

**Oracle® Communications
Diameter Signal Router Full Address
Resolution**

SDS 8.4 Initial Installation and Configuration Guide

Release 8.4

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ORACLE®

Oracle® Communications Diameter Signal Router Full Address Resolution, SDS 8.4 Initial Installation and Configuration, Release 8.4.

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

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

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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 8.4 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 8.4 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, latest version (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.

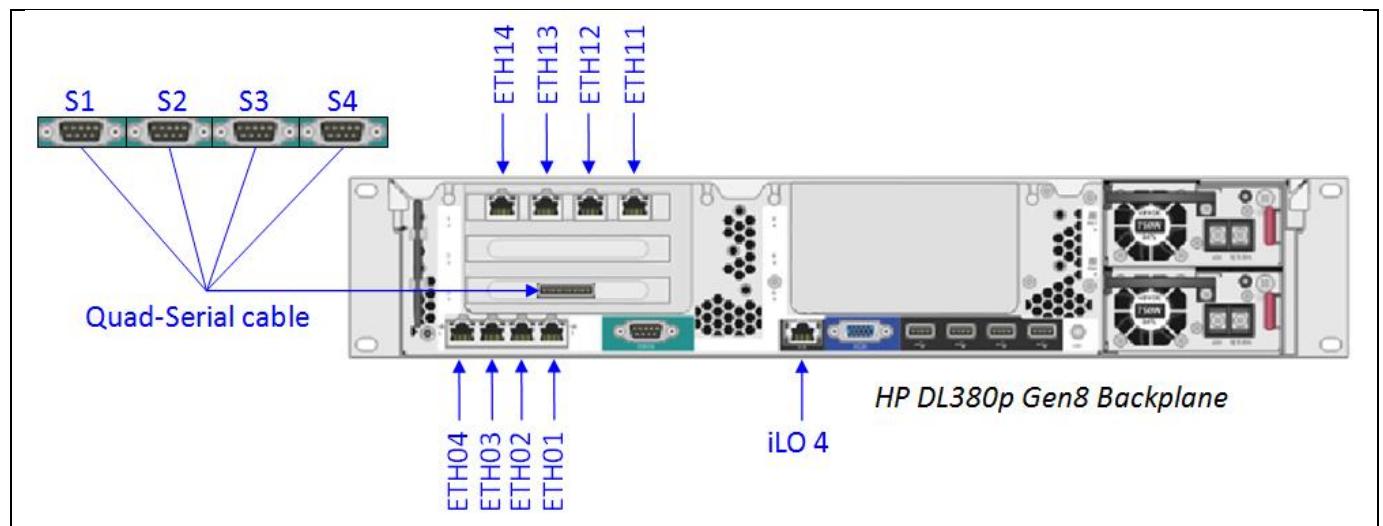


Figure 1 - HP DL380 Gen8, DC (Rear Panel)

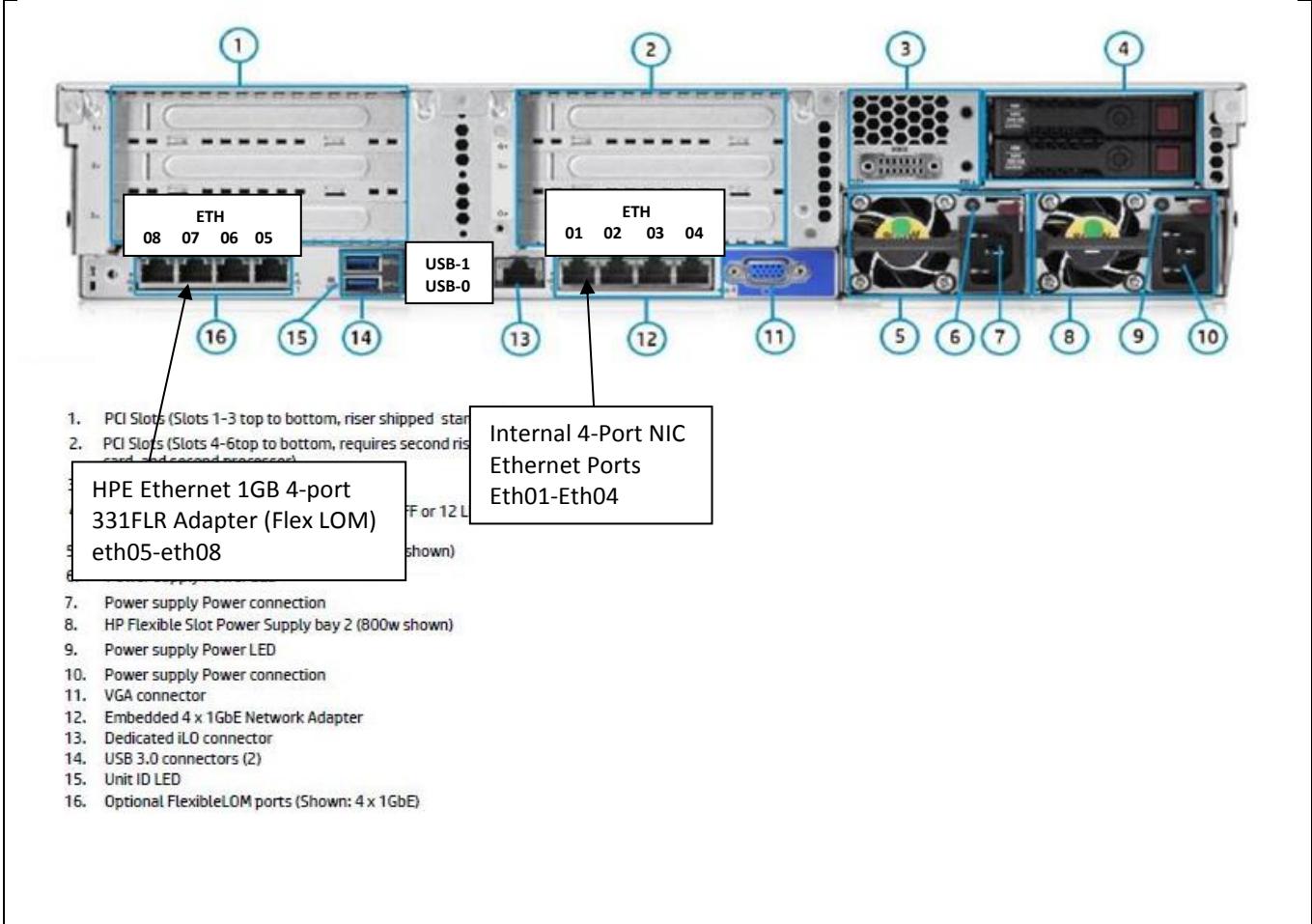


Figure 2 - HP DL380 (Gen9), DC (Rear Panel)

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: 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.</p>	<table border="0"> <tbody> <tr> <td><input type="checkbox"/></td><td>Method 1)</td><td>VGA Monitor and PS2 Keyboard.</td></tr> <tr> <td><input type="checkbox"/></td><td>Method 2)</td><td>Laptop +  KVM2USB switch. http://www.epiphan.com/products/frame-grabbers/kvm2usb/</td></tr> <tr> <td><input type="checkbox"/></td><td>Method 3)</td><td>iLO VGA Redirection Window, IE8 (or IE9 with Document Mode "IE8 Standards"), Ethernet cable. (See 0)</td></tr> <tr> <td><input type="checkbox"/></td><td>Method 4)</td><td>iLO access via SSH, terminal program, Ethernet cable.</td></tr> </tbody> </table>	<input type="checkbox"/>	Method 1)	VGA Monitor and PS2 Keyboard.	<input type="checkbox"/>	Method 2)	Laptop +  KVM2USB switch. http://www.epiphan.com/products/frame-grabbers/kvm2usb/	<input type="checkbox"/>	Method 3)	iLO VGA Redirection Window, IE8 (or IE9 with Document Mode "IE8 Standards"), Ethernet cable. (See 0)	<input type="checkbox"/>	Method 4)	iLO access via SSH, terminal program, Ethernet cable.
<input type="checkbox"/>	Method 1)	VGA Monitor and PS2 Keyboard.											
<input type="checkbox"/>	Method 2)	Laptop +  KVM2USB switch. http://www.epiphan.com/products/frame-grabbers/kvm2usb/											
<input type="checkbox"/>	Method 3)	iLO VGA Redirection Window, IE8 (or IE9 with Document Mode "IE8 Standards"), Ethernet cable. (See 0)											
<input type="checkbox"/>	Method 4)	iLO access via SSH, terminal program, Ethernet cable.											

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
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).		
Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.		
If this procedure fails, contact Appendix K My Oracle Support and ask for assistance.		
1 □	Configure RMS Server.	<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>
2 □	RMS Server: Verify/Upgrade Firmware	<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	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: Primary Site: <input type="checkbox"/> RMS-1: _____ <input type="checkbox"/> RMS-2: _____ <input type="checkbox"/> RMS-3: _____ <input type="checkbox"/> RMS-4: _____ <input type="checkbox"/> RMS-5: _____ <input type="checkbox"/> RMS-6: _____ <input type="checkbox"/> RMS-7: _____ <input type="checkbox"/> RMS-8: _____ <input type="checkbox"/> RMS-9: _____ <input type="checkbox"/> RMS-10: _____ Disaster Recover Site: (Optional) <input type="checkbox"/> RMS-1: _____ <input type="checkbox"/> RMS-2: _____ <input type="checkbox"/> RMS-3: _____ <input type="checkbox"/> RMS-4: _____ <input type="checkbox"/> RMS-5: _____ <input type="checkbox"/> RMS-6: _____ <input type="checkbox"/> RMS-7: _____ <input type="checkbox"/> RMS-8: _____ <input type="checkbox"/> RMS-9: _____ <input type="checkbox"/> RMS-10: _____
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)	17
2	Configuring SDS Servers A and B (1st SDS NOAM site only)	26
3	OAM Pairing (1st SDS NOAM site only)	48
4	Query Server Installation (All SDS NOAM sites)	66
5	OAM Installation for the DR SDS NOAM site	85
6	OAM Pairing for DR SDS NOAM site	102
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	206
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 \$



IF THE CORRECT DATE & TIME (IN GMT) ARE NOT SHOWN IN THE PREVIOUS STEP, THEN STOP THIS PROCEDURE AND PERFORM THE FOLLOWING STEPS:

- 1) Execute **Appendix J- CONFIGURE THE HP DL380 (GEN8 & GEN9) SERVER CMOS CLOCK/BIOS SETTINGS**
- 2) Restart **Procedure 1** beginning with **Step 1**.

IF THE CORRECT DATE & TIME (IN GMT) ARE SHOWN IN THE PREVIOUS STEP, THEN CONTINUE ON TO STEP 4 OF THIS PROCEDURE.

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 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.

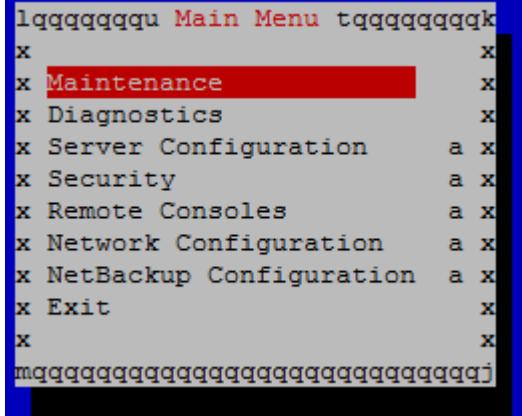
Procedure 1: Installing the SDS Application (All SDS NOAM sites)

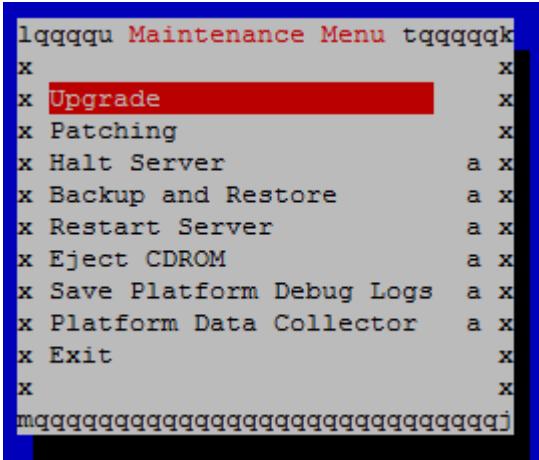
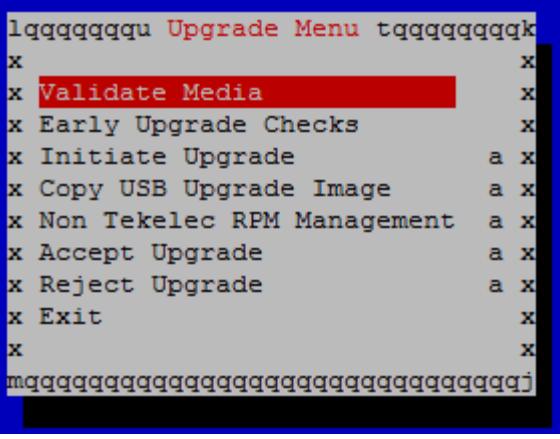
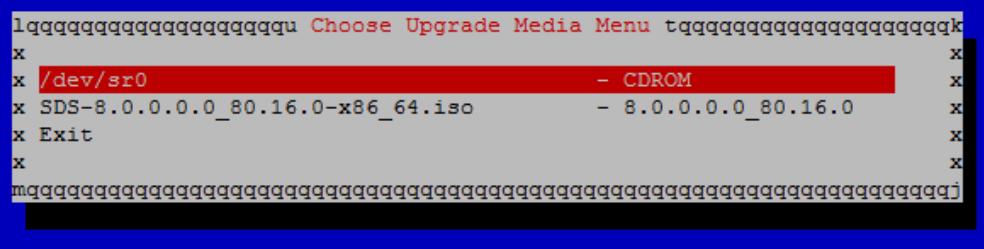
Step	Procedure	Result
6. <input type="checkbox"/>	Execute “ syscheck ” to verify the state of the server before Application install.	<p>\$ sudo syscheck</p> <p>Running modules in class hardware... OK</p> <p>Running modules in class disk... OK</p> <p>Running modules in class net... OK</p> <p>Running modules 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>
7. <input type="checkbox"/>	Execute verifyUpgrade command to verify health of the server before the application install.	<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>
8. <input type="checkbox"/>	Verify Hardware ID is ProLiant DL380 Gen8 or Gen9.	<p>\$ hardwareInfo grep Hardware</p> <p>Hardware ID: ProLiantDL380pGen8 - Or -</p> <p>Hardware ID: ProLiantDL380Gen9</p>
9. <input type="checkbox"/>	Place the USB drive containing the SDS Application software into the server's USB port.	 <p>Figure 3 - HP DL380 Gen8, Front Panel (USB Port)</p>  <p>Figure 4 - HP DL380 Gen9, Front Panel (USB Port)</p>

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

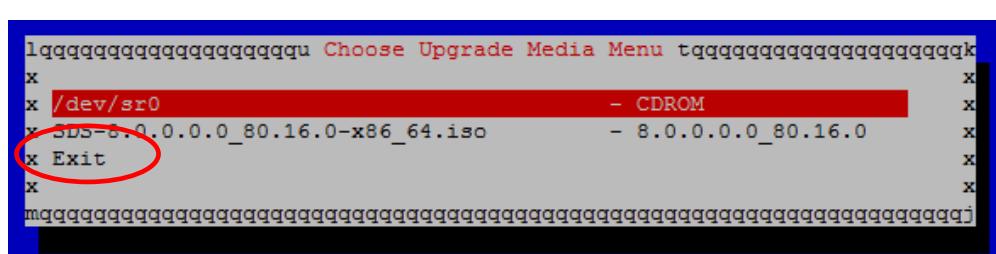
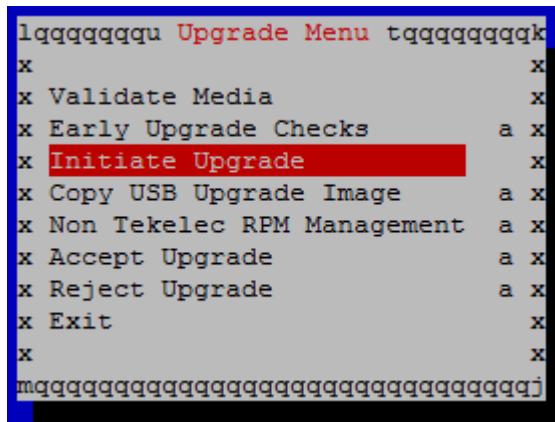
Step	Procedure	Result
10. <input type="checkbox"/>	Verify that the USB drive has been mounted under the /media directory.	\$ df grep sdb /dev/sdb1 2003076 8 2003068 1% /media/sdb1
11. <input type="checkbox"/>	Verify that the target release is present on the USB drive.	\$ ls /media/sdb1/ SDS- 8.4.0.0.0_84.9.0-x86_64.iso
12. <input type="checkbox"/>	Copy the target release to the server's hard disk under the /var/TKLC/upgrade directory.	\$ cp -p /media/sdb1/SDS-8.4.0.0.0_84.9.0-x86_64.iso /var/TKLC/upgrade/
13. <input type="checkbox"/>	Unmount the USB drive partition.	\$ sudo umount /media/sdb1 \$
14. <input type="checkbox"/>	Remove the USB drive from the server's front panel.	 Figure 3 - HP DL380 Gen8, Front Panel (USB Port)
		 Figure 4 - HP DL380 Gen9, Front Panel (USB Port)
15. <input type="checkbox"/>	Login to the “platcfg” utility.	\$ sudo su - platcfg

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

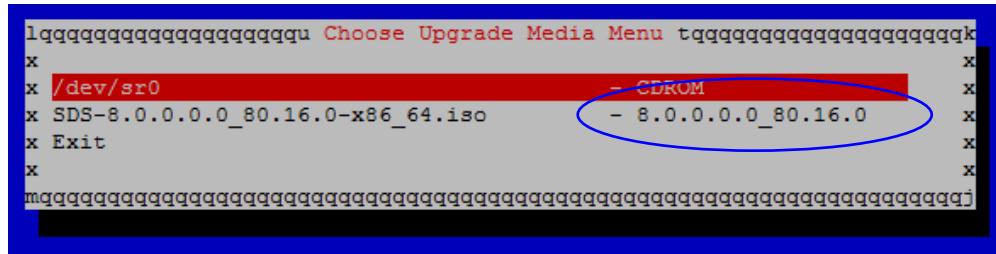
Step	Procedure	Result
16. <input type="checkbox"/>	From the “platcfg” Main Menu... Select Maintenance then press the <ENTER> key	 A screenshot of a terminal window showing the SDS platcfg Main Menu. The menu items are: Main Menu, Maintenance, Diagnostics, Server Configuration, Security, Remote Consoles, Network Configuration, NetBackup Configuration, and Exit. The 'Maintenance' option is highlighted with a red box. The terminal window has a blue border and a black background for the menu text.

