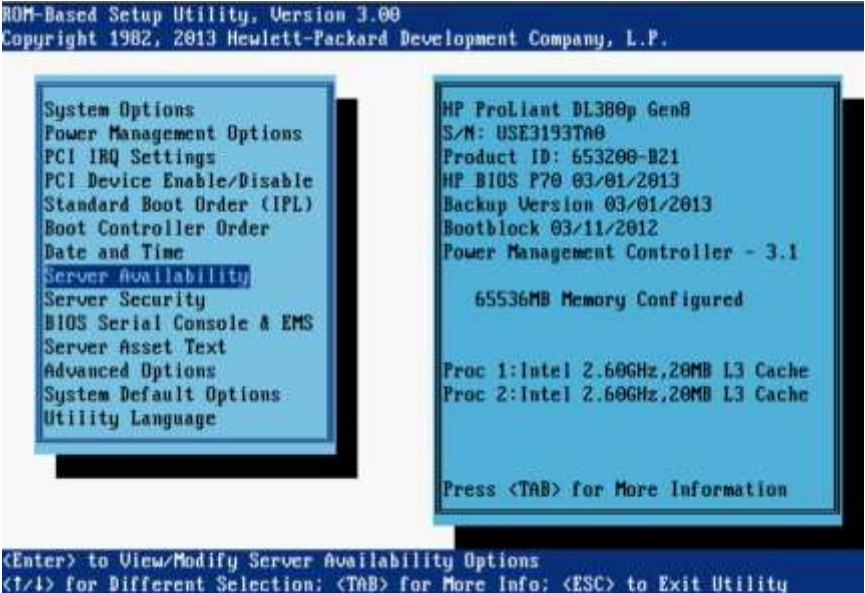
Step	Procedure	Result
<p>1.</p> <p><input type="checkbox"/></p>	<p>While in RBSU, verify or set the Standard Boot Order. Select Standard Boot Order, then press [ENTER]</p>	<p>Select "Power Management Options", then press [ENTER].</p>  <p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p> <p>System Options Power Management Options PCI IRQ Settings PCI Device Enable/Disable Standard Boot Order (IPL) Boot Controller Order Date and Time Server Availability Server Security BIOS Serial Console & EMS Server Asset Text Advanced Options System Default Options Utility Language</p> <p>HP ProLiant DL380p Gen8 S/N: USE3256RT1 Product ID: D9M06A HP BIOS P70 03/01/2013 Backup Version 03/01/2013 Bootblock 03/11/2012 Power Management Controller - 3.1 65536MB Memory Configured Proc 1: Intel 2.60GHz, 20MB L3 Cache Proc 2: Intel 2.60GHz, 20MB L3 Cache Press <TAB> for More Information</p> <p><Enter> to View/Modify the IPL Device Boot Order <F4> for Different Selection; <TAB> for More Info; <ESC> to Exit Utility</p> <p>Figure 31. Select Standard Boot Order</p>
<p>2.</p>	<p>Verify that IPL:1 is USB DriveKey (C:). If IPL:1 is not USB DriveKey, then select USB DriveKey and press [ENTER], then select "Set the IPL Device Boot Order to 1" and press [ENTER]</p>	 <p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p> <p>IPL:1 CD-ROM IPL:2 Flo IPL:3 USB Set the IPL Device Boot Order to 1 IPL:4 Har Set the IPL Device Boot Order to 2 IPL:5 PCI Set the IPL Device Boot Order to 3 Set the IPL Device Boot Order to 4 Set the IPL Device Boot Order to 5</p> <p>Adapter Port 1</p> <p>Figure 32. Select "Set the IP Device Boot Order to 1"</p>
<p>3.</p>	<p>Verify that IPL:1 is now USB DriveKey (C:)</p>	 <p>IPL:1 USB DriveKey (C:) IPL:2 CD-ROM IPL:3 Floppy Drive (A:) IPL:4 Hard Drive C: (See Boot Controller Order) IPL:5 PCI Embedded HP Ethernet 1Gb 4-port 331FLR Adapter Port 1</p> <p>Figure 33. IPL:1 is now USB DriveKey (C:)</p>

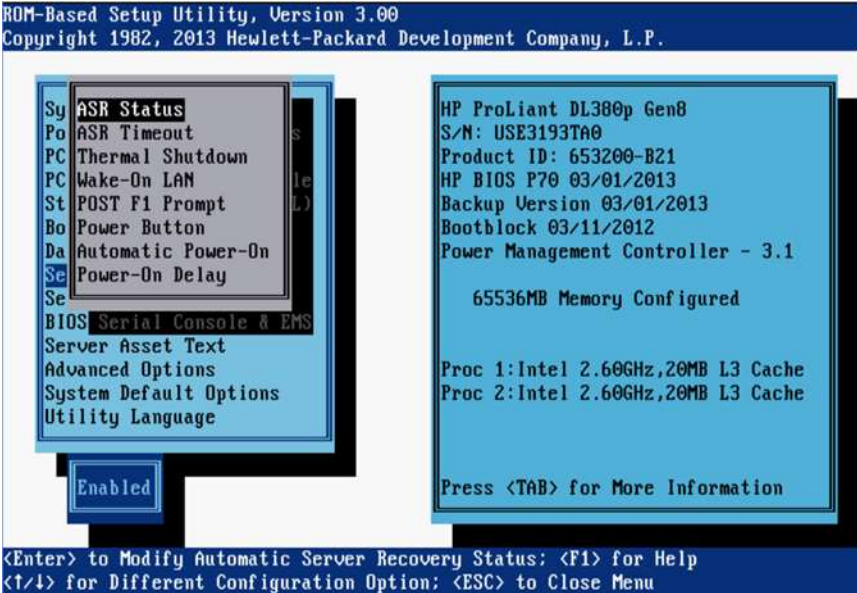

Step	Procedure	Result
<p>4.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 10px;"></div>	<p>While in RBSU, set the system Date and Time: Select "Date and Time", then press [ENTER]</p>	 <p style="text-align: center;">Figure 34. Select Date and Time</p>
<p>5.</p>	<p>Set the current Date and Time. Use UTC for the time settings. Once the correct Date and Time has been set, press [ENTER] to confirm the settings.</p>	 <p style="text-align: center;">Figure 35. Set Date and Time (UTC)</p>

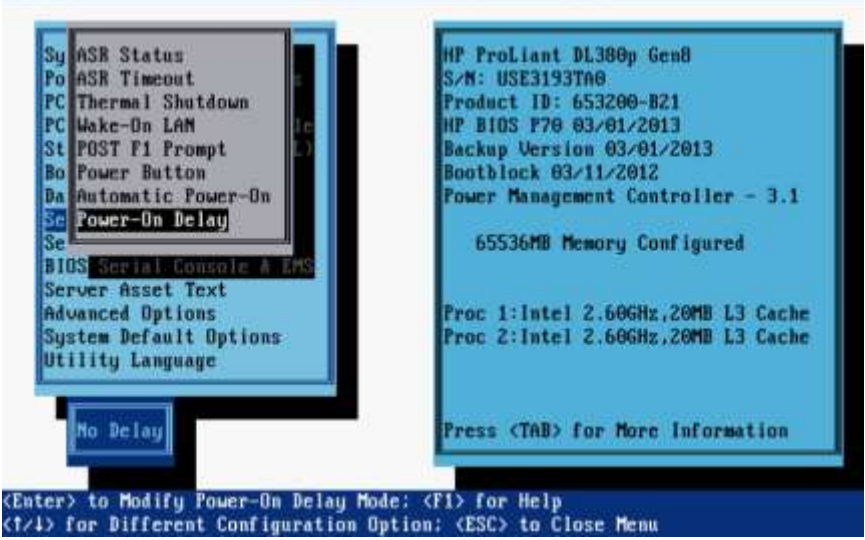
Procedure 17. Verify / Set Server Availability

Prerequisites & Requirements:

Server rebooted and in RBSU

Step	Procedure	Result
<p>1.</p> <p><input type="checkbox"/></p>	<p>While in RBSU, set the Server Availability:</p> <p>Select "Server Availability", then press [ENTER]</p>	 <p>The screenshot shows the RBSU interface. At the top, it reads 'ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.'. A menu on the left lists various options, with 'Server Availability' highlighted. To the right, system information is displayed, including 'HP ProLiant DL380p Gen8', 'S/N: USE3193TA0', 'Product ID: 653200-B21', 'HP BIOS P70 03/01/2013', 'Backup Version 03/01/2013', 'Bootblock 03/11/2012', 'Power Management Controller - 3.1', and '65536MB Memory Configured'. At the bottom, it shows 'Proc 1: Intel 2.60GHz, 20MB L3 Cache' and 'Proc 2: Intel 2.60GHz, 20MB L3 Cache'. A footer instruction reads: '<Enter> to View/Modify Server Availability Options <F1> for Different Selection: <TAB> for More Info: <ESC> to Exit Utility'.</p> <p>Figure 36. RBSU - Select Server Availability</p>
<p>2.</p>	<p>After pressing [ENTER] you will see several options to choose from including</p> <p><i>ASR Status, ASR Timeout, Thermal Shutdown, Wake-On LAN, POST F1 Prompt, Power Button, Automatic Power-On and Power-On Delay.</i></p>	
<p>3.</p>	<ul style="list-style-type: none"> ✓ Select ASR Status. ✓ Verify it is set to Enabled. 	