<p>17.</p> <p><input type="checkbox"/></p> <p>From the “platcfg” Main Menu...</p> <p><input type="checkbox"/></p> <p>Select Upgrade then press the <ENTER> key</p> <p><input type="checkbox"/></p> <p>Select Validate then press the <ENTER> key</p> <p><input type="checkbox"/></p> <p>Select ISO then press the <ENTER> key</p> <p><input type="checkbox"/></p> <p>Screen will show ISO is Validated then press the ANY key.</p>	   <p>Validating cdrom...</p> <pre>##### #####</pre>
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Procedure 1: Installing the SDS Application (All SDS NOAM sites)

Step	Procedure	Result
<input type="checkbox"/>	Select Exit then press the <ENTER> key	<pre>##### ##### ##### ##### ##### UMVT Validate Utility v2.3.4, (c)Tekelec, May 2014 Validating /var/TKLC/upgrade/SDS- 8.4.0.0.0_84.9.0-x86_64.iso Date&Time: 2016-08-09 08:20:01 Volume ID: 8.4.0.0.0_84.9.0 Part Number: N/A Version: 8.4.0.0.0_84.9.0 Disc Label: DSR Disc description: DSR The media validation is complete, the result is: PASS CDROM is Valid</pre> <p>PRESS ANY KEY TO RETURN TO THE PLATCFG MENU.</p> 
18. <input type="checkbox"/>	From the “ platcfg ” Main Menu... Select Initiate Upgrade then press the <ENTER> key	

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

Step	Procedure	Result
19. <input type="checkbox"/>	Verify that SDS application release shown matches the target release. Press the <ENTER> key to start the SDS application install	
20. <input type="checkbox"/>	Output similar to that shown on the right may be observed as the SDS application install progresses.	<pre>Determining if we should upgrade... Install product is TPD 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: 5.0.0-72.28.0 Target platform version: 5.0.0-72.28.0 Minimum supported version: 4.2.0-70.60.0 Upgrade from same release as current is supported Evaluate if there are any packages to upgrade Evaluating if there are packages to upgrade...</pre>
21. <input type="checkbox"/>	Output similar to that shown on the right may be observed at the completion of the Application install.	<pre>Executing da01_sds_app_enable.sh... da01_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 10 seconds</pre>
22. <input type="checkbox"/>	After the server has completed reboot, log into the HP server as the "admusr" user.	<pre>login: admusr Using keyboard-interactive authentication. Password: <admusr_password></pre>
23. <input type="checkbox"/>	Verify that the output contains the line shown to the right indicating a successful installation of SDS application software.	<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
24. <input type="checkbox"/>	Execute verifyUpgrade command to verify status of upgrade. Verify that SDS application release shown matches the target release.	\$ sudo verifyUpgrade 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) 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 \$ rpm -qa grep sds TKLCsds-8.4.0.0.0_84.9.0-x86_64
25. <input type="checkbox"/>	Accept upgrade to the Application Software.	\$ sudo /var/TKLC/backout/accept Called with options: --accept Loading Upgrade::Backout::RPM Accepting Upgrade Setting POST_UPGRADE_ACTION to ACCEPT in upgrade info. Cleaning backout directory. Clearing Upgrade Accept/Reject alarm. Cleaning message from MOTD. Cleaning up RPM config backup files... Checking / Checking /boot Checking /tmp Checking /usr Checking /var Checking /var/TKLC/rundb Starting cleanup of RCS repository. INFO: Removing '/var/lib/prelink/force' from RCS repository INFO: Removing '/etc/my.cnf' from RCS repository
26. <input type="checkbox"/>	Put the server in trusted time mode	\$ tw.setdate -trusted Current time: 10/22/2014 16:25:07.869
27. <input type="checkbox"/>	Exit from the command line to return the server console to the login prompt.	\$ exit
28. <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.

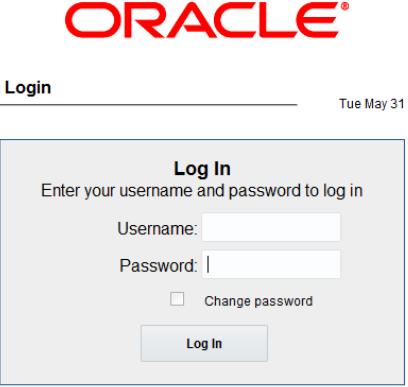
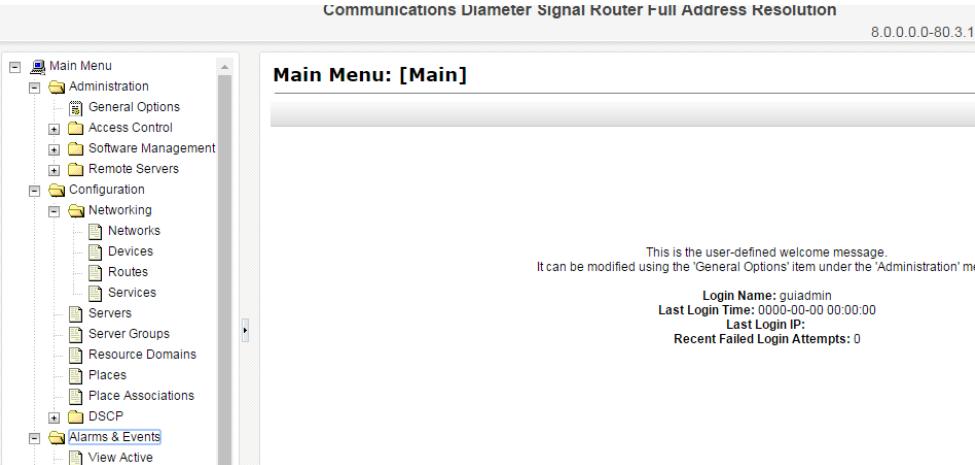
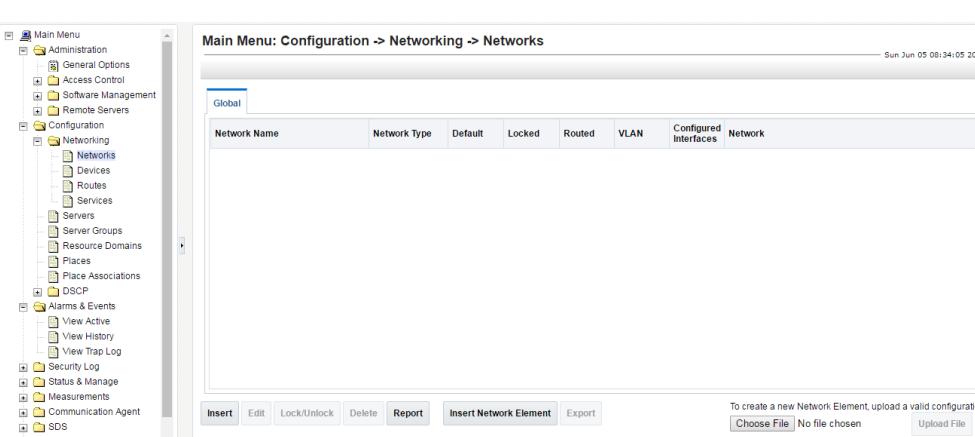
This procedure requires that the user connects to the SDS GUI prior to configuring the first SDS server. This can be done either by one of two procedures:

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.

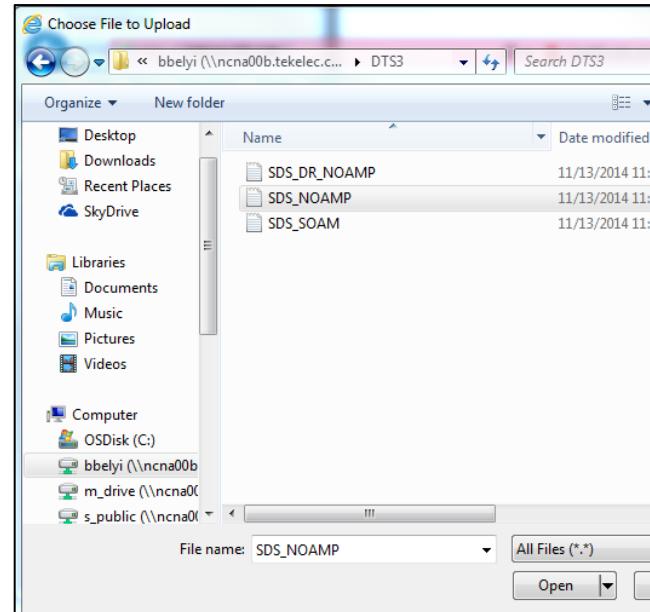
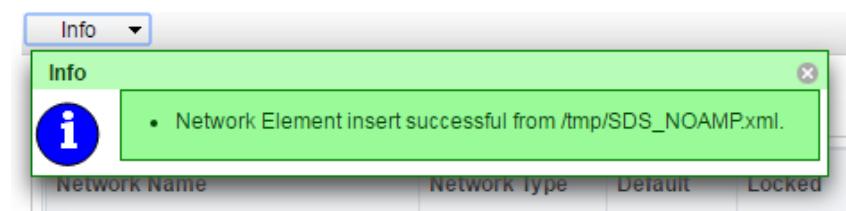
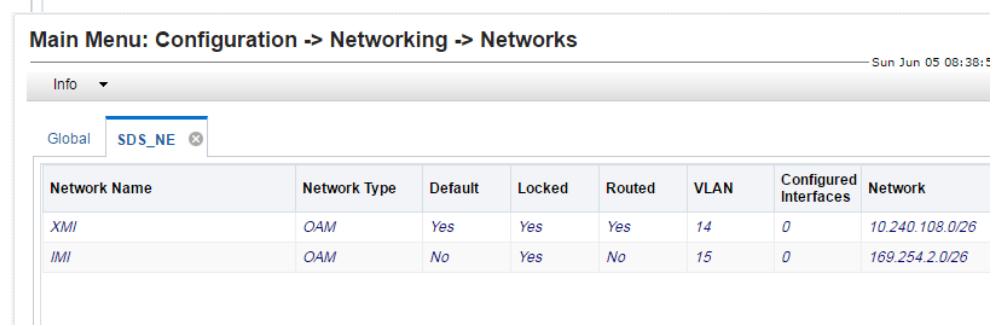
Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result
1. <input type="checkbox"/>	SDS NOAM A: Connect to the SDS GUI.	<ul style="list-style-type: none">• Execute Appendix C. Establishing a Local Connection for Accessing the SDS GUI
2. <input type="checkbox"/>	SDS NOAM A: Launch an approved web browser and connect to the SDS NOAM A IP address using Appendix B NOTE: If presented with the “security certificate” warning screen shown to the right, choose the following option: “Continue to this website (not recommended)”.	 <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 server.</p> <p>Security certificate problems may indicate an attempt to fool you or intercept your information.</p> <p>We recommend that you close this webpage and do not continue to this website.</p> <p><input checked="" type="checkbox"/> Click here to close this webpage.</p> <p><input type="checkbox"/> Continue to this website (not recommended).</p> <p><input type="checkbox"/> More information</p>

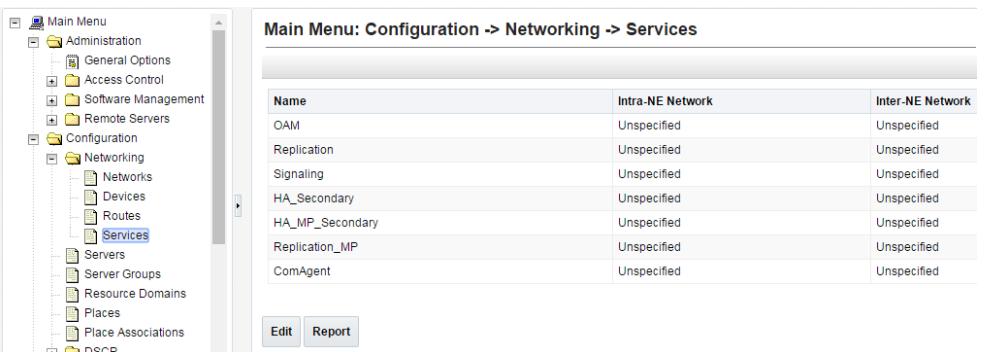
Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result																
3.	<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>ORACLE®</p> <p>Oracle System Login</p> <p>Tue May 31 14:34:34 2016 EDT</p> <p>Log In</p> <p>Welcome to the Oracle System Login.</p> <p>This application is designed to work with most modern HTML5 compliant browsers and uses both JavaScript and cookies. Please refer to the Oracle Software Web Browser Support Policy for details.</p> <p>Unauthorized access is prohibited.</p> <p>Oracle and Java are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.</p> <p>Copyright © 2010, 2016, Oracle and/or its affiliates. All rights reserved.</p>																
4.	<p>SDS NOAM A:</p> <p>The user should be presented the SDS Main Menu as shown on the right.</p>	 <p>Communications Diameter Signal Router Full Address Resolution</p> <p>8.0.0.0-80.3.1</p> <p>Main Menu: [Main]</p> <p>This is the user-defined welcome message. It can be modified using the 'General Options' item under the 'Administration' menu.</p> <p>Login Name: guiaadmin Last Login Time: 0000-00-00 00:00:00 Last Login IP: 10.0.0.1 Recent Failed Login Attempts: 0</p>																
5.	<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>	 <p>Main Menu: Configuration -> Networking -> Networks</p> <p>Global</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></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>Insert Edit Lock/Unlock Delete Report Insert Network Element Export</p> <p>To create a new Network Element, upload a valid configuration file: Choose File No file chosen Upload File</p>	Network Name	Network Type	Default	Locked	Routed	VLAN	Configured Interfaces	Network								
Network Name	Network Type	Default	Locked	Routed	VLAN	Configured Interfaces	Network											

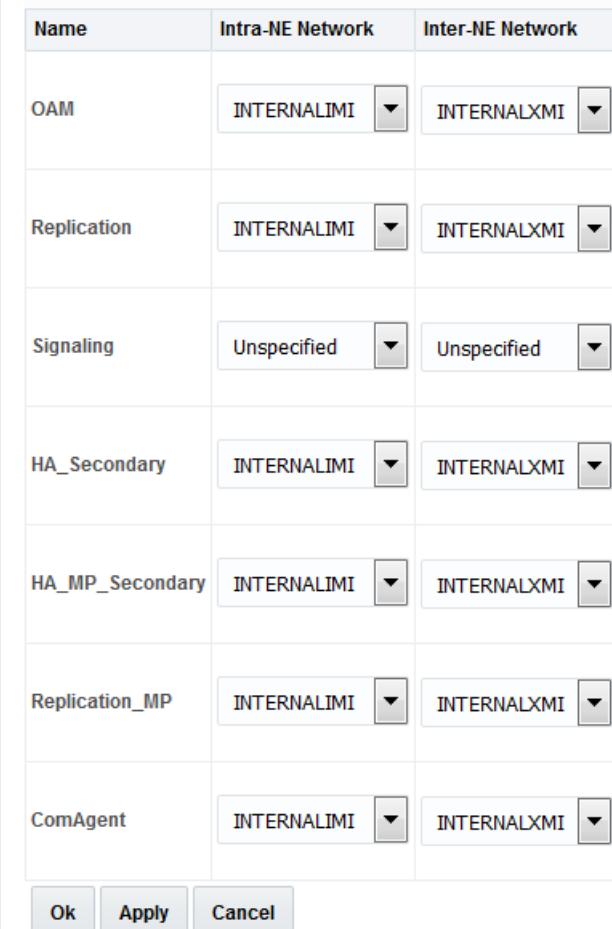
Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result																							
6.	<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>																								
7.	<p>SDS NOAM A:</p> <p>Select the “Upload File” dialogue button (bottom left corner of screen).</p>																								
8.	<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>	<p>Main Menu: Configuration -> Networking -> Networks</p>  <p>Main Menu: Configuration -> Networking -> Networks</p>  <table border="1"> <thead> <tr> <th>Network Name</th> <th>Network Type</th> <th>Default</th> <th>Locked</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	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
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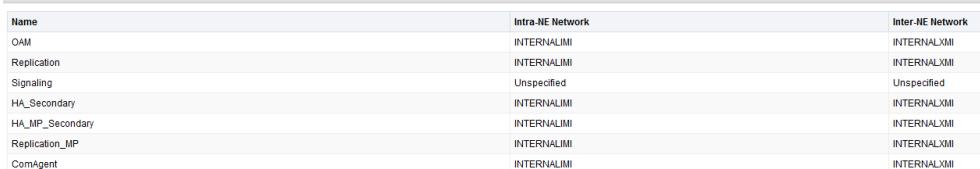
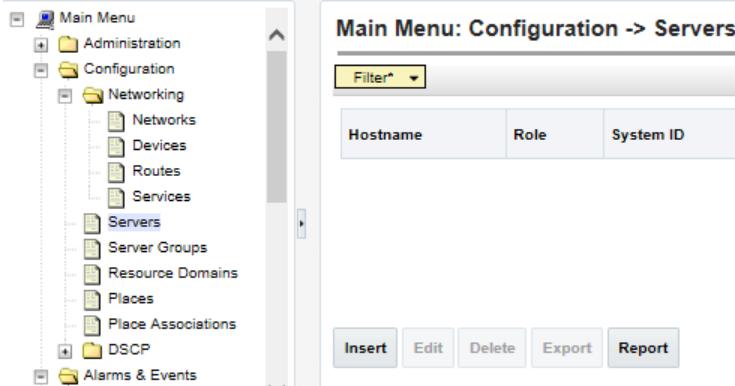
Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result																								
9. <input type="checkbox"/>	<p>SDS NOAM A:</p> <p>1) Select...</p> <p>Main Menu → Configuration ->Networking → Services ...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>OAM</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_MP_Secondary</td> <td>Unspecified</td> <td>Unspecified</td> </tr> <tr> <td>Replication_MP</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	OAM	Unspecified	Unspecified	Replication	Unspecified	Unspecified	Signaling	Unspecified	Unspecified	HA_Secondary	Unspecified	Unspecified	HA_MP_Secondary	Unspecified	Unspecified	Replication_MP	Unspecified	Unspecified	ComAgent	Unspecified	Unspecified
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Replication_MP	Unspecified	Unspecified																								
ComAgent	Unspecified	Unspecified																								