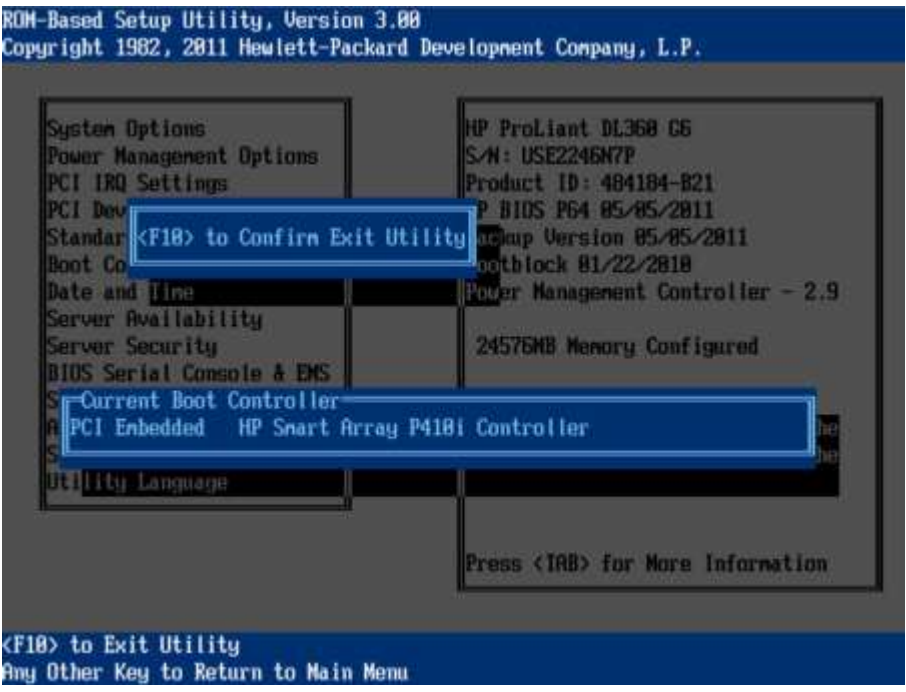
Step	Procedure	Result
4.	If not set to Enabled , press [ENTER] and select " Enabled ", then press [ENTER]	 <p>The screenshot shows the ROM-Based Setup Utility (RBSU) interface. The title bar reads "ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.". The main menu lists various options: Sy ASR Status, Po ASR Timeout, PC Thermal Shutdown, PC Wake-On LAN, St POST F1 Prompt, Bo Power Button, Da Automatic Power-On, and Se Power-On Delay. The "ASR Status" option is highlighted, and a sub-menu is open showing "Enabled" selected. To the right, system information is displayed: "HP ProLiant DL380p Gen8", "S/N: USE3193TA0", "Product ID: 653200-B21", "HP BIOS P70 03/01/2013", "Backup Version 03/01/2013", "Bootblock 03/11/2012", "Power Management Controller - 3.1", "65536MB Memory Configured", "Proc 1: Intel 2.60GHz, 20MB L3 Cache", "Proc 2: Intel 2.60GHz, 20MB L3 Cache", and "Press <TAB> for More Information". At the bottom, instructions are provided: "<Enter> to Modify Automatic Server Recovery Status; <F1> for Help <↑/↓> for Different Configuration Option; <ESC> to Close Menu".</p> <p>Figure 37. RBSU - Verify ASR Status is set to Enabled</p>
5.	Select Automatic Power-On	 <p>The screenshot shows the RBSU interface with the "Automatic Power-On" option selected. The title bar is the same as in Figure 37. The main menu lists: Sy ASR Status, Po ASR Timeout, PC Thermal Shutdown, PC Wake-On LAN, St POST F1 Prompt, Bo Power Button, Da Automatic Power-On, and Se Power-On Delay. The "Automatic Power-On" option is highlighted, and a sub-menu is open showing "Restore Last Power State" selected. The system information on the right is: "HP ProLiant DL380p Gen8", "S/N: USE3267RUU", "Product ID: D9N03A", "HP BIOS P70 08/02/2014", "Backup Version 09/08/2013", "Bootblock 03/11/2012", "Power Management Controller - 3.3", "65536MB Memory Configured", "Proc 1: Intel 2.60GHz, 20MB L3 Cache", "Proc 2: Intel 2.60GHz, 20MB L3 Cache", and "Press <TAB> for More Information". At the bottom, instructions are provided: "<Enter> to Modify Automatic Power-On Mode; <F1> for Help <↑/↓> for Different Configuration Option; <ESC> to Close Menu".</p> <p>Figure 38. RBSU - Verify Automatic Power-On is set to Enabled</p>
6.	Verify Automatic Power-On is set to Restore Last Power State	

Step	Procedure	Result
7.	If not set to Enabled , press [ENTER] and select “ Enabled ”, then press [ENTER]	
8.	Select Power-On Delay	 <p>Figure 39. RBSU - Verify Power-On Delay is set to No Delay</p>
9.	Verify Power-On Delay is set to No Delay	
10.	If not set to Enabled , press [ENTER] and select “ No Delay ”, then press [ENTER]	

Procedure 18. Exit the RBSU

Prerequisites & Requirements:

- ✓ Tasks within the RBSU have been completed.
- ✓ To **Exit** the **RBSU**, press <ESC> and then press <F10> to Confirm Exit Utility

Step	Procedure	Result
<p>1.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 10px;"></div>	<p>While in RBSU, set the Server Availability:</p> <p>Select "Server Availability", then press [ENTER]</p>	 <p>Figure 40. RBSU - Exit ROM-Based Setup Utility</p>
<p>2.</p>	<p>Expected Results:</p> <p>The BIOS for the server is successfully configured, memory and processors are verified.</p>	

J.2 GEN9: RMS CONFIGURE ILO

J.2.1 RMS: Configure iLO

Procedure 19. Gen9: Configure Integrated Lights Out (iLO) for Rack Mount Servers (RMS)

Prerequisites & Requirements:

- ✓ Server powered on
- ✓ Server booting up or rebooted


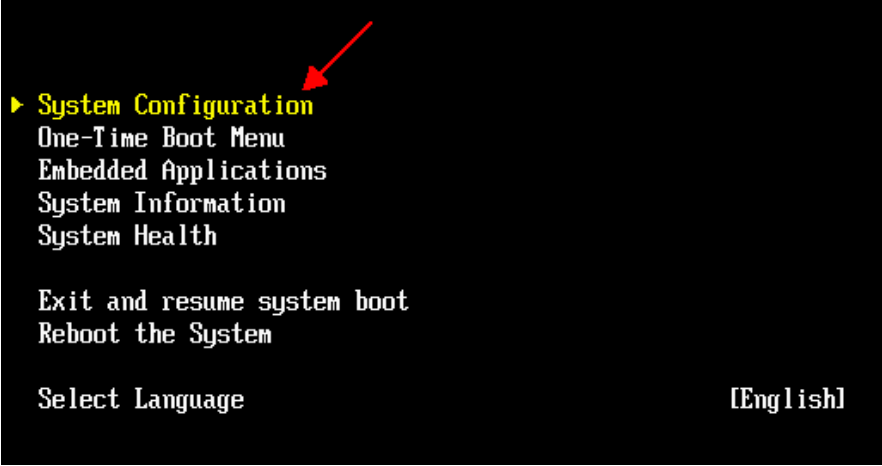
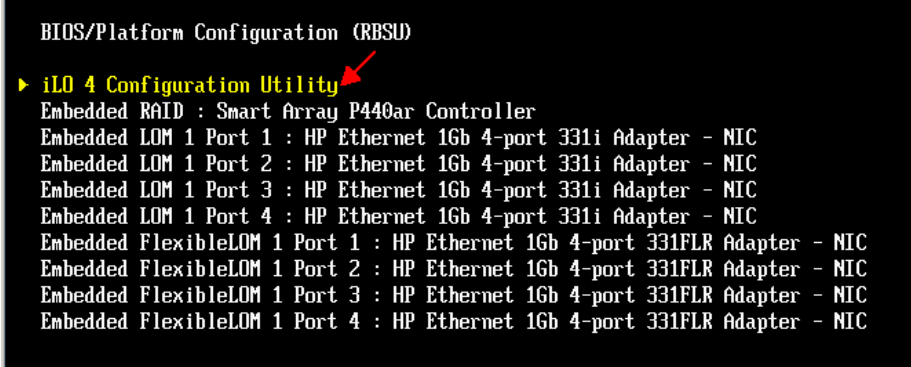
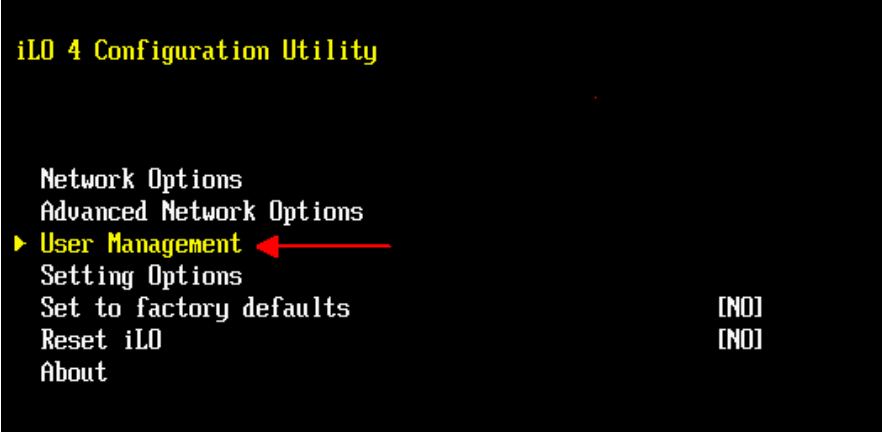

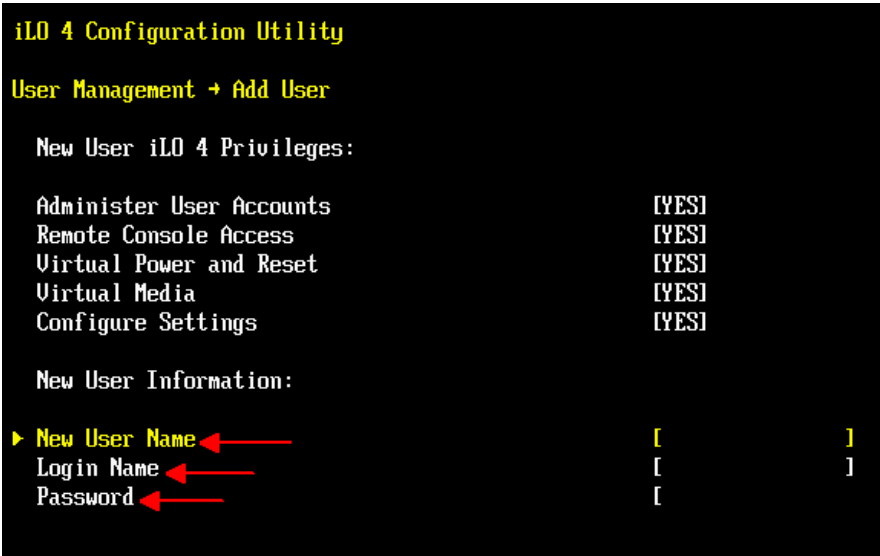
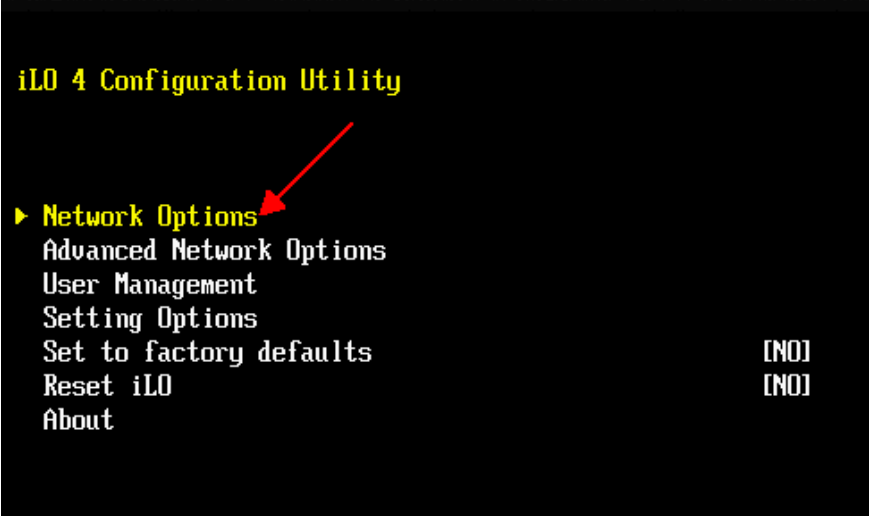
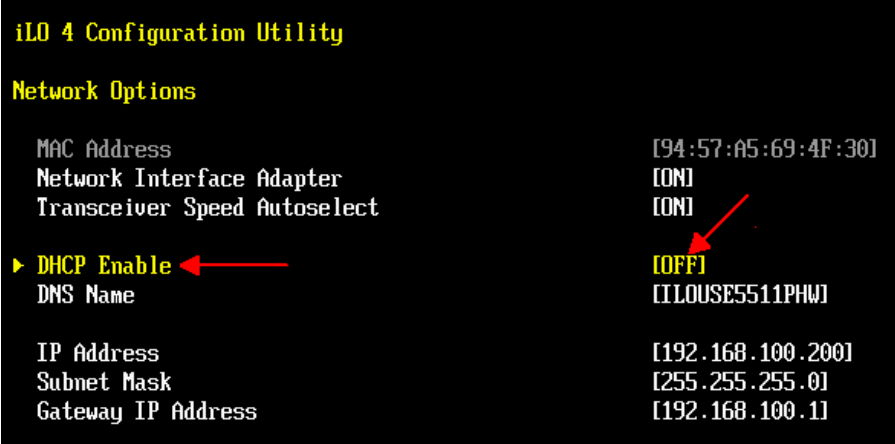
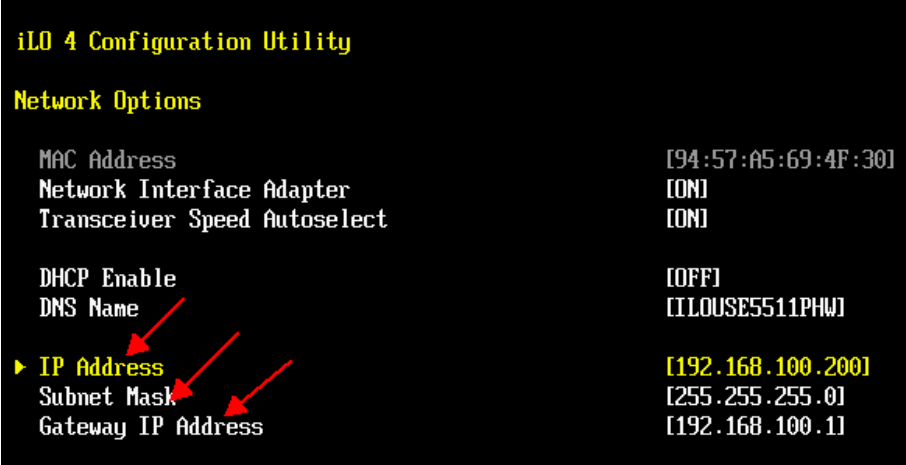
Step	Procedure	Result
<p>1.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 10px;"></div>	<p>Reboot the server. You will see an HP screen as shown below. When prompted with the option to Press F9 for System Utilities, do so. Once F9 is pressed, you should see "F9" selected on the screen as shown below:</p>	 <p>The screenshot shows the HP iLO configuration interface. At the top right is the 'Hewlett Packard Enterprise' logo. The main area displays system information including BIOS version (P09 v2.99), system memory (256 GB), and processor details. A grid of configuration options is visible on the right, with checkboxes for Smart Storage, Smart Array, Power Regulator, Dynamic Power Capping, HPE SmartMemory, HPE RESTful API, Intelligent Provisioning, and Set of Services. At the bottom, a row of function key options is shown: F9 System Utilities (highlighted with a red arrow), F10 Intelligent Provisioning, F11 Boot Menu, and F12 Network Boot.</p>

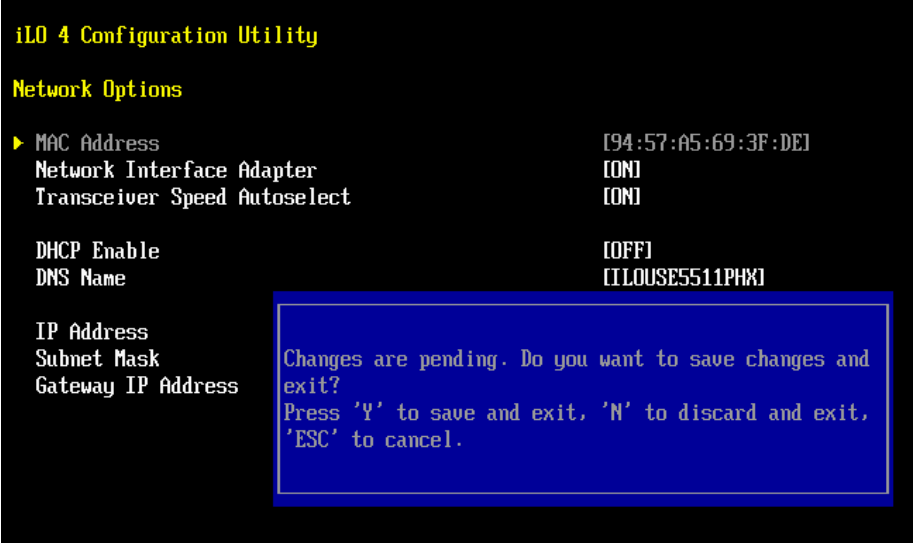
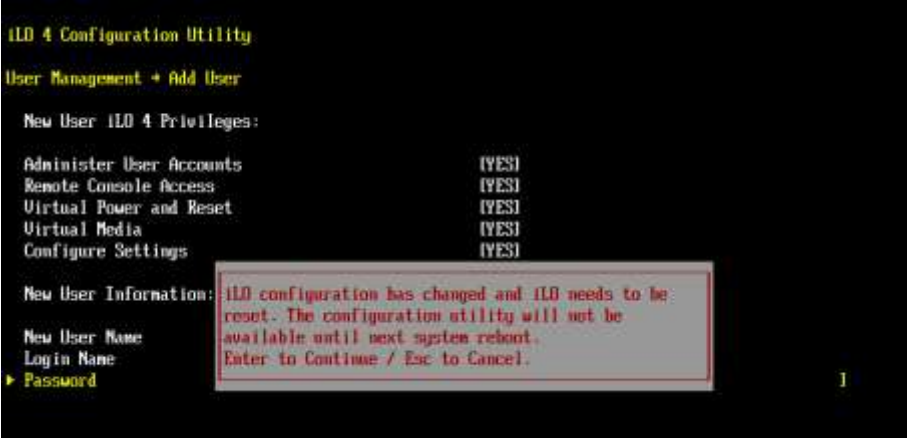
Figure 41. Gen9: iLO Configuration - GEN9: Press [F9] to configure

Step	Procedure	Result
2.	After F9 is pressed select System Configuration then select iLO 4 Configuration Utility	 <p>► System Configuration One-Time Boot Menu Embedded Applications System Information System Health Exit and resume system boot Reboot the System Select Language [English]</p> <p>Figure 42. Gen9: iLO4: Select System Configuration</p>  <p>BIOS/Platform Configuration (RBSU) ► iLO 4 Configuration Utility Embedded RAID : Smart Array P440ar Controller Embedded LOM 1 Port 1 : HP Ethernet 1Gb 4-port 331i Adapter - NIC Embedded LOM 1 Port 2 : HP Ethernet 1Gb 4-port 331i Adapter - NIC Embedded LOM 1 Port 3 : HP Ethernet 1Gb 4-port 331i Adapter - NIC Embedded LOM 1 Port 4 : HP Ethernet 1Gb 4-port 331i Adapter - NIC Embedded FlexibleLOM 1 Port 1 : HP Ethernet 1Gb 4-port 331FLR Adapter - NIC Embedded FlexibleLOM 1 Port 2 : HP Ethernet 1Gb 4-port 331FLR Adapter - NIC Embedded FlexibleLOM 1 Port 3 : HP Ethernet 1Gb 4-port 331FLR Adapter - NIC Embedded FlexibleLOM 1 Port 4 : HP Ethernet 1Gb 4-port 331FLR Adapter - NIC</p> <p>Figure 43. Gen9: iLO: Select iLO4 Configuration Utility</p>
3.	After the initial iLO Configuration Utility screen appears, select User Management	 <p>iLO 4 Configuration Utility Network Options Advanced Network Options ► User Management Setting Options Set to factory defaults [NO] Reset iLO [NO] About</p> <p>Figure 44. Gen9: iLO Configuration - User Management</p>