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

Step	Procedure	Result
10.	<p>SDS NOAM A:</p> <p>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.</p> <p>2) Select the “Apply” dialogue button.</p> <p>3) Select “OK” in new pop up GUI to change the effect,</p>	<p>Main Menu: Configuration -> Networking -> Services [Edit]</p>  <p>F 100.65.33.69 says:</p> <p>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</p> <p>OK Cancel</p>

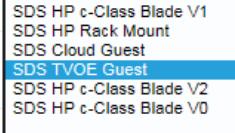
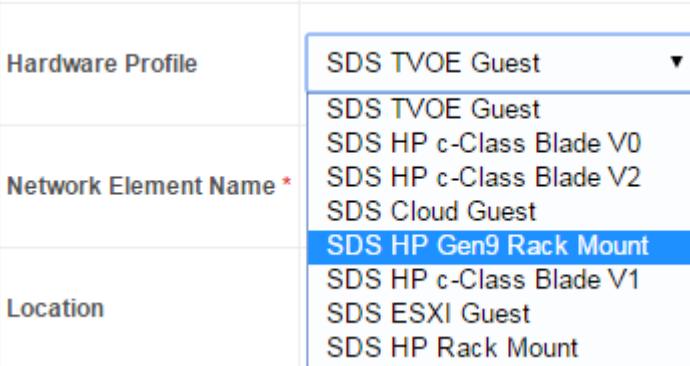
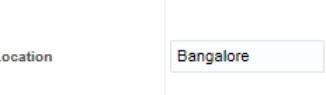
Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result																								
11. <input type="checkbox"/>	SDS NOAM A: The user will be presented with the “Services” configuration screen as shown on the right	Main Menu: Configuration > Networking > Services  <table border="1"> <thead> <tr> <th>Name</th> <th>Intra-NE Network</th> <th>Inter-NE Network</th> </tr> </thead> <tbody> <tr> <td>OAM</td> <td>INTERNALIMI</td> <td>INTERNALXMI</td> </tr> <tr> <td>Replication</td> <td>INTERNALIMI</td> <td>INTERNALXMI</td> </tr> <tr> <td>Signaling</td> <td>Unspecified</td> <td>Unspecified</td> </tr> <tr> <td>HA_Secondary</td> <td>INTERNALIMI</td> <td>INTERNALXMI</td> </tr> <tr> <td>HA_MP_Secondary</td> <td>INTERNALIMI</td> <td>INTERNALXMI</td> </tr> <tr> <td>Replication_MP</td> <td>INTERNALIMI</td> <td>INTERNALXMI</td> </tr> <tr> <td>ComAgent</td> <td>INTERNALIMI</td> <td>INTERNALXMI</td> </tr> </tbody> </table>	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
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HA_MP_Secondary	INTERNALIMI	INTERNALXMI																								
Replication_MP	INTERNALIMI	INTERNALXMI																								
ComAgent	INTERNALIMI	INTERNALXMI																								
12. <input type="checkbox"/>	SDS NOAM A: 1) Select... <u>Main Menu</u> → Configuration → Servers ...as shown on the right. 2) Select the “Insert” dialogue button.	 Note: This step thru the last step of this procedure need to be done for both servers SDS NOAM A and SDS NOAM B.																								

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

Step	Procedure	Result																	
13.	SDS NOAM A: <input type="checkbox"/> The user is now presented with the “Adding a new server” configuration screen.	Adding a new server <div style="border: 1px solid #ccc; padding: 10px;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Attribute</th> <th style="width: 85%;">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="▼"/></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="▼"/></td> </tr> <tr> <td>Network Element Name *</td> <td>- Unassigned - <input type="button" value="▼"/></td> </tr> <tr> <td>Location</td> <td><input type="text"/></td> </tr> <tr> <td colspan="2" style="text-align: center;"> <input type="button" value="Ok"/> <input type="button" value="Apply"/> <input type="button" value="Cancel"/> </td> </tr> </tbody> </table> </div>		Attribute	Value	Hostname *	<input type="text"/>	Role *	- Select Role - <input type="button" value="▼"/>	System ID	<input type="text"/>	Hardware Profile	SDS HP c-Class Blade V1 <input type="button" value="▼"/>	Network Element Name *	- Unassigned - <input type="button" value="▼"/>	Location	<input type="text"/>	<input type="button" value="Ok"/> <input type="button" value="Apply"/> <input type="button" value="Cancel"/>	
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14.	SDS NOAM A: <input type="checkbox"/> Input the assigned “hostname” for the SDS NOAM (A or B).	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Attribute</th> <th style="width: 85%;">Value</th> <th style="width: 10%;">Description</th> </tr> </thead> <tbody> <tr> <td>Hostname *</td> <td><input type="text" value="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 *	<input type="text" value="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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15.	SDS NOAM A: <input type="checkbox"/> Select “NETWORK OAM&P” for the server “Role” from the pull-down menu.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="width: 15%;">Role *</td> <td style="width: 85%;"> <div style="border: 1px solid #ccc; padding: 2px; display: inline-block;"> - Select Role - NETWORK OAM&P SYSTEM OAM MP QUERY SERVER </div> </td> <td style="width: 10%;">Select the function of the server [A value is required.]</td> </tr> </tbody> </table>		Role *	<div style="border: 1px solid #ccc; padding: 2px; display: inline-block;"> - Select Role - NETWORK OAM&P SYSTEM OAM MP QUERY SERVER </div>	Select the function of the server [A value is required.]													
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16.	SDS NOAM A: <input type="checkbox"/> Input the assigned hostname again as the “System ID” for the SDS NOAM (A or B).	<table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="width: 15%;">System ID</td> <td style="width: 85%; text-align: right;"><input type="text" value="sds-no-a"/> <input type="button" value="X"/></td> <td style="width: 10%;">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	<input type="text" value="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.]													
System ID	<input type="text" value="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.]																	

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

Step	Procedure	Result
17.	<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>Valid value is any text string.]</p> <p>Hardware profile of the server</p> <p>For Gen9 Select “SDS HP Gen9 Rack Mount” from the Hardware Profile pull-down menu.</p> 
18.	<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>
19.	<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>

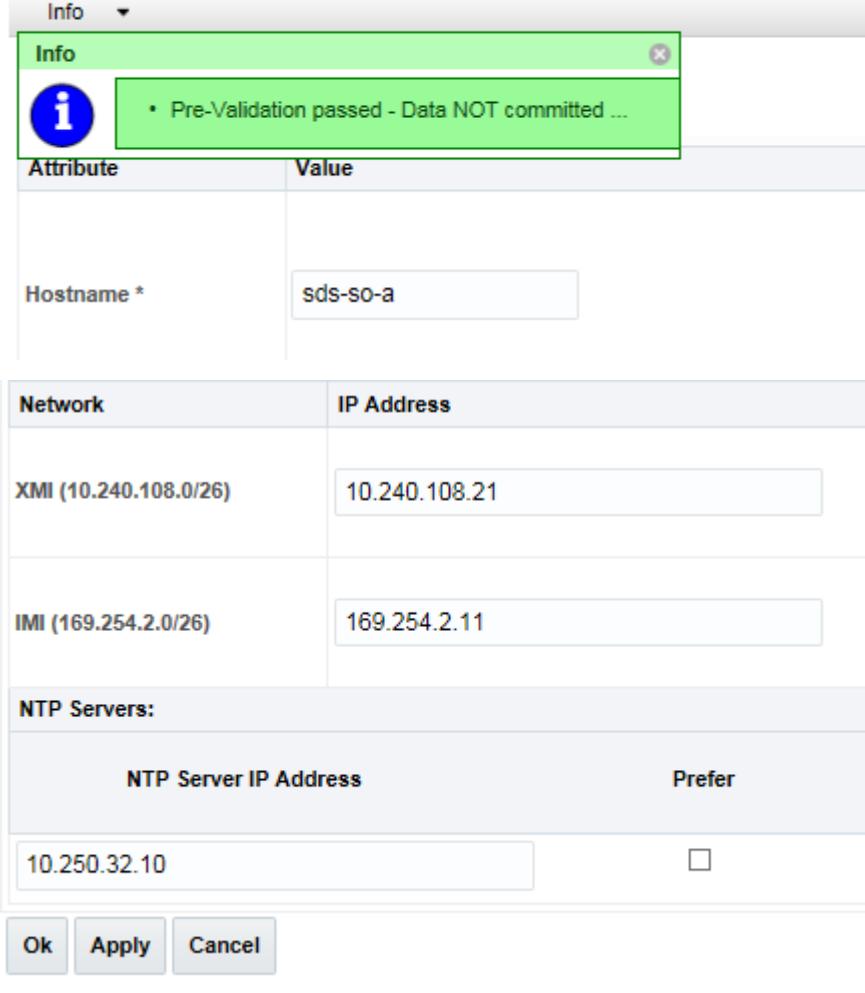
Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result																																	
20.	<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>	<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 checked="" 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>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></td> </tr> <tr> <td>IMI</td> <td>169.254.100.11</td> <td></td> </tr> <tr> <td rowspan="2">SDS-B</td> <td>MgmtVLAN</td> <td>169.254.1.12</td> <td rowspan="2">bond0</td> <td></td> </tr> <tr> <td>IMI</td> <td>169.254.100.12</td> <td></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 checked="" 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		IMI	169.254.100.11		SDS-B	MgmtVLAN	169.254.1.12	bond0		IMI	169.254.100.12	
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	IMI	169.254.100.12																																	
21.	<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>Network</th> <th>Interface</th> </tr> </thead> <tbody> <tr> <td>INTERNALXMI (10.240.20.0/22)</td> <td>10.240.20.2 <input type="checkbox"/> bond1 <input checked="" type="checkbox"/> VLAN (3)</td> </tr> </tbody> </table> <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 rowspan="2">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!!!</p> <p><i>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.</i></p>	Network	Interface	INTERNALXMI (10.240.20.0/22)	10.240.20.2 <input type="checkbox"/> bond1 <input checked="" type="checkbox"/> VLAN (3)	SDS Server (Primary NOAM)	Network	VLAN tagging (on XMI network)	Interface	VLAN Checkbox	SDS NOAM Server (A or B)	XMI	No	bond1		Yes	bond0																	
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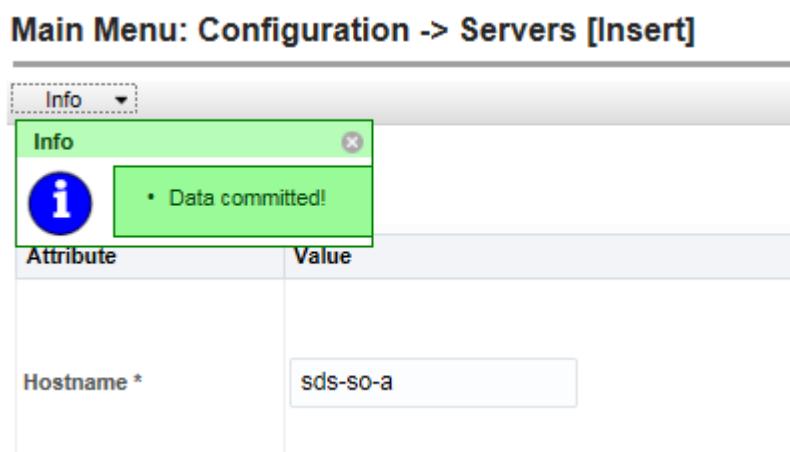
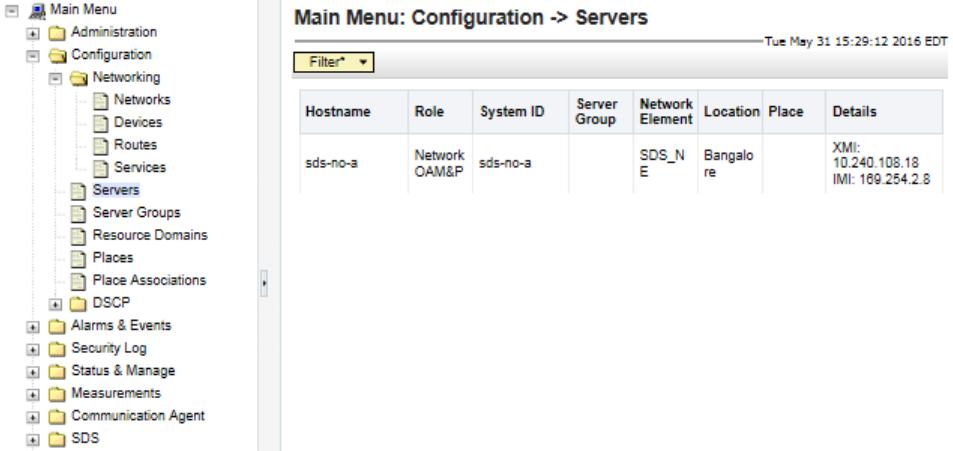
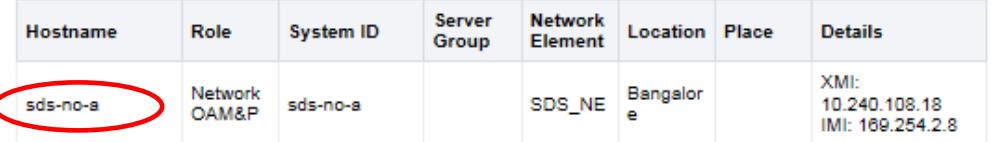
Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result																		
22.	<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>	<p>NTP Servers:</p> <table border="1"> <thead> <tr> <th>NTP Server IP Address</th> <th>Prefer</th> <th>Add</th> </tr> </thead> <tbody> <tr> <td>10.240.21.191</td> <td><input 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>Add</th> </tr> </thead> <tbody> <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>	NTP Server IP Address	Prefer	Add	10.240.21.191	<input type="checkbox"/>	Remove	NTP Server IP Address	Prefer	Add	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	Add																		
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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																		

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

Step	Procedure	Result
23. <input type="checkbox"/>	SDS NOAM A: 1) The user should be presented with a banner information message stating “ Pre-Validation passed ”. 2) Click the “ Apply ” dialogue button.	<p>Main Menu: Configuration -> Servers [Insert]</p> 

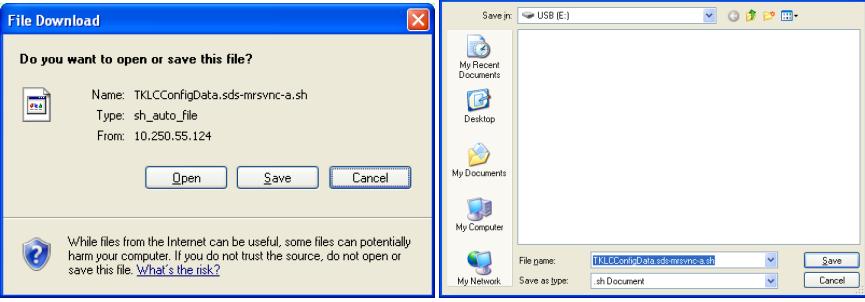
Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result
24.	SDS NOAM A: <input type="checkbox"/> 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.	 Hostname * sds-so-a
25.	SDS NOAM A: <input type="checkbox"/> Select... <u>Main Menu</u> → Configuration → Servers ...as shown on the right.	 Main Menu: Main Menu Administration Configuration Networking Networks Devices Routes Services Servers Server Groups Resource Domains Places Place Associations DSCH Alarms & Events Security Log Status & Manage Measurements Communication Agent SDS
26.	SDS NOAM A: <input type="checkbox"/> The “ Configuration → Servers ” screen should now show the newly added SDS Server in the list.	 Hostname sds-no-a