Step	Procedure	Result
4.	Select Add User press [ENTER] to add the admusr user.	 <p>The screenshot shows the 'System Configuration' title at the top. Below it is the 'iLO 4 Configuration Utility' header, followed by 'User Management'. Under 'User Management', there are two options: 'Add User' and 'Edit/Remove User'. A red arrow points to the 'Add User' option.</p> <p>Figure 45. Gen9: iLO Configuration - Add User</p>
5.	Enter the New User Name, Login Name and Password information for tekelec : New User Name: tekelec Login Name: tekelec Password: tekelec1	 <p>The screenshot shows the 'iLO 4 Configuration Utility' header, followed by 'User Management → Add User'. Below this is the 'New User iLO 4 Privileges:' section with a list of privileges and their status: 'Administer User Accounts [YES]', 'Remote Console Access [YES]', 'Virtual Power and Reset [YES]', 'Virtual Media [YES]', and 'Configure Settings [YES]'. Below that is the 'New User Information:' section with three input fields: 'New User Name', 'Login Name', and 'Password'. Red arrows point to each of these fields. The 'New User Name' field contains a space character, and the 'Login Name' and 'Password' fields are empty.</p> <p>Figure 46. Gen9: iLO Configuration - Add New User Name: tekelec</p>

Step	Procedure	Result
6.	Press [ESC] to go back to the iLO 4 Configuration Utility menu, then select Network Options .	 <p>The screenshot shows the 'iLO 4 Configuration Utility' menu. The 'Network Options' item is highlighted in yellow and has a red arrow pointing to it. Other menu items include 'Advanced Network Options', 'User Management', 'Setting Options', 'Set to factory defaults', 'Reset iLO', and 'About'. The 'Set to factory defaults' and 'Reset iLO' items have '[NO]' next to them.</p> <p>Figure 47. Gen9: iLO Configuration - select Network Options</p>
7.	Within the Network menu verify that DHCP Enable is set to [OFF] . IF not set to [OFF] , press [ENTER] and arrow down to select [OFF] then press [ENTER] .	 <p>The screenshot shows the 'iLO 4 Configuration Utility' menu with 'Network Options' selected. The 'DHCP Enable' item is highlighted in yellow and has a red arrow pointing to it. Other items include 'MAC Address', 'Network Interface Adapter', 'Transceiver Speed Autoselect', 'DNS Name', 'IP Address', 'Subnet Mask', and 'Gateway IP Address'. The values for these items are shown on the right side of the screen.</p> <p>Figure 48. Gen9: iLO Configuration - DHCP Enable to OFF</p>

Step	Procedure	Result
8.	Use the arrow keys to move up/down to set the IP Address , Subnet Mask and Gateway IP Address for the server.	<p>IP Address should be set based on the information in the NAPD.</p> <p>Subnet Mask: 255.255.255.0 Gateway IP Address: 192.168.100.1</p>  <pre> iLO 4 Configuration Utility Network Options MAC Address [94:57:A5:69:4F:30] Network Interface Adapter [ON] Transceiver Speed Autoselect [ON] DHCP Enable [OFF] DNS Name [ILOUSE5511PHW] ▶ IP Address [192.168.100.200] Subnet Mask [255.255.255.0] Gateway IP Address [192.168.100.1] </pre> <p>Figure 49. Gen9: iLO Configuration - Network Configuration IP, Subnet, Gateway</p>

Step	Procedure	Result
9.	Press [F10] to save all changes, ENTER "Y" to confirm then exit out and reboot the server	 <p>Figure 50. Gen9: iLO Configuration - F10 Save Changes</p>  <p>Figure 51. Gen9: iLO Configuration - Change Reboot Message</p>
10.	Repeat this procedure for other ship loose servers for the work order.	

J.2.2 GEN9: RMS BIOS Configuration, verify processor & memory

In this section you will be configuring the BIOS on the Rack Mount Server and verifying the processor and memory configuration.

Verify / Configure BIOS settings and verify configured memory

Procedure 20. Gen9: Enter the ROM-Based Setup Utility (RBSU)

Prerequisites & Requirements:

- ✓ Server powered on
- ✓ KVM connectivity to the server to get console


Step	Procedure	Result
<p>1.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 10px;"></div>	<p>Reboot the server. You will see an HP screen as shown below. When prompted with the option to Press F9 for System Utilities, do so. Once F9 is pressed, you should see "F9" selected on the screen as shown below:</p>	 <p>The screenshot shows the HP RBSU splash screen with the following details:</p> <ul style="list-style-type: none"> Copyright: 1982 - 2015 Hewlett-Packard Enterprise Development LP HP ProLiant DL380 Gen9 RBSU Version: F09 v2.00 (12/27/2015) Serial Number: US046930E3 System Memory: 256 GB 2 Processor(s) detected. 24 total cores enabled. Hyperthreading is enabled. Proc 1: Intel(R) Xeon(R) CPU E5-2680 v3 @ 2.50GHz Proc 2: Intel(R) Xeon(R) CPU E5-2680 v3 @ 2.50GHz UPI Speed: 9.6 GB/s HPE Power Profile Mode: Maximum Performance Power Regulator Mode: Static High Performance Advanced Memory Protection Mode: Advanced ECC Support Inlet Ambient Temperature: 21°C / 69°F Boot Mode: Legacy BIOS Redundant BIOS Detected - This system contains a valid backup system BIOS HPE SmartMemory authenticated in all populated DIMM slots. Network Information: iLO 4 IPv4: 10.75.4.131, iLO 4 IPv6: FE80::9657:85F7:FE4F:F3A2 Utility Buttons: F9 System Utilities, F10 Intelligent Provisioning, F11 Boot Menu, F12 Network Boot, Smart Storage Battery, Smart Array, Power Regulator, Dynamic Power Capping, HPE SmartMemory, HPE RESTMAN API, Intelligent Processing, See of Sensors 3D, iLO Management Engine, iLO Advanced, Appliance Management.

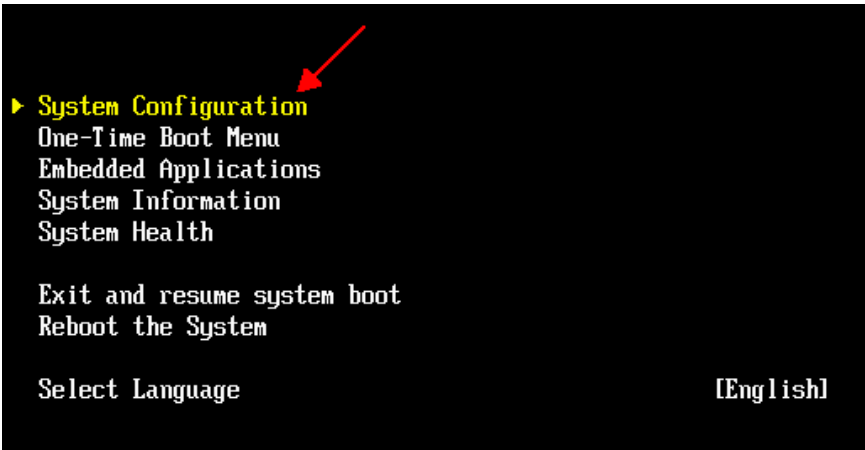
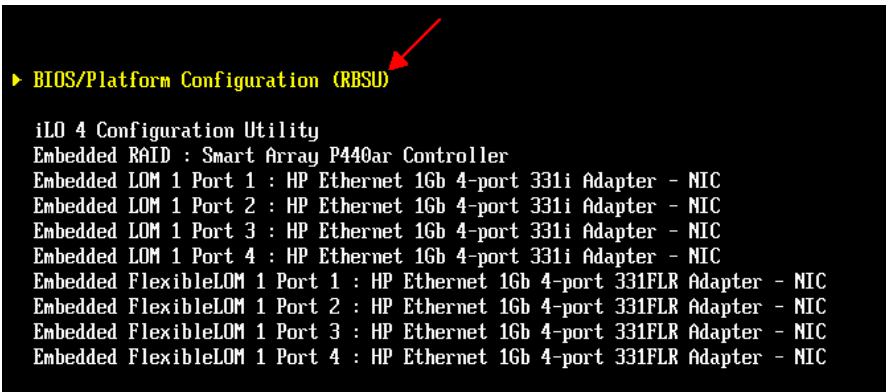
Figure 52. Gen9 RBSU - Enter RBSU - "F9 Pressed" indicated in HP Splash screen

Procedure 21. Gen9: Verify / Configure Serial Port Options

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU mode

In this procedure you will be verifying and/or configuring the Serial Port Options for the Embedded and Virtual Serial Ports

Step	Procedure	Result
<p>1.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>Press Enter to go into the System Configuration menu then select BIOS/Platform Configuration (RBSU).</p>	<div style="background-color: black; color: white; padding: 10px; margin-bottom: 10px;">  <pre> ▶ System Configuration One-Time Boot Menu Embedded Applications System Information System Health Exit and resume system boot Reboot the System Select Language [English] </pre> </div> <p>Figure 53. Gen9: Select System Configuration</p> <div style="background-color: black; color: white; padding: 10px;">  <pre> ▶ BIOS/Platform Configuration (RBSU) iLO 4 Configuration Utility Embedded RAID : Smart Array P440ar Controller Embedded LOM 1 Port 1 : HP Ethernet 1Gb 4-port 331i Adapter - NIC Embedded LOM 1 Port 2 : HP Ethernet 1Gb 4-port 331i Adapter - NIC Embedded LOM 1 Port 3 : HP Ethernet 1Gb 4-port 331i Adapter - NIC Embedded LOM 1 Port 4 : HP Ethernet 1Gb 4-port 331i Adapter - NIC Embedded FlexibleLOM 1 Port 1 : HP Ethernet 1Gb 4-port 331FLR Adapter - NIC Embedded FlexibleLOM 1 Port 2 : HP Ethernet 1Gb 4-port 331FLR Adapter - NIC Embedded FlexibleLOM 1 Port 3 : HP Ethernet 1Gb 4-port 331FLR Adapter - NIC Embedded FlexibleLOM 1 Port 4 : HP Ethernet 1Gb 4-port 331FLR Adapter - NIC </pre> </div> <p>Figure 54. Gen9: Select BIOS/Platform Configuration (RBSU)</p>

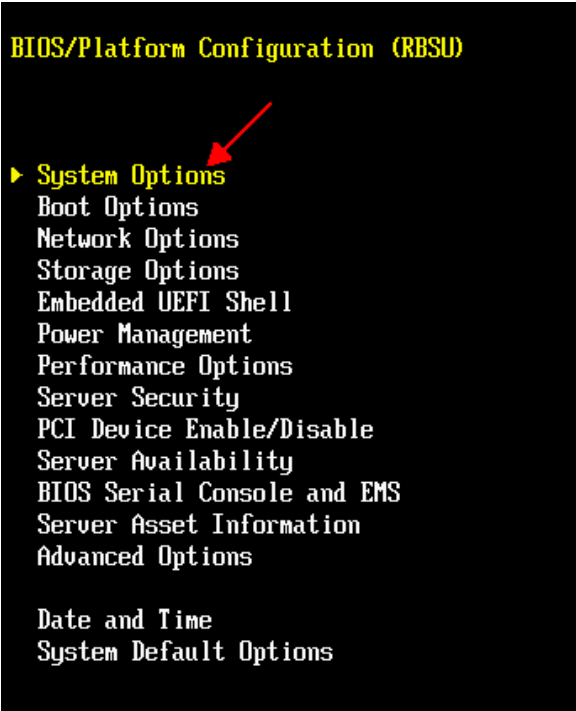
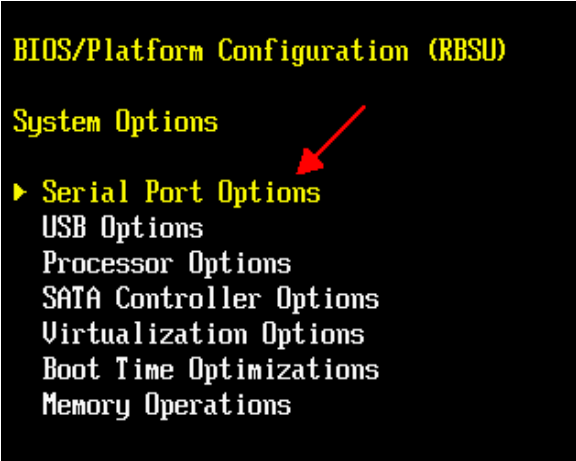
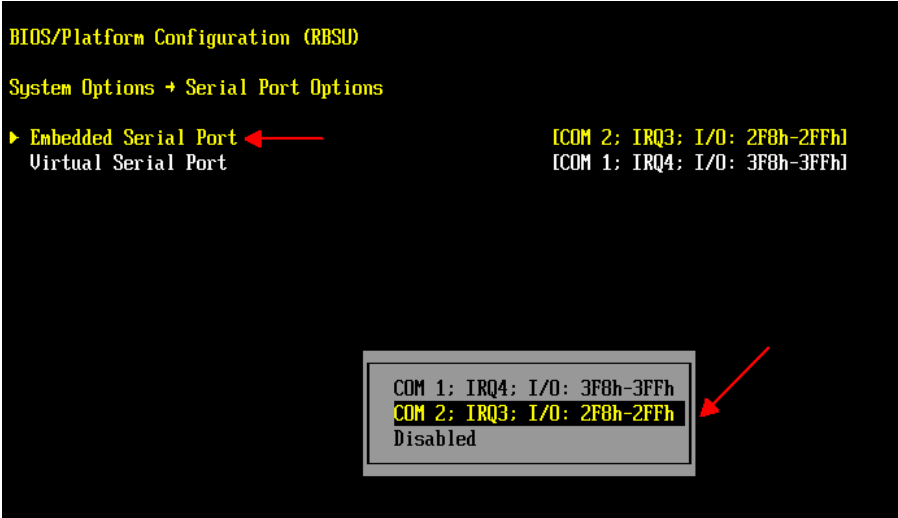
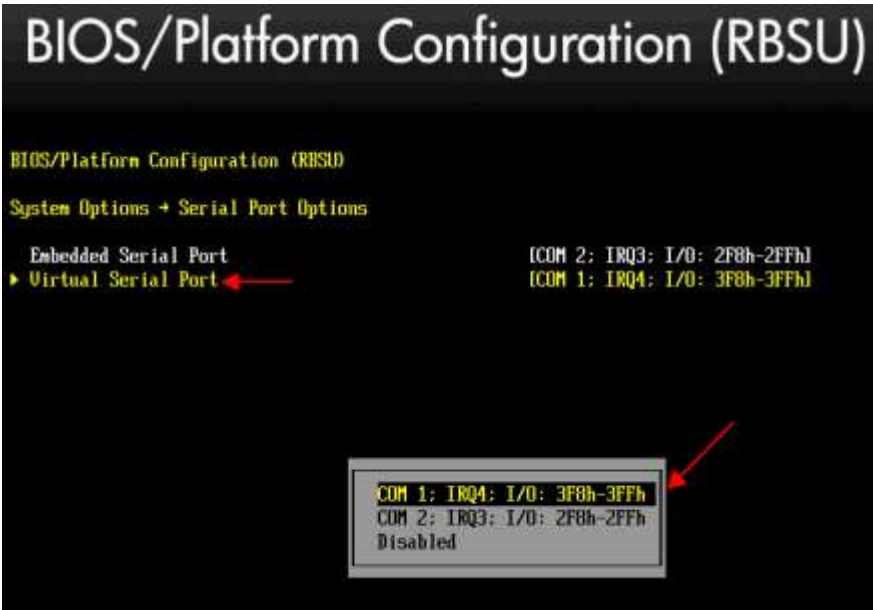
Step	Procedure	Result
2.	Select System Options then select Serial Port Options	 <p>BIOS/Platform Configuration (RBSU)</p> <ul style="list-style-type: none"> ▶ System Options <ul style="list-style-type: none"> Boot Options Network Options Storage Options Embedded UEFI Shell Power Management Performance Options Server Security PCI Device Enable/Disable Server Availability BIOS Serial Console and EMS Server Asset Information Advanced Options Date and Time System Default Options
		 <p>BIOS/Platform Configuration (RBSU)</p> <p>System Options</p> <ul style="list-style-type: none"> ▶ Serial Port Options <ul style="list-style-type: none"> USB Options Processor Options SATA Controller Options Virtualization Options Boot Time Optimizations Memory Operations

Figure 55. Gen9: ROM-Based Setup Utility - System Options

Figure 56. Gen9: ROM-Based Setup Utility - Serial Port Options

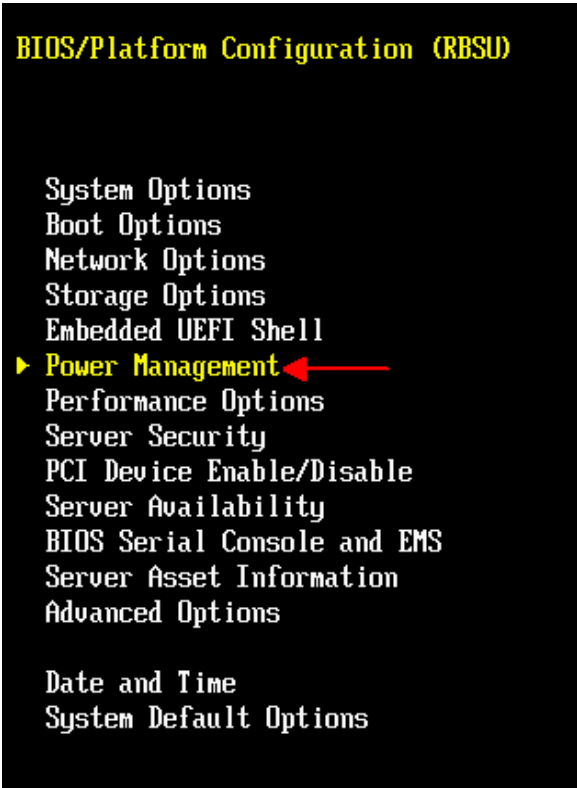
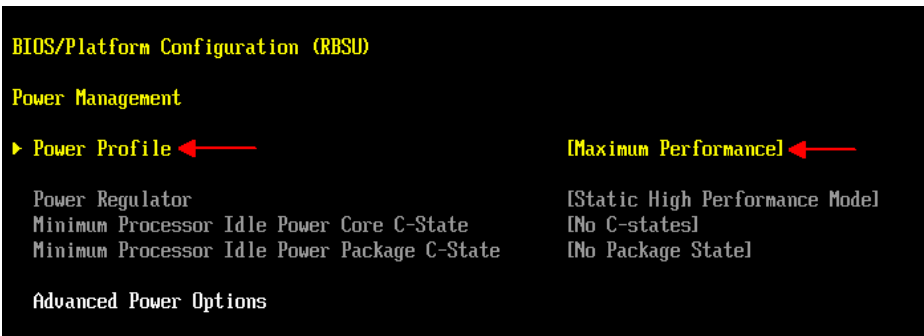
Step	Procedure	Result
<p>3.</p>	<p>Verify the settings for Embedded Serial Port:</p> <p>Select “Embedded Serial Port” and verify it is set for “COM 2”. If it is not set to COM 2, press [ENTER], select COM 2, then [ENTER]</p>	 <p>BIOS/Platform Configuration (RBSU)</p> <p>System Options + Serial Port Options</p> <p>▶ Embedded Serial Port ← [COM 2; IRQ3; I/O: 2F8h-2FFh]</p> <p>Virtual Serial Port [COM 1; IRQ4; I/O: 3F8h-3FFh]</p> <p>COM 1; IRQ4; I/O: 3F8h-3FFh COM 2; IRQ3; I/O: 2F8h-2FFh Disabled</p> <p>Figure 57. Gen9: Verify Embedded Serial Port setting</p>
<p>4.</p>	<p>Verify the settings for Virtual Serial Port:</p> <p>Select “Virtual Serial Port” and verify it is set for COM 1. If it is not set to COM 1, press [ENTER], select COM 1, then [ENTER]</p>	 <p>BIOS/Platform Configuration (RBSU)</p> <p>BIOS/Platform Configuration (RBSU)</p> <p>System Options + Serial Port Options</p> <p>Embedded Serial Port [COM 2; IRQ3; I/O: 2F8h-2FFh]</p> <p>▶ Virtual Serial Port ← [COM 1; IRQ4; I/O: 3F8h-3FFh]</p> <p>COM 1; IRQ4; I/O: 3F8h-3FFh COM 2; IRQ3; I/O: 2F8h-2FFh Disabled</p> <p>Figure 58. Gen9: Verify Virtual Serial Port setting</p>

Procedure 22. Gen9: Verify / Set Power Management

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU

In this procedure you will be configuring **Power Management Options**. The server **HP Power Profile** will be verified/set to **Maximum Performance**.