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

Step	Procedure	Result																								
27.	<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>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>XMI: 10.240.108.18</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>IMI: 109.254.2.8</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		XMI: 10.240.108.18								IMI: 109.254.2.8
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: 109.254.2.8																			
28.	<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: This step can be skipped for SDS Server A because the file should already exist.</p>	<p>Main Menu: Configuration -> Servers</p> <p>Filter*</p> <p>Info</p> <p>Hostname: sds-no-a</p> <p>Info</p> <p>i Exported server data in TKLCConfigData.sds-no-a.sh may be downloaded</p> <p>Note: You may be required to click the Info tab to display the Info banner shown here.</p>																								

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

Step	Procedure	Result
29. <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: <i>This step can be skipped for SDS Server A because the file should already exist.</i></p>	
30. <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>Access the server console.</p> <p>NOTE: <i>This step can be skipped for SDS Server A because the file should already exist.</i></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>
31. <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: <i>This step can be skipped for SDS Server A because the file should already exist.</i></p>	<p>login: admusr Using keyboard-interactive authentication. Password: <admusr_password></p>

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

Step	Procedure	Result
32. <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>
33. <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>	<p>\$ sd 3:0:0:0: [sdb] Assuming drive cache: write through sd 3:0:0:0: [sdb] Assuming drive cache: write through <ENTER></p> <p>NOTE: <i>Press the <ENTER> key to return to the command prompt.</i></p>
34. <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
35. <input type="checkbox"/>	SDS Server NOAM A or B: Copy the configuration file to the SDS server NOTE: This step can be skipped for SDS Server A because the file should already exist.	<code>\$ sudo cp -p /media/sdb1/TKLCConfigData.sds-mrsvnc-a.sh /var/TKLC/db/filemgmt/</code> NOTE: If Appendix C was used to create this interface, un-configure the interface before copying this file.
36. <input type="checkbox"/>	Unmount the USB drive partition. NOTE: This step can be skipped for SDS Server A because the file should already exist.	<code>\$ sudo umount /media/sdb1</code> <code>\$</code>
37. <input type="checkbox"/>	SDS Server NOAM A or B: 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.	Example: TKLCConfigData<.server_hostname>.sh → will translate to →TKLCConfigData.sh <code>\$ sudo cp -p /var/TKLC/db/filemgmt/TKLCConfigData.sds-mrsvnc-a.sh /var/tmp/TKLCConfigData.sh</code> NOTE: The server will poll the /var/tmp directory for the presence of the configuration file and automatically execute it when found.
38. <input type="checkbox"/>	SDS Server NOAM A or B: After the script completes, a broadcast message will be sent to the terminal.	*** NO OUTPUT FOR ≈ 3-20 MINUTES *** 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. NOTE: The user should be aware that the time to complete this step varies by server and may take 3 ...20 minutes to complete.

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

Step	Procedure	Result
39. <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>
40. <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>
41.	<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>
42. <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: 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.</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>
43. <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
44. <input type="checkbox"/>	SDS Server NOAM A or B: Wait ~9 minutes Output similar to that shown on the right may be observed as the server initiates a reboot.	<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>
45. <input type="checkbox"/>	SDS Server NOAM A or B: After the server has completed reboot, log into the server as the "admusr" user.	login: admusr Using keyboard-interactive authentication. Password: <admusr_password>
46. <input type="checkbox"/>	SDS Server NOAM A or B: 1) Verify that the IMI IP address and the bond VLAN configuration input in Step 20 has been correctly applied. 2) Verify that the XMI IP address and the bond configuration input in Step 21 has been correctly applied. 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.	<pre>\$ ifconfig grep in 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:10.250.65.124 Bcast:10.250.65.255 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
47. <input type="checkbox"/>	SDS Server NOAM A or B: Use the “ ntpq ” command to verify that the server has connectivity to the assigned Primary and Secondary NTP server(s).	\$ 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



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

- 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.

48. <input type="checkbox"/>	SDS Server NOAM A or B: Execute a “ syscheck ” to verify the current health of the server.	\$ 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/TKLC/log/syscheck/fail_log
49. <input type="checkbox"/>	SDS Server NOAM A or B: Exit to return to the login prompt.	\$ exit
50. <input type="checkbox"/>		<ul style="list-style-type: none"> • Configure SDS Server B by repeating steps 13 - 50 of this procedure.



IF AGGREGATION SWITCHES ARE INSTALLED AND 4948E-F SWITCH CONFIGURATION HAS NOT BEEN COMPLETED PRIOR TO THIS STEP, STOP AND EXECUTE THE FOLLOWING PROCEDURES:

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

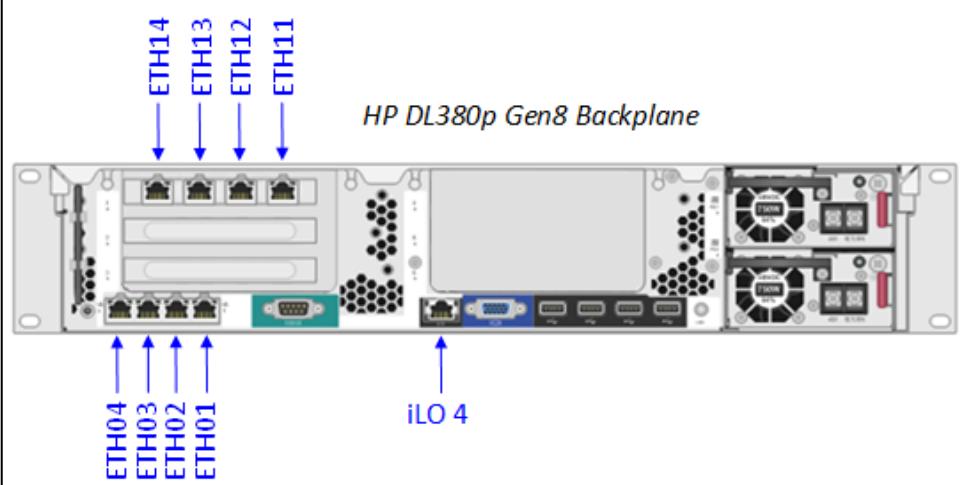
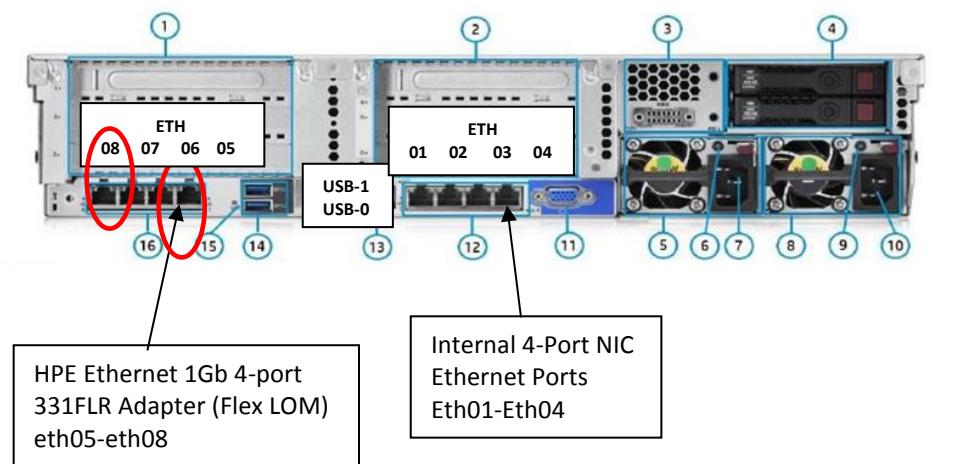
Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result
51. <input type="checkbox"/>	SDS Server NOAM A: From SDS Server NOAM A , “ping” the IMI IP address configured for on SDS Server B .	\$ 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
52. <input type="checkbox"/>	SDS Server NOAM A: From SDS Server NOAM A , “ping” the XMI IP address configured for on SDS Server B .	\$ 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
53.	SDS Server NOAM A: Use “ping” to verify that SDS Server NOAM A can reach the configured XMI Gateway address .	\$ 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

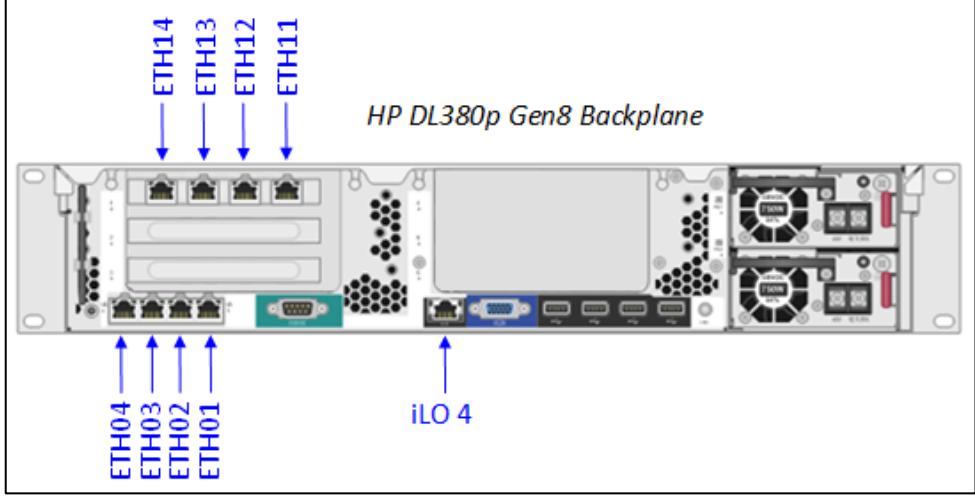
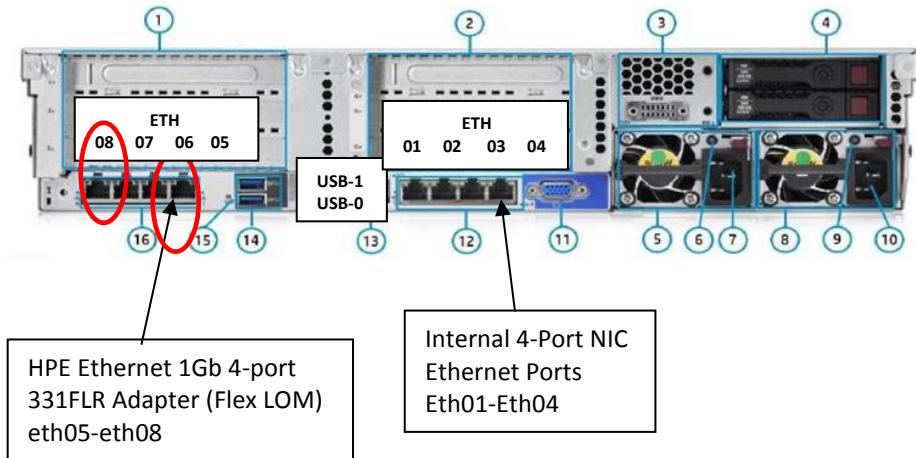
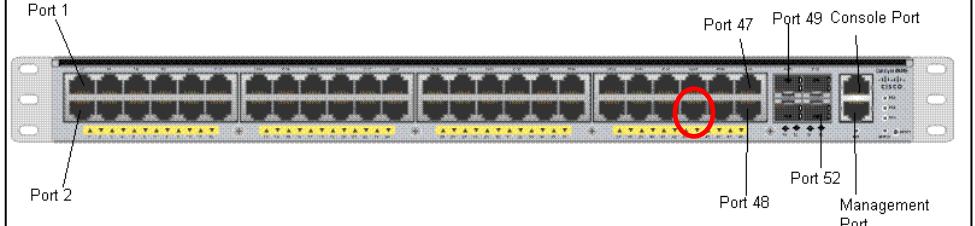
Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result
54.	SDS Server B: Use “ping” to verify that SDS Server B can reach the configured XMI Gateway address.	\$ 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

Note: The following two steps should be used only if referring Appendix B, else skip to next step

55.	SDS Server NOAM A: <input type="checkbox"/> For Gen8: Disconnect the laptop from the Server NOAM A , eth14 Ethernet port. <input type="checkbox"/> For Gen9: Disconnect the laptop from the Server NOAM A , eth08 Ethernet port.	 <p>HP DL380p Gen8 Backplane</p> <p>Figure 5 - HP DL380 Gen8, Rear Panel (Ethernet)</p>  <p>Figure 6 - HP DL380 (Gen9), DC (Rear Panel)</p>
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Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result
56.	<p>SDS Server NOAM A:</p> <p>For Gen8: Disconnect the laptop from the Server NOAM A, eth14 Ethernet port.</p>	 <p>HP DL380p Gen8 Backplane</p> <p>Diagram illustrating the rear panel of an HP DL380p Gen8 server. The top row shows 14 Ethernet ports labeled ETH14, ETH13, ETH12, ETH11, and ETH10 from top to bottom. The bottom row shows ports labeled ETH04, ETH03, ETH02, and ETH01 from top to bottom. An iLO 4 port is located on the right side. The backplane itself is shown in the center.</p>
	<p>For Gen9: Disconnect the laptop from the Server NOAM A, eth08 Ethernet port.</p>	 <p>Figure 8 - HP DL380 (Gen9), DC (Rear Panel)</p> <p>Diagram illustrating the rear panel of an HP DL380 (Gen9) server. The panel has 16 numbered ports (1-16). Port 16 is circled in red and points to the HPE Ethernet 1Gb 4-port 331FLR Adapter (Flex LOM), which includes ports eth05-eth08. Port 13 is circled in blue and points to the Internal 4-Port NIC Ethernet Ports Eth01-Eth04. Other ports are labeled 1-12 and 14-15.</p>
57.	<p>switch1A:</p> <p>Connect the laptop to Port 44 of switch1A (bottom switch).</p>	 <p>Figure 9 - Cisco 4948E-F Switch (Maintenance Access Port)</p> <p>Diagram illustrating the rear panel of a Cisco 4948E-F switch. The panel has 52 numbered ports (1-52). Port 47 is labeled "Port 47". Port 49 is labeled "Port 49 Console Port". Port 52 is labeled "Management Port". Port 2 is labeled "Port 2". A red circle highlights Port 44.</p>

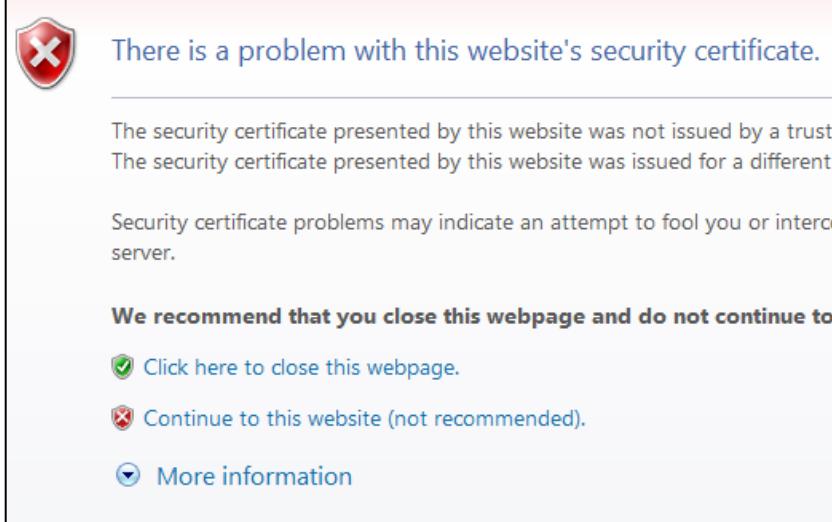
Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

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

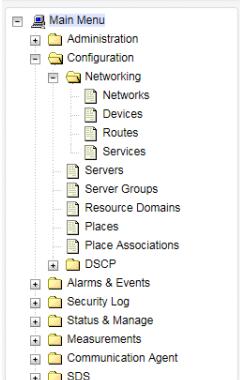
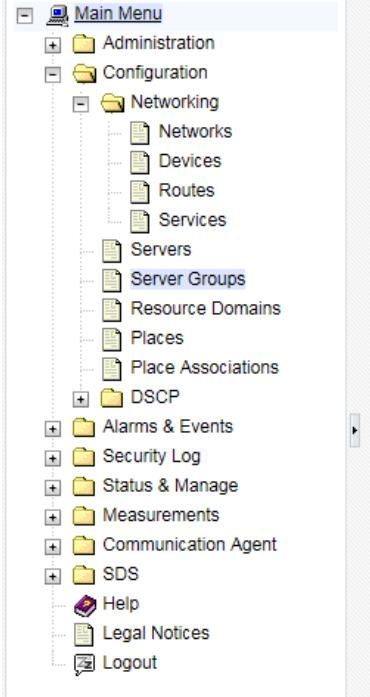
5.2 OAM Pairing (1st SDS NOAM site only)

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.

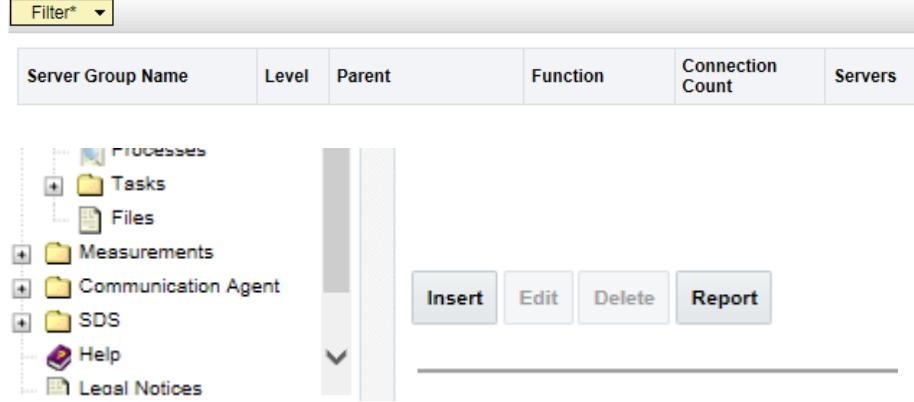
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result
1.	<p>SDS Server NOAM A:</p> <p>Launch an approved web browser and connect to the SDS Server NOAM A IP XMI address</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>	
2.	<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			
3.	SDS Server NOAM A: The user should be presented the SDS Main Menu as shown on the right.	 <p>Communications Diameter Signal Router Full Address Resolution 8.0.0.0-80.3.1</p> <p>Main Menu: [Main]</p> <p>This is the user-defined welcome message. It can be modified using the 'General Options' item under the 'Administ...' menu.</p> <p>Login Name: guadmin Last Login Time: 0000-00-00 00:00:00 Last Login IP: Recent Failed Login Attempts: 0</p>			
4.	SDS Server NOAM A: Select... <u>Main Menu</u> → Configuration → Server Groups ...as shown on the right.	 <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> </tr> </thead> </table>	Server Group Name	Level	Parent
Server Group Name	Level	Parent			

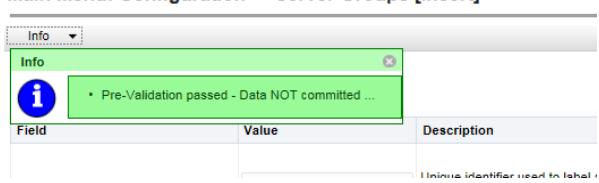
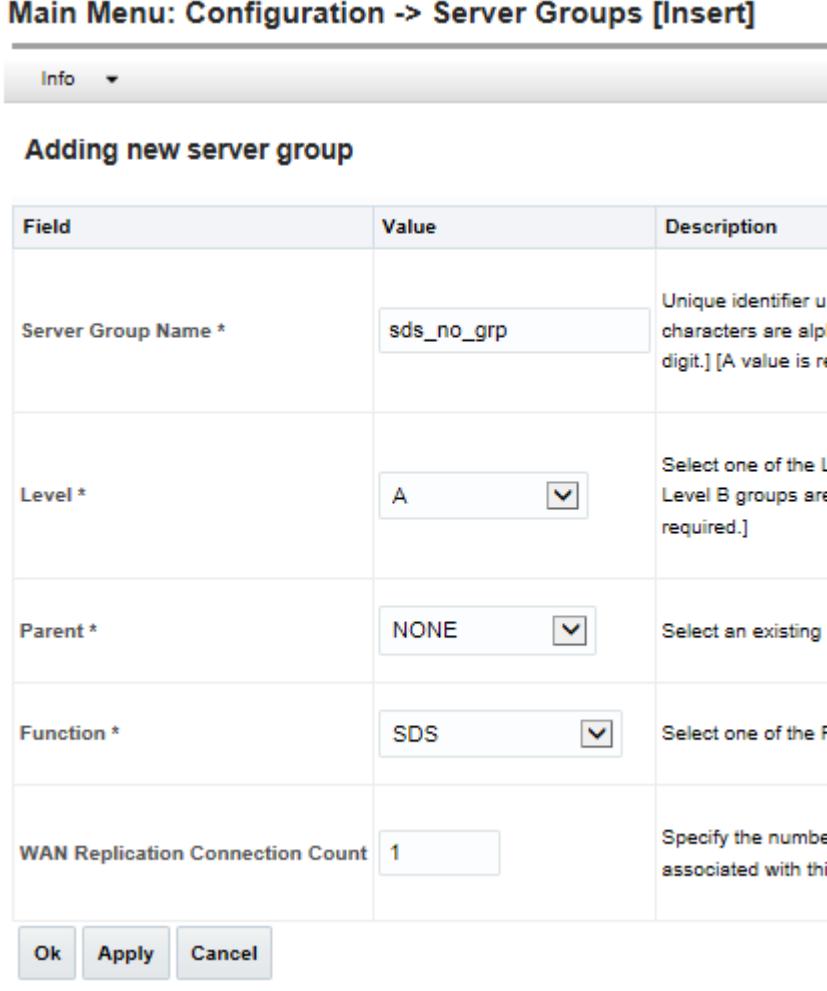
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result
5.	<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>The screenshot shows the 'Server Groups' configuration screen. At the top, there is a 'Filter*' dropdown. Below it is a table with columns: 'Server Group Name', 'Level', 'Parent', 'Function', 'Connection Count', and 'Servers'. To the left of the table is a tree view with nodes: Processes, Tasks, Files, Measurements, Communication Agent, SDS, Help, and Legal Notices. On the right side of the table are buttons for 'Insert', 'Edit', 'Delete', and 'Report'. A vertical scroll bar is visible on the right side of the tree view.</p> <p>NOTE: The user may need to use the vertical scroll-bar in order to make the “Insert” dialogue button visible.</p>

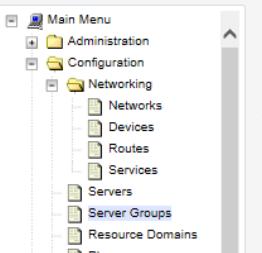
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result																		
6.	<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> <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></td><td>Unique identifier used to identify the server group. [A value is required.]</td></tr> <tr> <td>Level *</td><td>- Select Level - <input type="button" value="▼"/></td><td>Select one of the Levels. [Level B groups are optional.]</td></tr> <tr> <td>Parent *</td><td>- Select Parent - <input type="button" value="▼"/></td><td>Select an existing Server Group.</td></tr> <tr> <td>Function *</td><td>- Select Function - <input type="button" value="▼"/></td><td>Select one of the Functions.</td></tr> <tr> <td>WAN Replication Connection Count</td><td>1</td><td>Specify the number of WAN connections associated with this Server Group.</td></tr> </tbody> </table> <p>Ok Apply Cancel</p>	Field	Value	Description	Server Group Name *		Unique identifier used to identify the server group. [A value is required.]	Level *	- Select Level - <input type="button" value="▼"/>	Select one of the Levels. [Level B groups are optional.]	Parent *	- Select Parent - <input type="button" value="▼"/>	Select an existing Server Group.	Function *	- Select Function - <input type="button" value="▼"/>	Select one of the Functions.	WAN Replication Connection Count	1	Specify the number of WAN connections associated with this Server Group.
Field	Value	Description																		
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Level *	- Select Level - <input type="button" value="▼"/>	Select one of the Levels. [Level B groups are optional.]																		
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Function *	- Select Function - <input type="button" value="▼"/>	Select one of the Functions.																		
WAN Replication Connection Count	1	Specify the number of WAN connections associated with this Server Group.																		
7.	<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 to identify the server group. [A value is required.]</td></tr> </tbody> </table>	Field	Value	Description	Server Group Name *	sds_no_grp	Unique identifier used to identify the server group. [A value is required.]												
Field	Value	Description																		
Server Group Name *	sds_no_grp	Unique identifier used to identify the server group. [A value is required.]																		
8.	<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 to identify the server group. [A value is required.]</td></tr> </tbody> </table>	Field	Value	Description	Server Group Name *	sds_no_grp	Unique identifier used to identify the server group. [A value is required.]												
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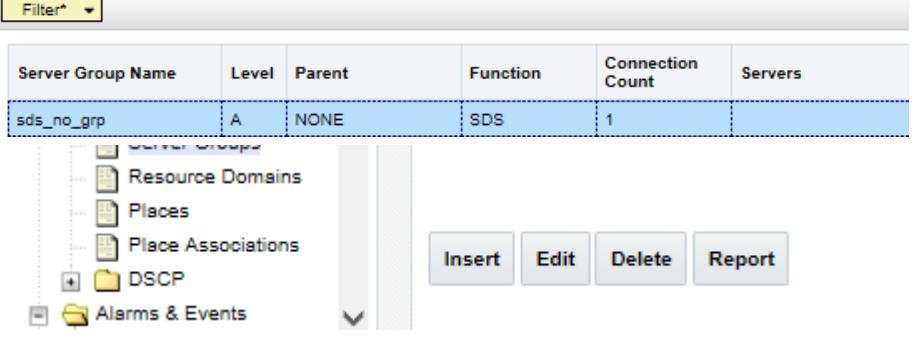
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

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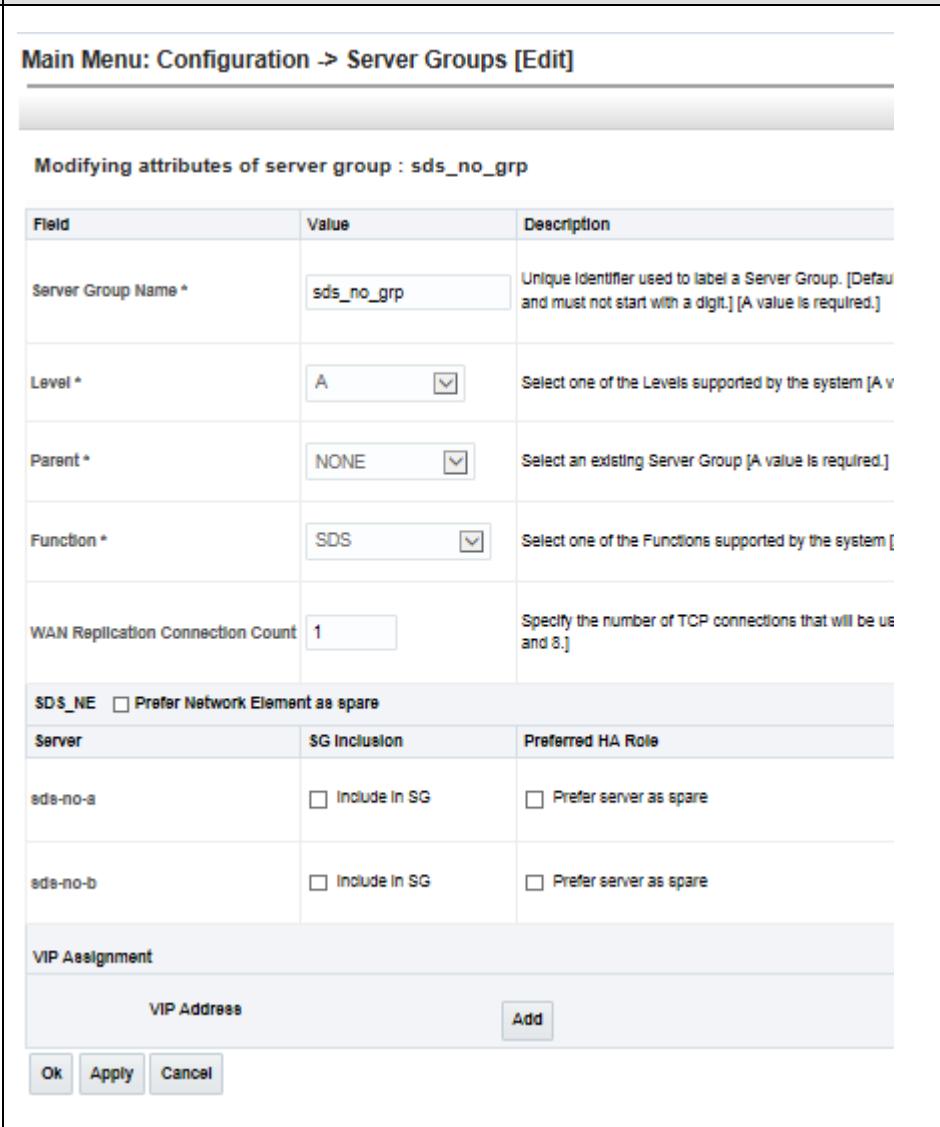
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

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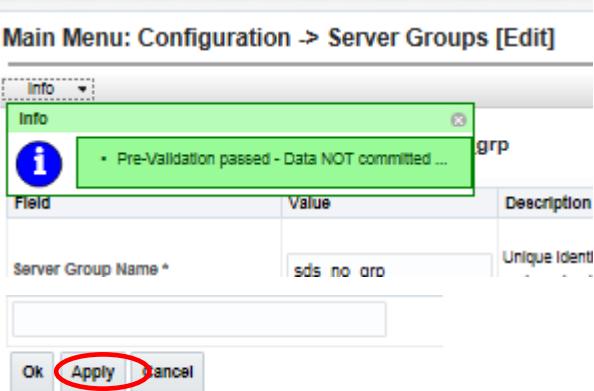
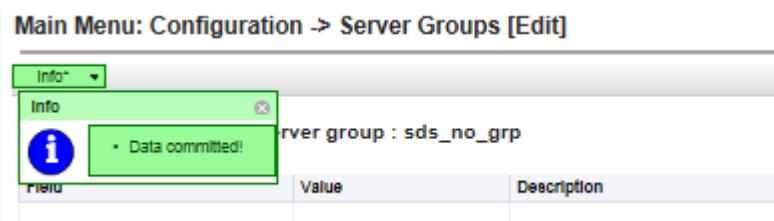
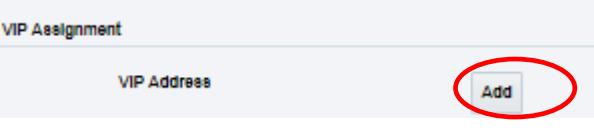
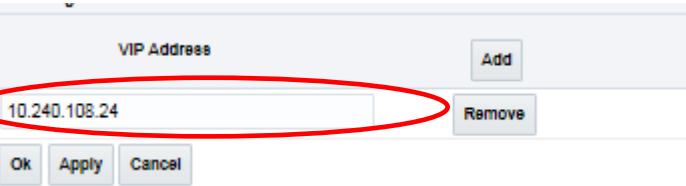
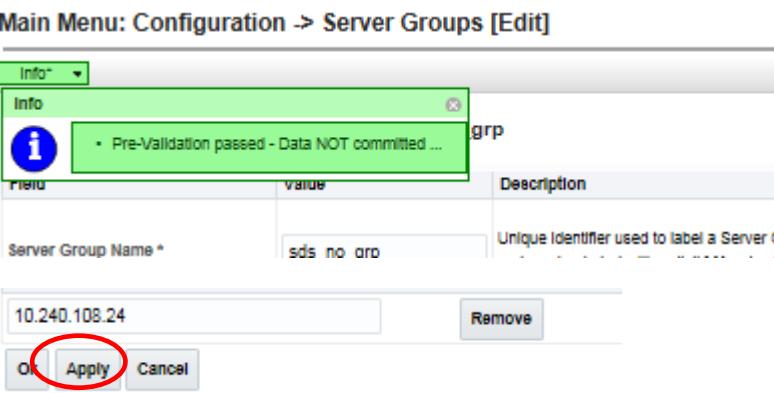
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result												
15.	<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>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>sds_no_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>1</td> <td></td> </tr> </tbody> </table> <p>Resource Domains Places Place Associations DSCP Alarms & Events</p> <p>Insert Edit Delete Report</p> <p>NOTE: The user may need to use the vertical scroll-bar in order to make the “Edit” dialogue button visible.</p>	Server Group Name	Level	Parent	Function	Connection Count	Servers	sds_no_grp	A	NONE	SDS	1	
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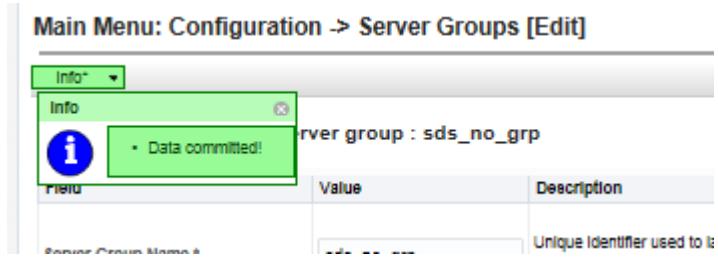
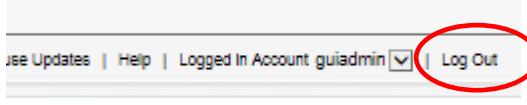
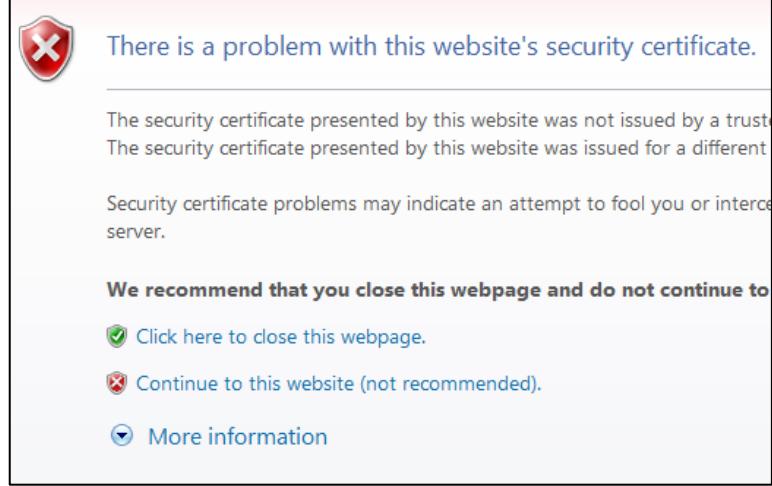
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result																													
16.	<p>SDS Server NOAM A:</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> <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. [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 used [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-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>VIP Assignment</p> <table border="1"> <thead> <tr> <th>VIP Address</th> <th>Add</th> </tr> </thead> </table> <p>Ok Apply 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 used [1 and 8.]	Server	SG 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	VIP Address	Add
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17.	<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>SG 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	SG 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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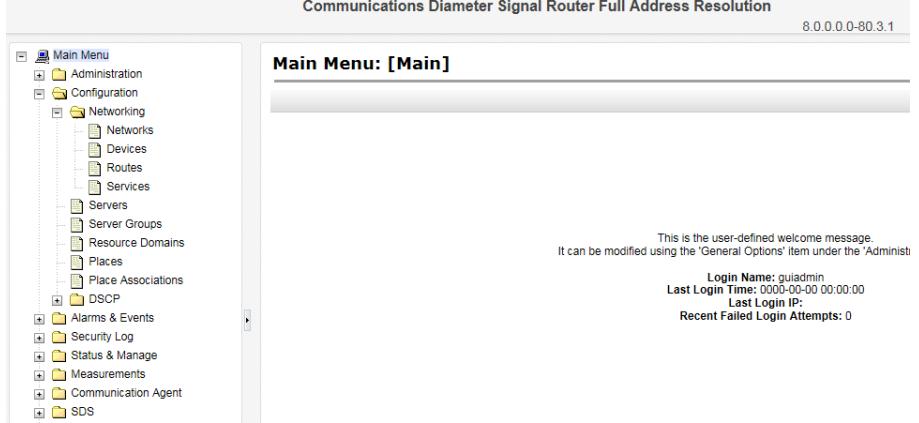
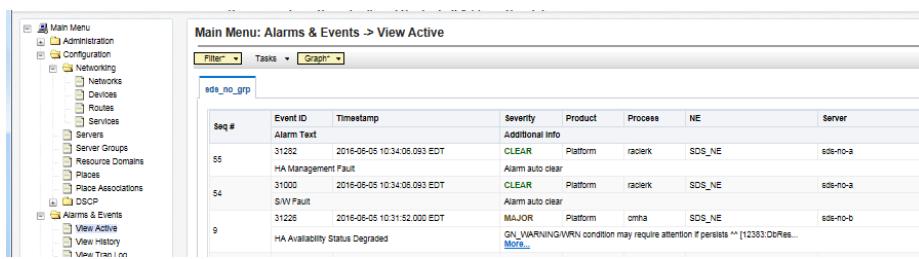
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