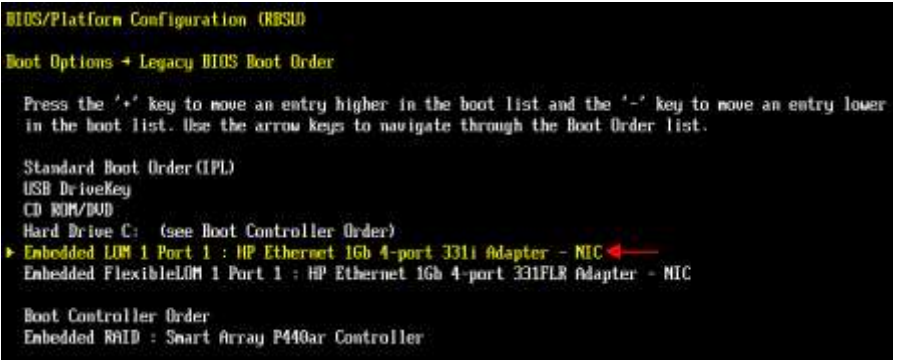
Step	Procedure	Result
<p>1.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 10px;"></div>	<p>While in RBSU, verify/set the HP Power Profile:</p> <p>Select "Power Management", then press [ENTER]</p>	 <p style="text-align: center;">Figure 59. Gen9: RBSU - Select Power Management</p>
<p>2.</p>	<p>After pressing [ENTER] you will see several options to choose from such as:</p> <p>Power Profile, Power Regulator, Minimum Processor Idle Power Core C-State, Minimum Processor Idle Power Package C-State and Advanced Power Options.</p>	 <p style="text-align: center;">Figure 60. Gen9: RBSU - Select HP Power Profile and Maximum Performance</p>
<p>3.</p>	<ul style="list-style-type: none"> • Select Power Profile. • Verify it is set to Maximum Performance 	
<p>4.</p>	<p>If not set to Maximum Performance, press [ENTER] and select "Maximum Performance", then press [ENTER]</p>	

Procedure 23. Gen9: Verify / Set Standard Boot Order (IPL)

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU

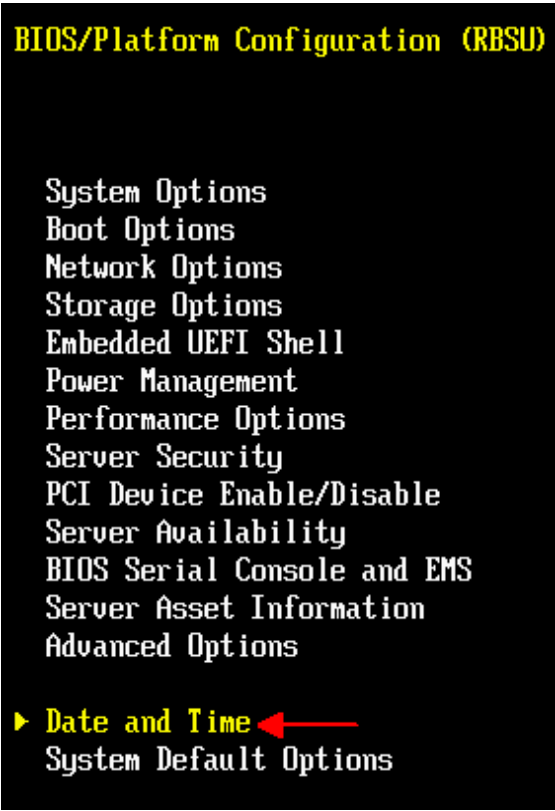

Step	Procedure	Result
<p>1.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 10px;"></div>	<p>While in RBSU, verify or set the Legacy BIOS Boot Order, Select Boot Options, and then press [ENTER], then select Legacy BIOS Boot Order then press [ENTER].</p>	<div style="background-color: black; color: white; padding: 10px; margin-bottom: 10px;"> <p style="color: yellow;">BIOS/Platform Configuration (RBSU)</p> <p>System Options</p> <p>▶ Boot Options ←</p> <p>Network Options</p> <p>Storage Options</p> <p>Embedded UEFI Shell</p> <p>Power Management</p> <p>Performance Options</p> <p>Server Security</p> <p>PCI Device Enable/Disable</p> <p>Server Availability</p> <p>BIOS Serial Console and EMS</p> <p>Server Asset Information</p> <p>Advanced Options</p> <p>Date and Time</p> <p>System Default Options</p> </div> <p style="text-align: center;">Figure 61. Gen9: Select Boot Options</p> <div style="background-color: black; color: white; padding: 10px;"> <p style="color: yellow;">BIOS/Platform Configuration (RBSU)</p> <p>Boot Options</p> <p>Boot Mode (Legacy BIOS Mode)</p> <p>UEFI Optimized Boot (Disabled)</p> <p>Boot Order Policy (Retry Boot Order Indefinitely)</p> <p>UEFI Boot Order</p> <p>Advanced UEFI Boot Maintenance</p> <p>▶ Legacy BIOS Boot Order ←</p> </div> <p style="text-align: center;">Figure 62. Gen9: Select Legacy BIOS Boot Order</p>

Step	Procedure	Result
2.	<p>Verify under Standard Boot Order (IPL) that USB DriveKey is in the first position and Embedded LOM is in the fourth position. Press “+” or “-” to maneuver to the correct position.</p>	<p>Legacy BIOS Boot Order: USB DriveKey CD ROM/DVD Hard Drive C Embedded LOM 1 Port 1 Embedded FlexibleLOM 1 Port 1</p>  <p>Figure 63. Select “Set the IP Device Boot Order USB DriveKey”</p>  <p>Figure 64. Select “Set the IP Device Boot Order Embedded LOM 1 Port 1”</p>

Procedure 24. Gen9: Verify / Set system Date and Time

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU

Step	Procedure	Result
<p>1.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 10px;"></div>	<p>While in RBSU, set the system Date and Time: Select "Date and Time", then press [ENTER]</p>	 <p style="text-align: center;">Figure 65. Gen9: Select Date and Time</p>
<p>2.</p>	<p>Set the current Date and Time. Use UTC for the time settings. Once the correct Date and Time has been set, press [ENTER] to confirm the settings.</p>	 <p style="text-align: center;">Figure 66. Gen9: Set Date and Time (UTC)</p>

Procedure 25. Gen9: Verify / Set Server Availability

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU

In this procedure you will be configuring **Server Availability** which determines how the server will behave following a power loss and recovery. The server will be set to **Restore Last Power State** following a power outage and recovery. In addition it will be set to power on with **No Delay**.

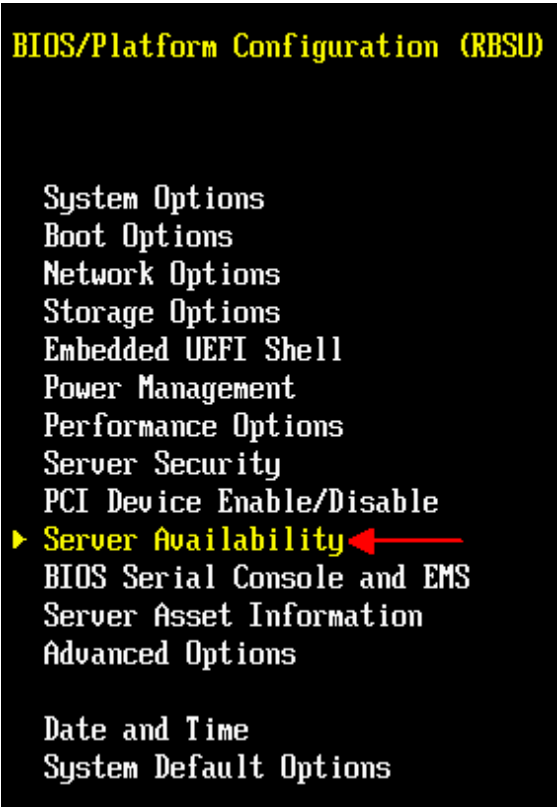
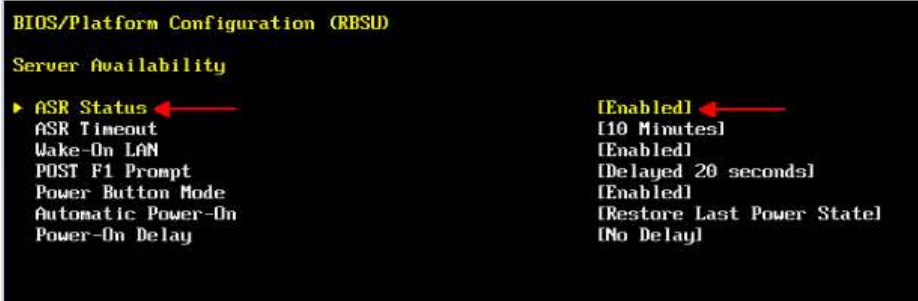