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

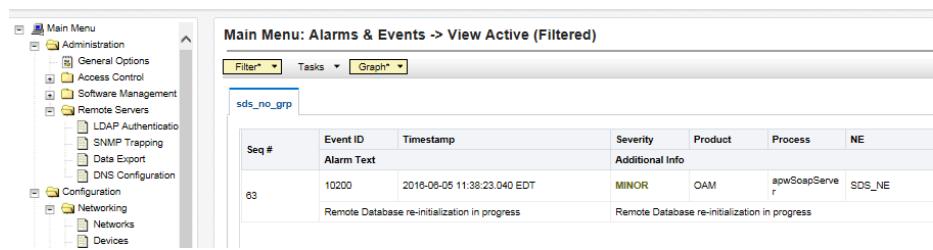
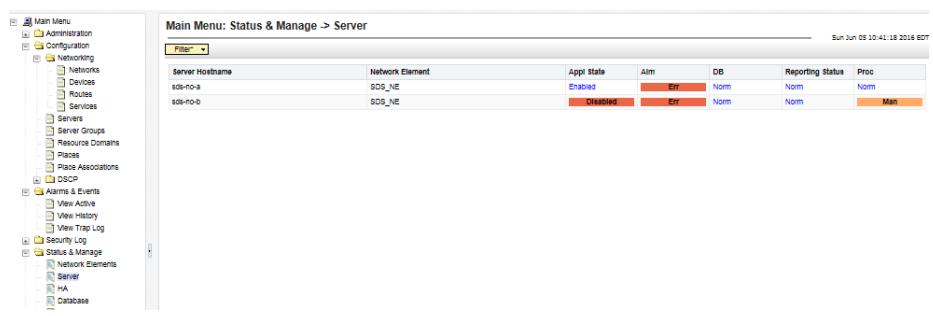
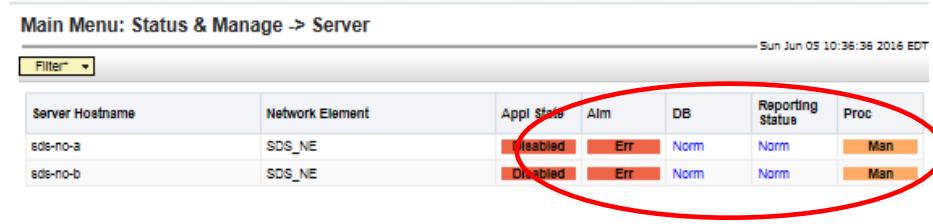
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result
23. <input type="checkbox"/>	SDS Server NOAM A: The user should be presented with a banner information message stating “Data committed” .	
24. <input type="checkbox"/>	SDS Server NOAM A: Click the “Logout” link on the OAM A server GUI.	
25. <input type="checkbox"/>	IMPORTANT: Wait at least 5 minutes before proceeding on to the next Step.	<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.
26. <input type="checkbox"/>	SDS VIP: Launch an approved web browser and connect to the XMI Virtual IP Address (VIP) assigned in STEP 21 to the SDS Server Group	 <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 server.</p> <p>Security certificate problems may indicate an attempt to fool you or intercept your traffic.</p> <p>We recommend that you close this webpage and do not continue to:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Click here to close this webpage. <input type="checkbox"/> Continue to this website (not recommended). <input type="checkbox"/> More information

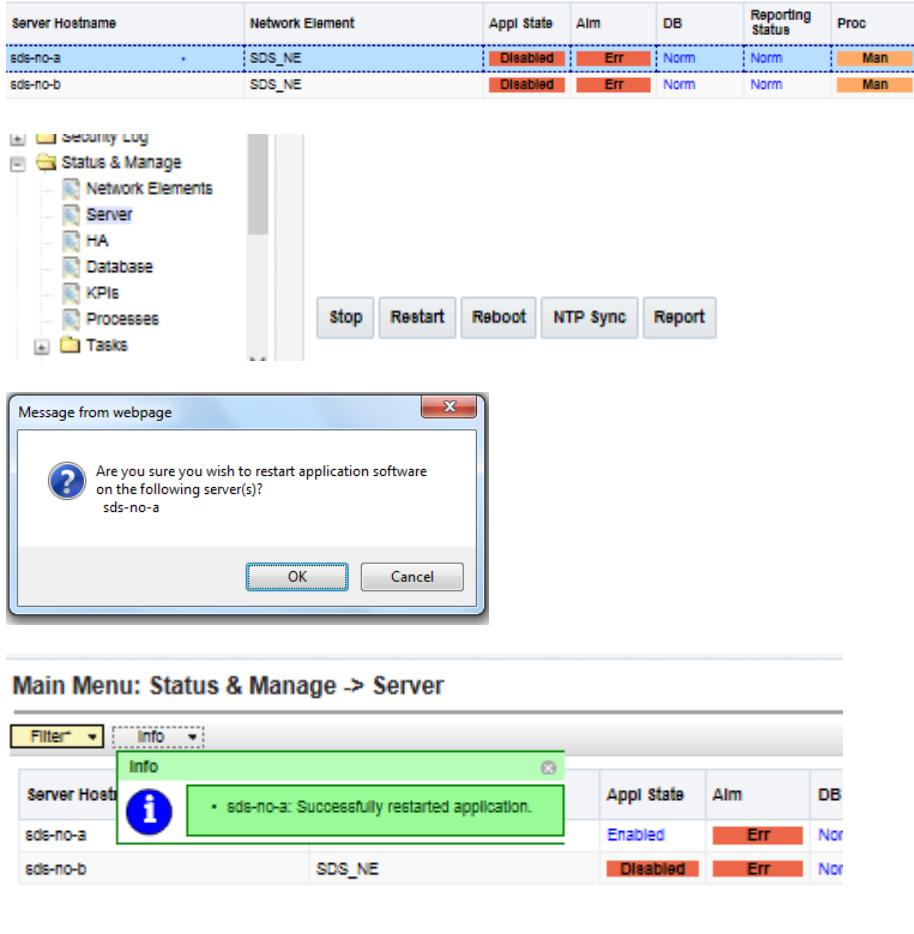
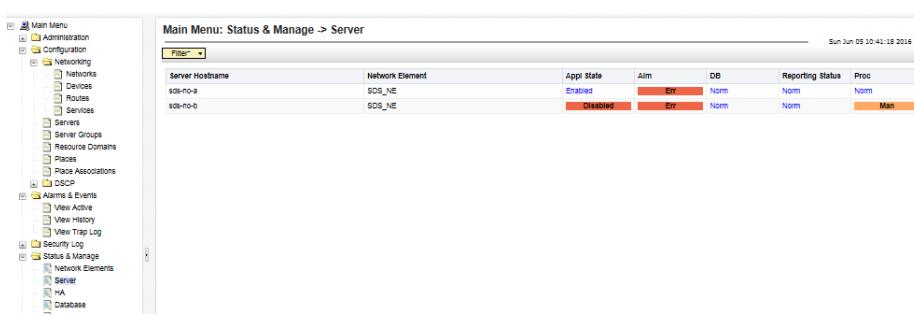
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result																																								
27.	<p>SDS VIP:</p> <p><input type="checkbox"/> 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>ORACLE®</p> <p>Oracle System Login</p> <p>Tue May 31 14:34:34 2016 EDT</p> <p>Log In Enter your username and password to log in</p> <p>Username: _____</p> <p>Password: _____</p> <p><input type="checkbox"/> Change password</p> <p>Log In</p> <p>Welcome to the Oracle System Login.</p> <p>This application is designed to work with most modern HTML5 compliant browsers and uses both JavaScript and cookies. Please refer to the Oracle Software Web Browser Support Policy for details.</p> <p>Unauthorized access is prohibited.</p> <p>Oracle and Java are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.</p> <p>Copyright © 2010, 2016, Oracle and/or its affiliates. All rights reserved.</p>																																								
28.	<p>SDS VIP:</p> <p>The user should be presented the SDS Main Menu as shown on the right.</p>	 <p>Communications Diameter Signal Router Full Address Resolution</p> <p>8.0.0.0-80.3.1</p> <p>Main Menu: [Main]</p> <p>This is the user-defined welcome message. It can be modified using the 'General Options' item under the 'Administ' menu.</p> <p>Login Name: guadmin Last Login Time: 0000-00-00 00:00:00 Last Login IP: Recent Failed Login Attempts: 0</p>																																								
29.	<p>SDS VIP:</p> <p>Select...</p> <p>Main Menu</p> <p>→ Alarms & Events</p> <p>→ View Active</p> <p>...as shown on the right.</p>	 <p>Main Menu: Alarms & Events -> View Active</p> <p>Filter: Tasks Graph</p> <p>sdse_no_grp</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>55</td> <td>31232</td> <td>2016-06-05 10:34:06.093 EDT</td> <td>CLEAR</td> <td>Platform</td> <td>racerK</td> <td>SDS_NE</td> <td>sdse-no-3</td> </tr> <tr> <td>54</td> <td>31000</td> <td>2016-06-05 10:34:06.093 EDT</td> <td>CLEAR</td> <td>Platform</td> <td>racerK</td> <td>SDS_NE</td> <td>sdse-no-3</td> </tr> <tr> <td>9</td> <td>31226</td> <td>2016-06-05 10:31:52.000 EDT</td> <td>MAJOR</td> <td>Platform</td> <td>omna</td> <td>SDS_NE</td> <td>sdse-no-3</td> </tr> <tr> <td></td> <td></td> <td></td> <td>GN_WARNING</td> <td>GN_WARNING</td> <td>GN_WARNING</td> <td>GN_WARNING</td> <td>GN_WARNING</td> </tr> </tbody> </table> <p>Condition may require attention if persists ^ [12353.D2Res...] More...</p>	Seq #	Event ID	Timestamp	Severity	Product	Process	NE	Server	55	31232	2016-06-05 10:34:06.093 EDT	CLEAR	Platform	racerK	SDS_NE	sdse-no-3	54	31000	2016-06-05 10:34:06.093 EDT	CLEAR	Platform	racerK	SDS_NE	sdse-no-3	9	31226	2016-06-05 10:31:52.000 EDT	MAJOR	Platform	omna	SDS_NE	sdse-no-3				GN_WARNING	GN_WARNING	GN_WARNING	GN_WARNING	GN_WARNING
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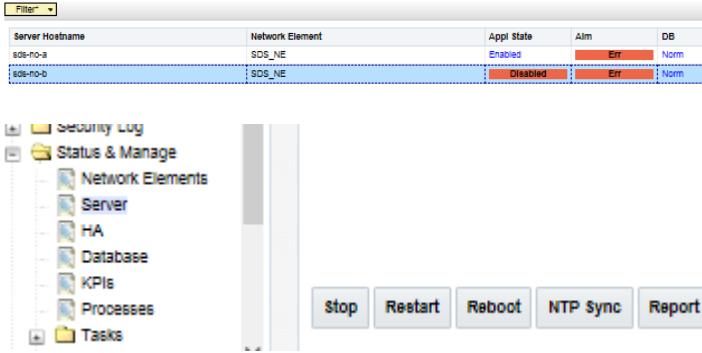
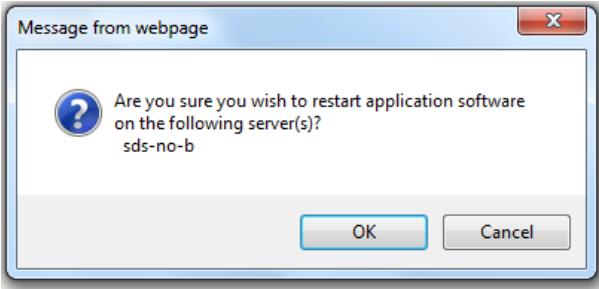
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result
30.	SDS VIP: Verify whether or not Event ID 10200 (<i>Remote Database re-initialization in progress</i>) is present.	
 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.		
31.	SDS VIP: Select... Main Menu → Status & Manage → Server ...as shown on the right.	
32.	SDS VIP: <ol style="list-style-type: none"> 1) The “A” and “B” SDS servers should now appear in the right panel. 2) Verify that the “DB” status shows “Norm” and the “Proc” status shows “Man” for both servers before proceeding to the next Step. 	

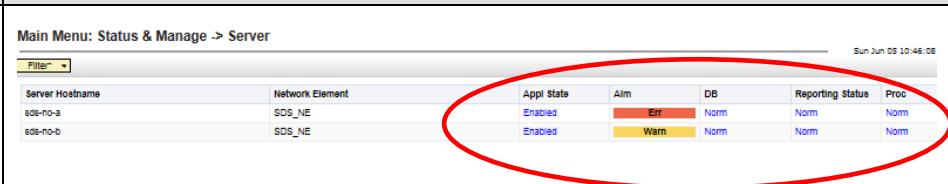
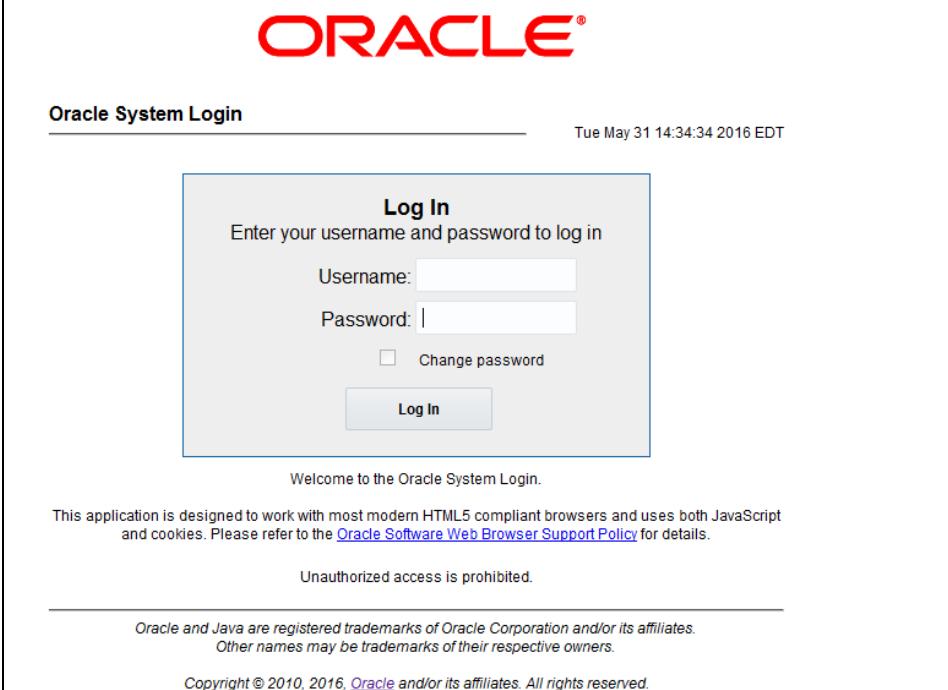
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result
33.	<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>	 <p>The screenshot shows the SDS NOAM interface. The left pane displays a tree structure with 'Status & Manage' selected, and 'Server' is expanded. The right pane shows a table of servers with two entries: 'sds-no-a' and 'sds-no-b'. Below the table are buttons for 'Stop', 'Restart', 'Reboot', 'NTP Sync', and 'Report'. A 'Message from webpage' dialog box is open, asking 'Are you sure you wish to restart application software on the following server(s)? sds-no-a'. The 'OK' button is highlighted. At the bottom, a banner message says 'sds-no-a: Successfully restarted application.'</p>
34.	<p>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 SDS NOAM interface. The left pane displays a tree structure with 'Status & Manage' selected, and 'Server' is expanded. The right pane shows a table of servers with two entries: 'sds-no-a' and 'sds-no-b'. The 'sds-no-a' entry has a status of 'Enabled' and 'Err' for Alm and DB. The 'sds-no-b' entry has a status of 'Disabled' and 'Err' for Alm and DB. A timestamp 'Sun Jun 05 10:41:18 2016 EDT' is visible at the top right.</p>

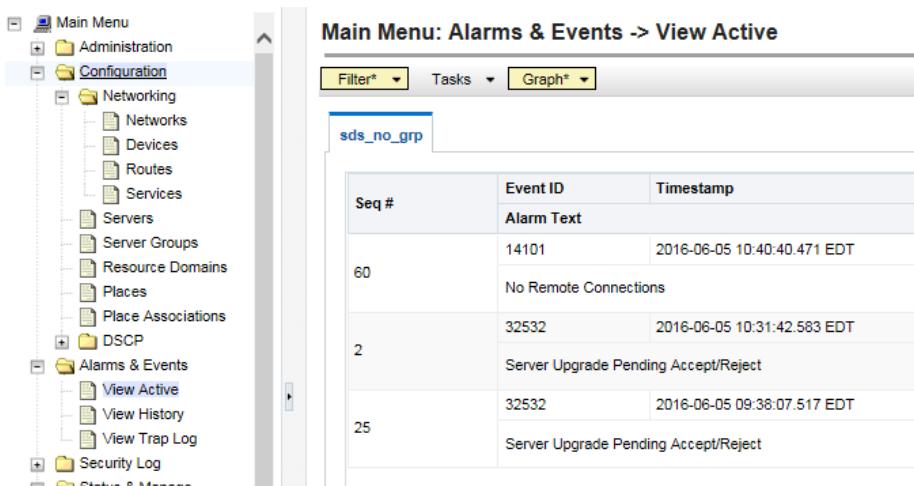
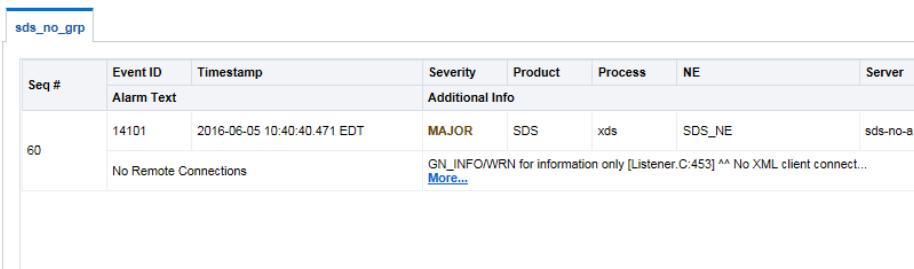
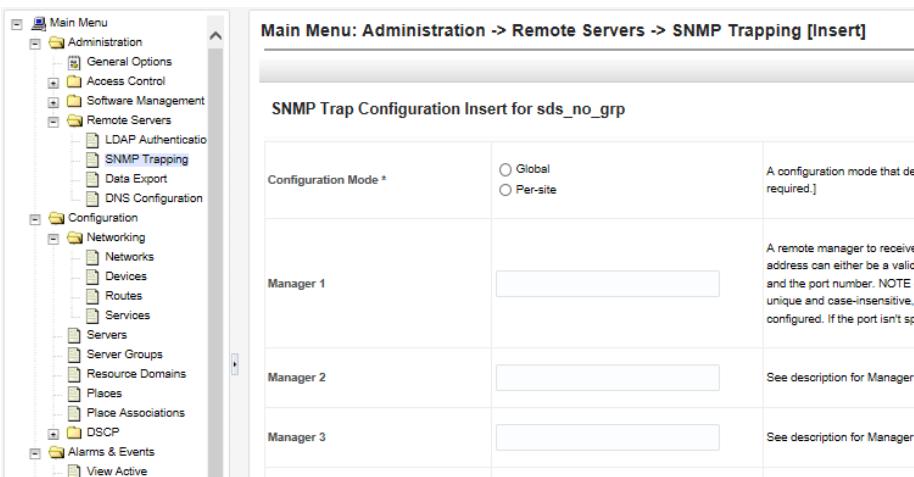
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result
35.	<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>Main Menu: Status & Manage -> Server</p> 
36.	<p>SDS VIP:</p> <ol style="list-style-type: none"> 1) Using the mouse, select SDS Server B. The line entry should now be highlighted. 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 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>	  <p>Main Menu: Status & Manage -> Server</p> 

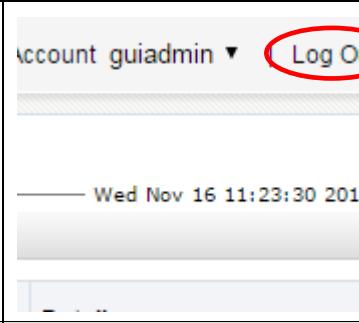
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result
37.	<p>SDS VIP:</p> <p><input type="checkbox"/> 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> 
38.	<p>IMPORTANT: 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.
39.	<p>SDS VIP:</p> <p><input type="checkbox"/> 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>	

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

Step	Procedure	Result																								
40.	<p>SDS VIP: <input type="checkbox"/> Select...</p> <p>Main Menu → Alarms & Events → View Active</p> <p>...as shown on the right.</p>	 <p>Main Menu: Alarms & Events -> View Active</p> <p>Filter* Tasks Graph*</p> <p>sds_no_grp</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>No Remote Connections</td> <td></td> </tr> <tr> <td>2</td> <td>32532</td> <td>2016-06-05 10:31:42.583 EDT</td> </tr> <tr> <td></td> <td>Server Upgrade Pending Accept/Reject</td> <td></td> </tr> <tr> <td>25</td> <td>32532</td> <td>2016-06-05 09:38:07.517 EDT</td> </tr> <tr> <td></td> <td>Server Upgrade Pending Accept/Reject</td> <td></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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41.	<p>SDS VIP: <input type="checkbox"/> 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>xds</td> <td>SDS_NE</td> <td>sds-no-a</td> </tr> <tr> <td></td> <td>No Remote Connections</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></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	xds	SDS_NE	sds-no-a		No Remote Connections						
Seq #	Event ID	Timestamp	Severity	Product	Process	NE	Server																			
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	No Remote Connections																									
42.	<p>SDS VIP: <input type="checkbox"/> Select...</p> <p>Main Menu → Administration → Remote Servers → SNMP Trapping</p> <p>...as shown on the right.</p>	 <p>Main Menu: Administration -> Remote Servers -> SNMP Trapping [Insert]</p> <p>SNMP Trap Configuration Insert for sds_no_grp</p> <table border="1"> <thead> <tr> <th>Manager</th> <th>Address</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Manager 1</td> <td><input type="text"/></td> <td>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.</td> </tr> <tr> <td>Manager 2</td> <td><input type="text"/></td> <td>See description for Manager 1</td> </tr> <tr> <td>Manager 3</td> <td><input type="text"/></td> <td>See description for Manager 1</td> </tr> </tbody> </table>	Manager	Address	Description	Manager 1	<input type="text"/>	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.	Manager 2	<input type="text"/>	See description for Manager 1	Manager 3	<input type="text"/>	See description for Manager 1												
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Manager 3	<input type="text"/>	See description for Manager 1																								

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

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

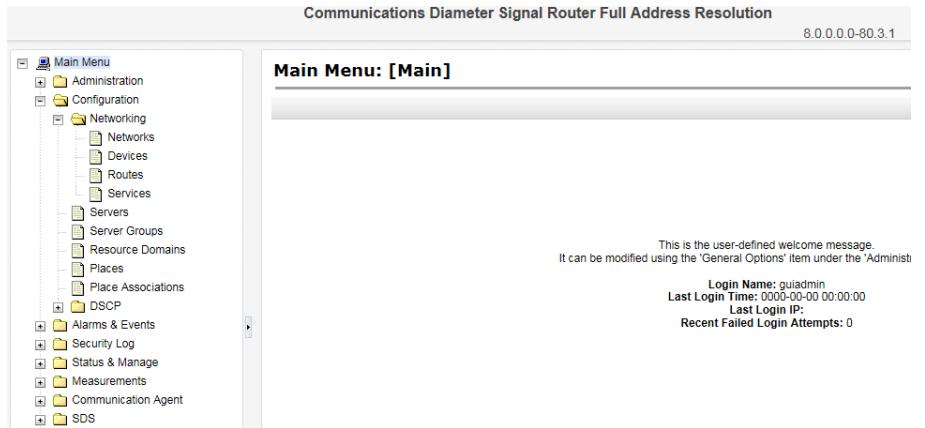
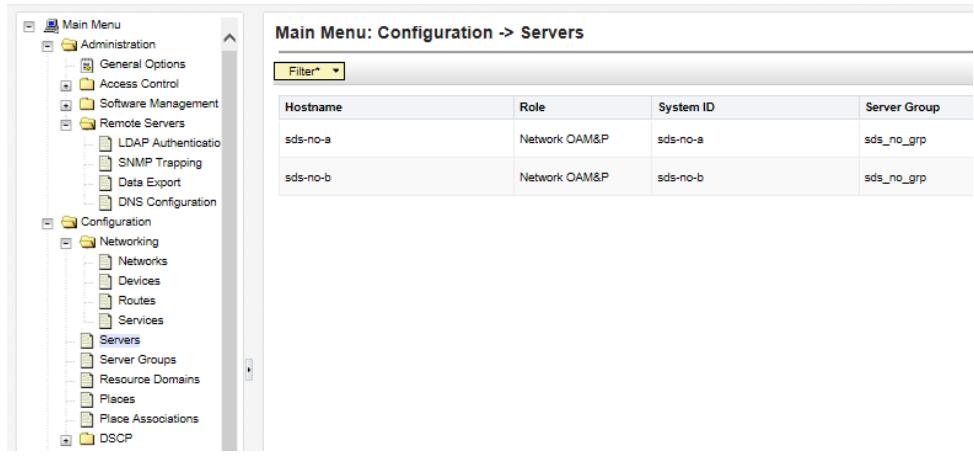
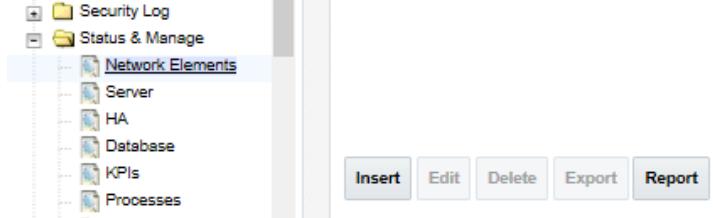
5.3 Query Server Installation (All SDS NOAM sites)

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.

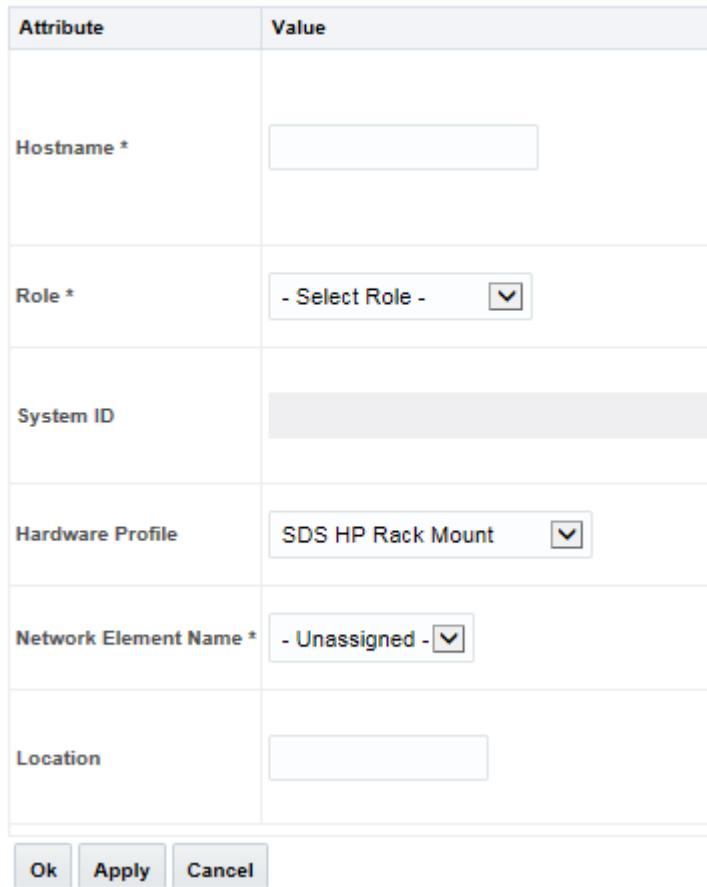
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result
1.	<p>Primary SDS VIP: <input type="checkbox"/> Launch an approved web browser and connect to the XML Virtual IP address (VIP) assigned to Active SDS site</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>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 server.</p> <p>Security certificate problems may indicate an attempt to fool you or intercept your information.</p> <p>We recommend that you close this webpage and do not continue to this website.</p> <p> <input checked="" type="radio"/> Click here to close this webpage. <input type="radio"/> Continue to this website (not recommended). <input type="radio"/> More information </p>
2.	<p>Primary SDS VIP: <input type="checkbox"/> 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>ORACLE®</p> <p>Oracle System Login Tue May 31 14:34:34 2016 EDT</p> <div style="border: 1px solid #ccc; padding: 10px; width: fit-content; margin: 10px auto;"> <p style="text-align: center;">Log In</p> <p style="text-align: center;">Enter your username and password to log in</p> <p style="text-align: center;">Username: <input type="text"/></p> <p style="text-align: center;">Password: <input type="password"/></p> <p style="text-align: center;"><input type="checkbox"/> Change password</p> <p style="text-align: center;">Log In</p> </div> <p>Welcome to the Oracle System Login.</p> <p>This application is designed to work with most modern HTML5 compliant browsers and uses both JavaScript and cookies. Please refer to the Oracle Software Web Browser Support Policy for details.</p> <p>Unauthorized access is prohibited.</p> <p style="text-align: center;"><small>Oracle and Java are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.</small></p> <p style="text-align: center;"><small>Copyright © 2010, 2016, Oracle and/or its affiliates. All rights reserved.</small></p>

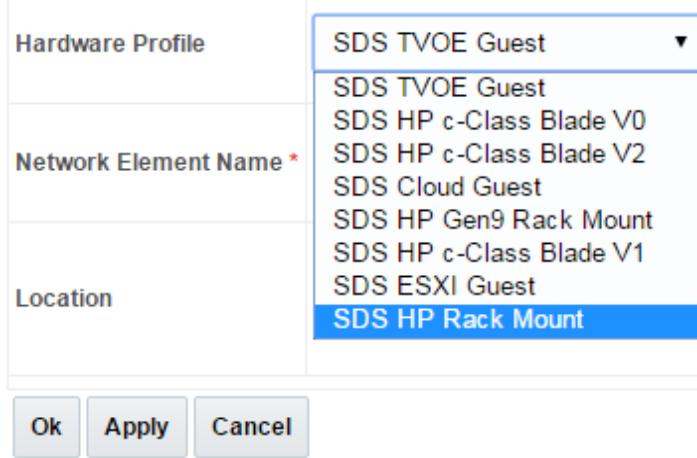
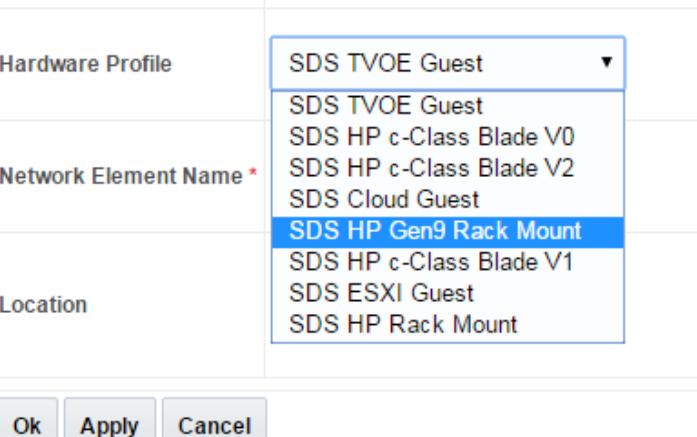
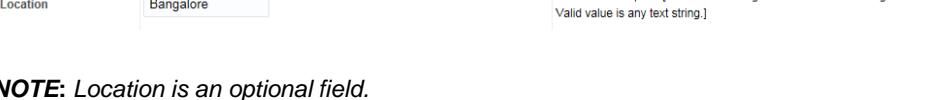
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result												
3.	<p>Primary SDS VIP: <input type="checkbox"/> The user should be presented the SDS Main Menu as shown on the right.</p>													
4.	<p>Primary SDS VIP: <input type="checkbox"/> Select... Main Menu → Configuration → Servers ...as shown on the right.</p>	 <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>System ID</th> <th>Server Group</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> </tr> <tr> <td>sds-no-b</td> <td>Network OAM&P</td> <td>sds-no-b</td> <td>sds_no_grp</td> </tr> </tbody> </table>	Hostname	Role	System ID	Server Group	sds-no-a	Network OAM&P	sds-no-a	sds_no_grp	sds-no-b	Network OAM&P	sds-no-b	sds_no_grp
Hostname	Role	System ID	Server Group											
sds-no-a	Network OAM&P	sds-no-a	sds_no_grp											
sds-no-b	Network OAM&P	sds-no-b	sds_no_grp											
5.	<p>Primary SDS VIP: <input type="checkbox"/> Select the “Insert” dialogue button.</p>													