Step	Procedure	Result
<p>1.</p> <p><input type="checkbox"/></p>	<p>While in RBSU, set the Server Availability: Select "Server Availability", then press [ENTER]</p>	 <p>The screenshot shows the BIOS/Platform Configuration (RBSU) menu. The title is 'BIOS/Platform Configuration (RBSU)'. The menu items are: System Options, Boot Options, Network Options, Storage Options, Embedded UEFI Shell, Power Management, Performance Options, Server Security, PCI Device Enable/Disable, Server Availability (highlighted with a red arrow), BIOS Serial Console and EMS, Server Asset Information, Advanced Options, Date and Time, and System Default Options.</p>
<p>2.</p>	<p>After pressing [ENTER] you will see several options to choose from including: ASR Status, ASR Timeout, Wake-On LAN, POST F1 Prompt, Power Button Mode, Automatic Power-On and Power-On Delay.</p>	
<p>3.</p>	<ul style="list-style-type: none"> • Select ASR Status. • Verify it is set to Enabled 	

Figure 67. Gen 9: RBSU - Select Server Availability

Step	Procedure	Result
4.	If not set to Enabled , press [ENTER] and select " Enabled ", then press [ENTER]	 <p>The screenshot shows the BIOS/Platform Configuration (RBSU) menu. Under the 'Server Availability' section, 'ASR Status' is highlighted with a red arrow pointing to it, and its value is '[Enabled]'. Other settings include ASR Timeout ([10 Minutes]), Wake-On LAN ([Enabled]), POST F1 Prompt ([Delayed 20 seconds]), Power Button Mode ([Enabled]), Automatic Power-On ([Restore Last Power State]), and Power-On Delay ([No Delay]).</p> <p>Figure 68. Gen9: RBSU - Verify ASR Status is set to Enabled</p>
5.	Select Automatic Power-On	 <p>The screenshot shows the BIOS/Platform Configuration (RBSU) menu. Under the 'Server Availability' section, 'Automatic Power-On' is highlighted with a red arrow pointing to it, and its value is '[Restore Last Power State]'. Other settings include ASR Status ([Enabled]), ASR Timeout ([10 Minutes]), Wake-On LAN ([Enabled]), POST F1 Prompt ([Delayed 20 seconds]), Power Button Mode ([Enabled]), and Power-On Delay ([No Delay]).</p> <p>Figure 69. Gen9: RBSU - Verify Automatic Power-On is set to Restore Last Power State</p>
6.	Verify Automatic Power-On is set to Restore Last Power State	
7.	If not set to Enabled , press [ENTER] and select " Enabled ", then press [ENTER]	
8.	Select Power-On Delay	 <p>The screenshot shows the BIOS/Platform Configuration (RBSU) menu. Under the 'Server Availability' section, 'Power-On Delay' is highlighted with a red arrow pointing to it, and its value is '[No Delay]'. Other settings include ASR Status ([Enabled]), ASR Timeout ([10 Minutes]), Wake-On LAN ([Enabled]), POST F1 Prompt ([Delayed 20 seconds]), Power Button Mode ([Enabled]), and Automatic Power-On ([Restore Last Power State]).</p> <p>Figure 70. Gen9: RBSU - Verify Power-On Delay is set to No Delay</p>
9.	Verify Power-On Delay is set to No Delay	

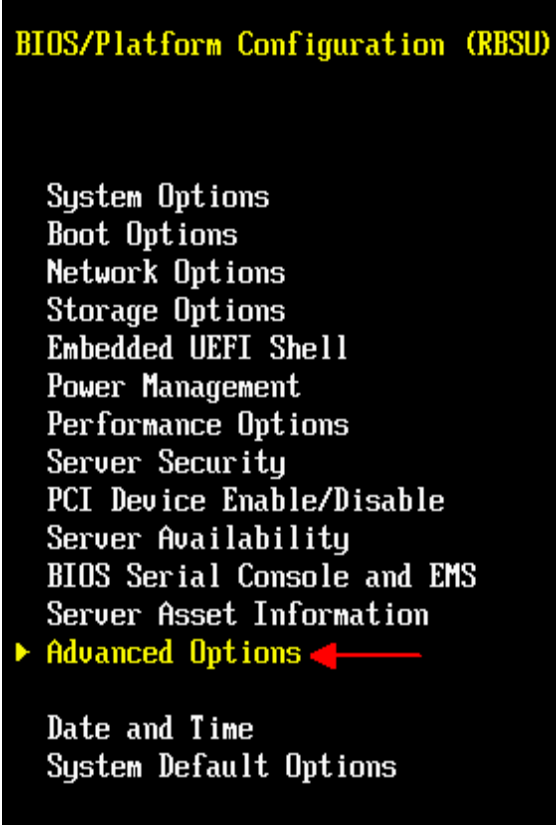

Step	Procedure	Result
10.	If not set to Enabled , press [ENTER] and select “ No Delay ”, then press [ENTER]	
11.	Select POST F1 Prompt	 <p>Figure 71. Gen9: RBSU - Verify Post F1 Prompt is set to Delayed 20 seconds</p>
12.		Verify Delayed 20 seconds is set
13.		If not set to Delayed 20 seconds , press [ENTER] and select “ Delayed 20 seconds ”, then press [ENTER]

Procedure 26. Gen9: Verify / Advanced Options

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU

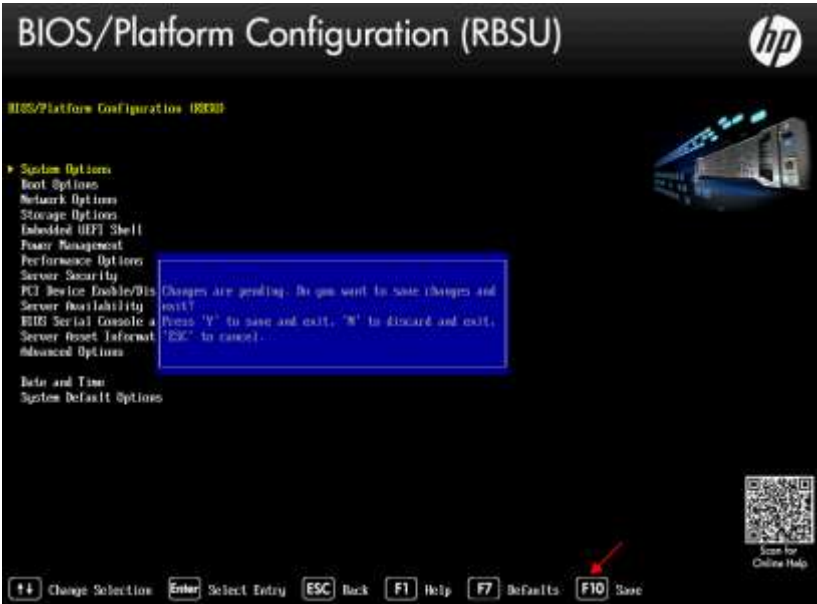
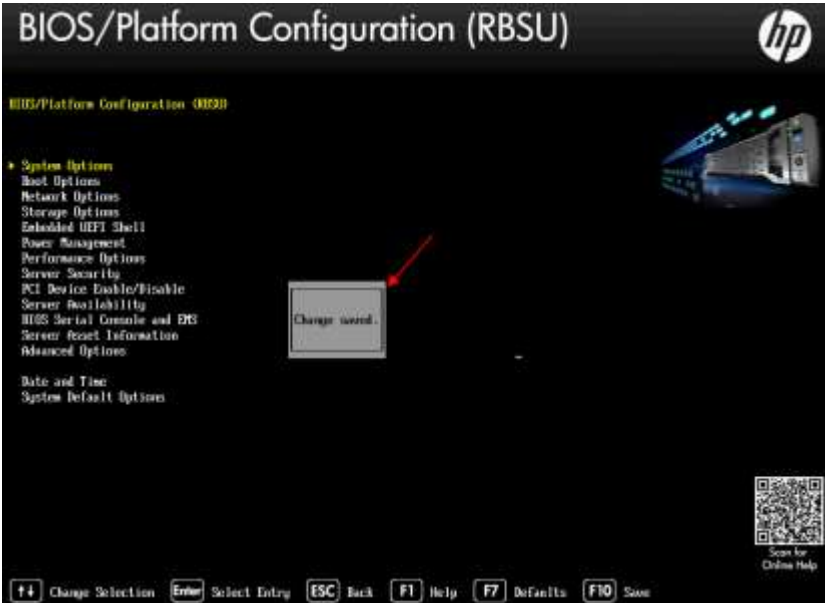
In this procedure you will be configuring **Advanced Options**. The **Fan and Thermal Options** will be verified/set to **Optimal Cooling**.

Step	Procedure	Result
<p>1.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 10px;"></div>	<p>While in RBSU, set the Advanced Options. Select "Advanced Options", then press [ENTER].</p>	 <p style="text-align: center;">Figure 72. Gen 9: RBSU - Verify Advanced Options</p>
<p>2.</p>	<p>After pressing [ENTER] you will see several options to choose from including: <i>ROM Selection, Embedded Video Connection, Fan and Thermal Options, Advanced System ROM options.</i></p>	
<p>3.</p>	<p>Select Fan and Thermal Options</p>	
<p>4.</p>	<p>Verify Thermal Configuration is set for Optimal Cooling</p>	 <p style="text-align: center;">Figure 73. Gen 9: RBSU - Verify Fan and Thermal Options</p>
<p>5.</p>	<p>If not set to Optimal Cooling, press [ENTER] and select "Optimal Cooling", then press [ENTER]</p>	

Procedure 27. Gen9: Save and exit the RBSU

Prerequisites & Requirements:

Tasks within the RBSU have been completed.

Step	Procedure	Result
<p>1.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 10px;"></div>	<p>Press F10 to save changes then Enter “Y” to confirm changes. the RBSU, press <ESC> and then press <F10> to Confirm Exit Utility</p>	<div style="text-align: center;">  <p>Figure 74. Gen9: RBSU - Save Changes and Confirm</p> </div> <div style="text-align: center;">  <p>Figure 75. Gen9: RBSU - Changes Saved</p> </div>


Step	Procedure	Result
2.	To Exit the RBSU and System Utilities , press <ESC> and then press [ENTER] to confirm exit.	 <p>The screenshot shows the 'System Utilities' interface with the HP logo in the top right. The menu items listed are: System Configuration, One-Time Boot Menu, Embedded Applications, System Information, System Health, Exit and resume system, Reboot the System, and Select Language. A blue box highlights the text: 'Press ENTER to exit and resume normal boot or ESC to cancel. Enter (EXIT) ESC (CANCEL)'. At the bottom, a row of function keys is shown: '+ Change Selection', 'Enter Select Entry', 'ESC Exit' (with a red arrow pointing to it), 'F1 Help', and 'F7 Defaults'. A QR code and 'Scan for Online Help' text are in the bottom right corner.</p>
THIS PROCEDURE HAS BEEN COMPLETED		

Figure 76. Gen9: Exit System Utilities

Appendix K. ACCESSING MY ORACLE SUPPORT (MOS)

MOS (<https://support.oracle.com>) is your initial point of contact for all product support and training needs. A representative at Customer Access Support (CAS) can assist you with MOS registration.

Call the CAS main number at 1-800-223-1711 (toll-free in the US), or call the Oracle Support hotline for your local country from the list at <http://www.oracle.com/us/support/contact/index.html>.

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

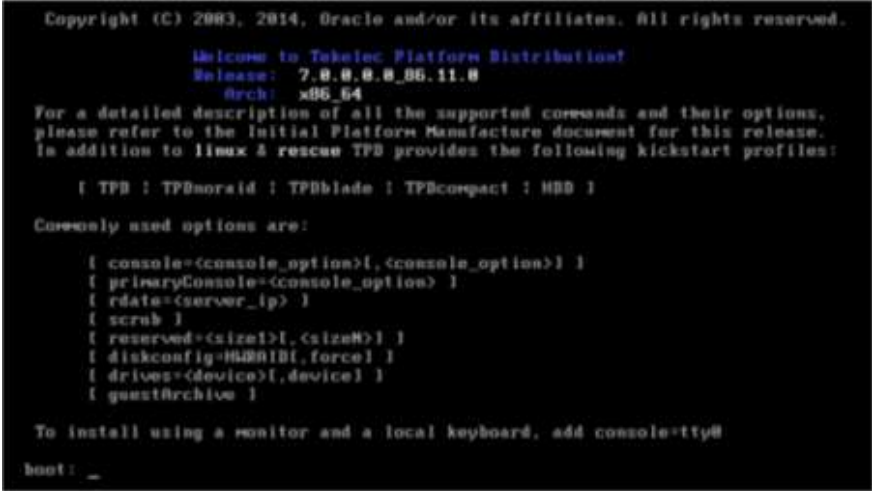
1. Select 2 for New Service Request.
2. Select 3 for Hardware, Networking and Solaris Operating System Support.
3. Select one of the following options:
 - a. For Technical issues such as creating a new Service Request (SR), Select 1
 - b. For Non-technical issues such as registration or assistance with MOS, Select 2

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

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

Appendix L. INSTALL OS IPM ON SERVERS

This section installs the OS IPM.

STEP #	Procedure	Description
<p>This section installs the OS IPM.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>If this procedure fails, contact ORACLE'S Accessing My Oracle Support (MOS), and ask for ASSISTANCE.</p>		
<p>1.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 10px;"></div>	<p>Enter TPD command</p>	<p>Figure 77 shows a sample output screen indicating the initial boot from the install media was successful. The information in this screen output is representative of TPD 7.0.0.0.0.</p>  <p>Figure 77. Boot from Media Screen, TPD 7.0.0.0.0</p> <p>Note: Based on the deployment type, either TPD or TVOE can be installed. The command to start the installation is dependent upon several factors, including the type of system, knowledge of whether an application has previously been installed or a prior IPM install failed, and what application will be installed.</p> <p>Note: Text case is important and the command must be typed exactly.</p> <p>IPM the server by entering the TPD command at the boot prompt. An example command to enter is:</p> <pre>TPDnoraid console=tty0 diskconfig=HWRAID,force</pre> <p>After entering the command to start the installation, the Linux kernel loads as shown in Figure 78.</p>

```

please refer to the Initial Platform Manufacture document for this release.
In addition to linux & rescue TPD provides the following kickstart profiles:

 [ TPD | TPDnoraid | TPDblade | TPDbladeraid | TPDnocons | T1200sol | HDD ]

Commonly used options are:

 [ console=<console_option>[,<console_option>] ]
 [ rdact=<server_ip> ]
 [ scrub ]
 [ reserved=<size>[,<size#>] ]
 [ diskconfig-HPCG[,<force>] ]
 [ drives=<device>[,<device>] ]

To install using a monitor and a local keyboard, add console=ttyB

boot: TPD
Loading vmlinuz.....
Loading initrd.img.....
.....
Ready.
    
```

Figure 78. Kernel Loading Output

After a few seconds, additional messages begin scrolling by on the screen as the Linux kernel boots, and then the drive formatting and file system creation steps begin:

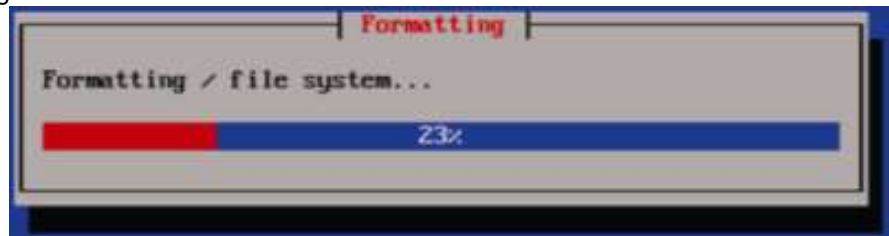


Figure 79. File System Creation Screen

Once the drive formatting and file system creation steps are complete, a screen similar to Figure 80 displays indicating the package installation step is about to begin.

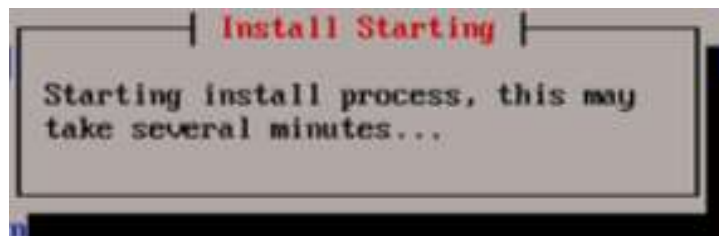
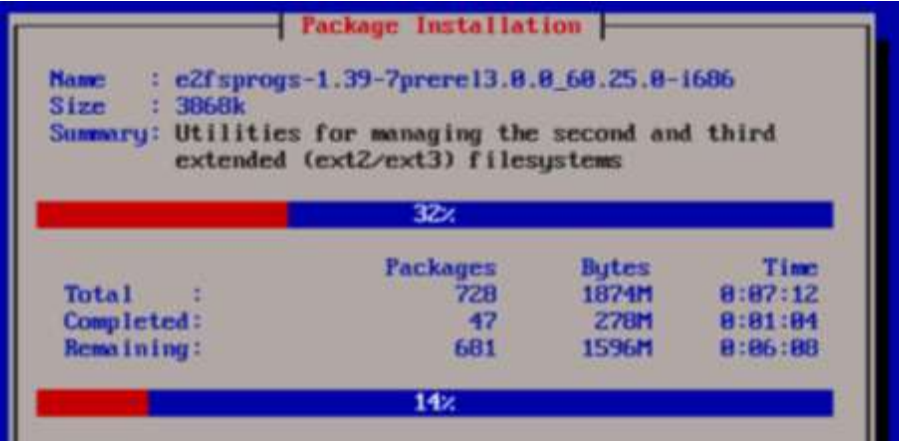


Figure 80. Package Installation Screen

Once Figure 80 displays, it may take several minutes before anything changes. After a few minutes, a screen similar to Figure 81 displays showing the status of the package installation step. For each package, there is a status bar at the top indicating how much of the package has been installed, with a cumulative status bar at the bottom indicating how many packages remain. In the middle, you the

STEP #	Procedure	Description
		<p>text statistics indicate the total number of packages, the number of packages installed, the number remaining, and current and projected time estimates.</p>  <p>Figure 81. Installation Statistics Screen</p>

STEP #	Procedure	Description
<p>2.</p> <p><input type="checkbox"/></p>	<p>Reboot the system</p>	<p>Once all the packages have been successfully installed, a screen similar to Figure 82 displays, letting you know the installation process is complete. Remove the installation media (DVD or USB key) and press Enter to reboot the system.</p> <p>Note: It is possible the system will reboot several times during the IPM process. No user input is required if this occurs.</p> <div> </div> <p>Figure 82. Installation Complete Screen</p> <p>After a few minutes, the server boot sequence starts and eventually displays that it is booting the new IPM load.</p> <div> </div> <p>Figure 83. Boot Loader Output</p> <p>A successful IPM platform installation process results in a user login prompt.</p>

Appendix M. 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.

Appendix N. Locate Product Documentation on the Oracle Help Center

Oracle Communications customer documentation is available on the web at the Oracle Help Center (OHC) site, <http://docs.oracle.com>. You do not have to register to access these documents. Viewing these files requires Adobe Acrobat Reader, which can be downloaded at <http://www.adobe.com>.

1. Access the Oracle Help Center site at <http://docs.oracle.com>.
2. Click Industries.
3. Under the Oracle Communications subheading, click the **Oracle Communications documentation** link. The Communications Documentation page appears. Most products covered by these documentation sets will appear under the headings “Network Session Delivery and Control Infrastructure” or “Platforms.”
4. Click on your Product and then the Release Number. A list of the entire documentation set for the selected product and release appears.
5. To download a file to your location, right-click the PDF link, select Save target as (or similar command based on your browser), and save to a local folder.