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

Step	Procedure	Result																	
6.	<p>Primary SDS VIP: <input type="checkbox"/> 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></td> </tr> <tr> <td>Role *</td> <td>- Select Role - <input type="button" value="▼"/></td> </tr> <tr> <td>System ID</td> <td></td> </tr> <tr> <td>Hardware Profile</td> <td>SDS HP Rack Mount <input checked="" type="checkbox"/></td> </tr> <tr> <td>Network Element Name *</td> <td>- Unassigned - <input type="button" value="▼"/></td> </tr> <tr> <td>Location</td> <td></td> </tr> <tr> <td style="text-align: center;">Ok</td> <td style="text-align: center;">Apply</td> <td style="text-align: center;">Cancel</td> </tr> </tbody> </table>	Attribute	Value	Hostname *		Role *	- Select Role - <input type="button" value="▼"/>	System ID		Hardware Profile	SDS HP Rack Mount <input checked="" type="checkbox"/>	Network Element Name *	- Unassigned - <input type="button" value="▼"/>	Location		Ok	Apply	Cancel
Attribute	Value																		
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Location																			
Ok	Apply	Cancel																	
7.	<p>Primary SDS VIP: <input type="checkbox"/> 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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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.]																	
8.	<p>Primary SDS VIP: <input type="checkbox"/> Select “QUERY SERVER” for the server “Role” from the pull-down menu.</p>	<table border="1"> <tr> <td>Role *</td> <td style="text-align: center;">- Select Role -</td> </tr> <tr> <td></td> <td style="text-align: center;">NETWORK OAM&P SYSTEM OAM MP QUERY SERVER</td> </tr> <tr> <td>System ID</td> <td></td> </tr> </table> <p>Select the function of the server [A value is required.]</p> <p>System ID for the NOAMP or SOAM server. [Default = n/a. Range = A 64-character string. Valid value is any text string.]</p>	Role *	- Select Role -		NETWORK OAM&P SYSTEM OAM MP QUERY SERVER	System ID												
Role *	- Select Role -																		
	NETWORK OAM&P SYSTEM OAM MP QUERY SERVER																		
System ID																			

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

Step	Procedure	Result
9.	<p>Primary SDS VIP: <input type="checkbox"/> 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> 
10.	<p>Primary SDS VIP: <input type="checkbox"/> Select the Network Element Name of the SDS site where the Query Server is physically located.</p>	
11.	<p>Primary SDS VIP: <input type="checkbox"/> Enter the site location.</p>	 <p>NOTE: Location is an optional field.</p>

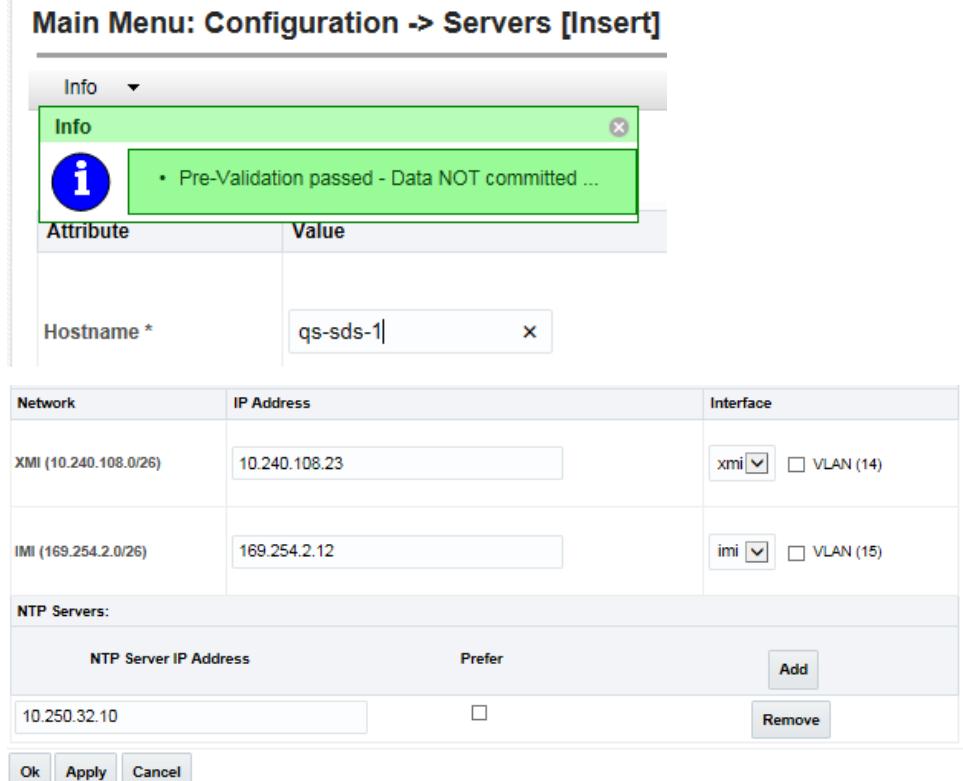
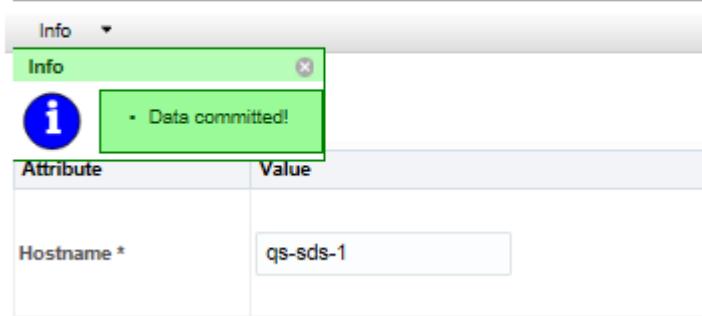
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result																															
12. <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
Network	IP Address	Interface																															
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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"/>																													
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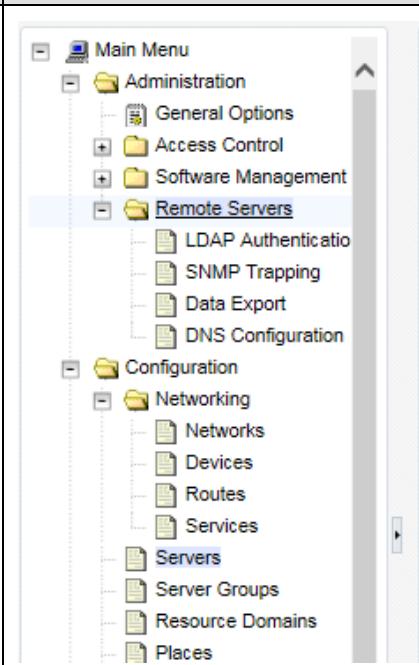
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result															
13.	<p>1) Enter the customer assigned XMI IP address for the Query 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.</p> <p>- 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>	<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="flex: 1;"> <p>INTERNALXMI (10.240.20.0/22) <input type="text" value="10.240.20.2"/></p> <p><input type="button" value="bond1"/> <input type="checkbox"/> VLAN (3)</p> </div> <div style="flex: 4; border: 1px solid #ccc; padding: 5px; margin-left: 10px;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #f2f2f2;">Query Server</th> <th style="background-color: #f2f2f2;">Network</th> <th style="background-color: #f2f2f2;">VLAN tagging (on XMI network)</th> <th style="background-color: #f2f2f2;">Interface</th> <th style="background-color: #f2f2f2;">VLAN Checkbox</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">SDS-QS (Primary & DR)</td> <td style="text-align: center;">XMI</td> <td style="text-align: center;">No</td> <td style="text-align: center;">bond1</td> <td style="text-align: center;"></td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">bond0</td> <td style="text-align: center;"></td> </tr> </tbody> </table> </div> </div> <p>!!! CAUTION!!!</p> <p><i>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.</i></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														
14.	<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>	<div style="display: flex; flex-direction: column;"> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;"> <p>NTP Servers:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%;"><input type="text" value="NTP Server IP Address"/></td> <td style="width: 30%; text-align: right;"><input type="checkbox"/> Prefer</td> <td style="text-align: right;"><input type="button" value="Add"/></td> </tr> </table> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;"> <p>NTP Servers:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%;"><input type="text" value="10.250.32.10"/></td> <td style="width: 30%; text-align: right;"><input type="checkbox"/></td> <td style="text-align: right;"><input type="button" value="Add"/></td> </tr> </table> </div> <div style="border: 1px solid #ccc; padding: 5px;"> <p>NTP Servers:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%;"><input type="text" value="10.250.32.51"/></td> <td style="width: 30%; text-align: right;"><input type="checkbox"/></td> <td style="text-align: right;"><input type="button" value="Add"/></td> </tr> <tr> <td style="width: 70%;"><input type="text" value="10.250.32.10"/></td> <td style="width: 30%; text-align: right;"><input checked="" type="checkbox"/></td> <td style="text-align: right;"><input type="button" value="Remove"/></td> </tr> </table> </div> </div>	<input type="text" value="NTP Server IP Address"/>	<input type="checkbox"/> Prefer	<input type="button" value="Add"/>	<input type="text" value="10.250.32.10"/>	<input type="checkbox"/>	<input type="button" value="Add"/>	<input type="text" value="10.250.32.51"/>	<input type="checkbox"/>	<input type="button" value="Add"/>	<input type="text" value="10.250.32.10"/>	<input checked="" type="checkbox"/>	<input type="button" value="Remove"/>			
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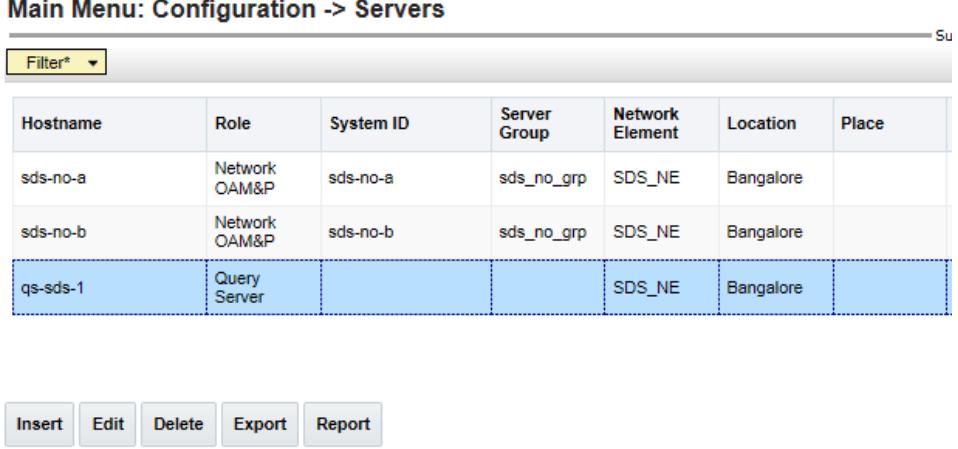
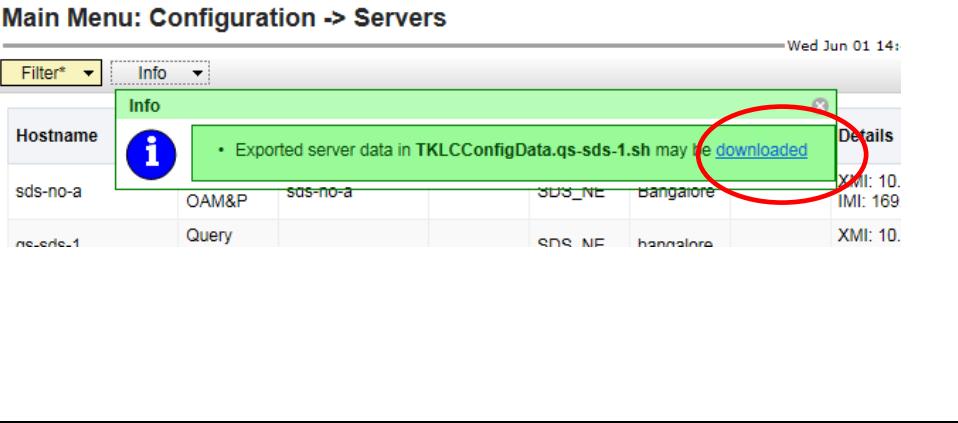
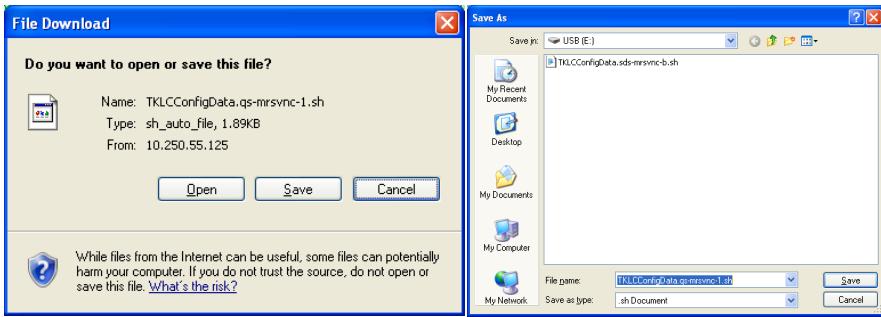
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result
15.	<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>	
16.	<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																																					
17.	<p>Primary SDS VIP: <input type="checkbox"/> Select...</p> <p>Main Menu → Configuration → Servers</p> <p>...as shown on the right.</p>		<p>Main Menu: Configuration -> Servers</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																												
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18.	<p>Primary SDS VIP: <input type="checkbox"/> The “Configuration → Servers” screen now shows the newly added Query Server in the list.</p>	<p>Main Menu: Configuration -> Servers</p> <table border="1"> <thead> <tr> <th>Filter*</th> <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></td> <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>XMI: 10.240.1 IMI: 169.254.1</td> </tr> <tr> <td></td> <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>XMI: 10.240.1 IMI: 169.254.1</td> </tr> <tr> <td></td> <td>qs-sds-1</td> <td>Query Server</td> <td></td> <td></td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> <td>XMI: 10.240.1 IMI: 169.254.1</td> </tr> </tbody> </table>	Filter*	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		XMI: 10.240.1 IMI: 169.254.1		sds-no-b	Network OAM&P	sds-no-b	sds_no_grp	SDS_NE	Bangalore		XMI: 10.240.1 IMI: 169.254.1		qs-sds-1	Query Server			SDS_NE	Bangalore		XMI: 10.240.1 IMI: 169.254.1	
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19.	<p>Primary SDS VIP: <input type="checkbox"/> Using the mouse, select the Query Server. The line entry containing the Query Server should now be highlighted.</p>	<p>Main Menu: Configuration -> Servers</p> <table border="1"> <thead> <tr> <th>Filter*</th> <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></td> <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></td> <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></td> <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>	Filter*	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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Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result
20.	Primary SDS VIP: Select the “ Export ” dialogue button.	
21.	Primary SDS VIP: The user must select the 'Info' box to receive a banner information message showing a download link for the Query Server configuration data. Click on the word “ downloaded ” to download and save the file.	
22.	Primary SDS VIP: 1) Click the “Save” dialogue button. 2) Save the Query Server configuration file to a USB flash drive.	
23.	Query Server: Access the server console.	Connect to the Query Server console using one of the access methods described in Section 2.3 .

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

Step	Procedure	Result
24. <input type="checkbox"/>	Query Server: 1) Access the command prompt. 2) Log into the server as the “ admusr ” user.	login: admusr Using keyboard-interactive authentication. Password: <admusr_password>
25. <input type="checkbox"/>	Query Server: Insert the USB flash drive containing the server configuration file into the USB port on the front panel of the Query Server.	 Figure 3 - HP DL380 Gen8, Front Panel (USB Port)  Figure 4 - HP DL380 Gen9, Front Panel (USB Port)
26. <input type="checkbox"/>	Query Server: Output similar to that shown on the right will appear as the USB flash drive is inserted into the SDS Server front USB port.	<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>
27. <input type="checkbox"/>	Query Server: Verify that the USB flash drive's partition has been mounted by the OS.	<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>
28. <input type="checkbox"/>	Query Server: Copy the configuration file	<pre>\$ sudo cp -p /media/sdb1/TKLCConfigData.qs-mrsync-1.sh /var/TKLC/db/filemgmt.</pre>

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

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

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

Step	Procedure	Result
33.	SDS Server NOAM A or B: Verify that the desired Time Zone is currently in use.	\$ date Mon Aug 10 19:34:51 UTC 2015
34. <input type="checkbox"/>	SDS Server NOAM A or B: If the desired Time Zone was not presented in the previous step... Configure the Time Zone. verify the timezone was changed. Otherwise, skip to the next step.	Example: \$ sudo set_ini_tz.pl <time_zone> NOTE: The following command example sets the time to the "UTC" (aka GMT) time zone which is recommended for all sites. The user may replace, as appropriate, with the customer requested time zone for this site installation. See Appendix G for a list of valid time zones. \$ sudo set_ini_tz.pl "Etc/UTC" \$ date Mon Aug 10 19:34:51 UTC 2015
35. <input type="checkbox"/>	Query Server: Initiate a reboot of the Query Server.	\$ sudo init 6
36. <input type="checkbox"/>	Query Server: Output similar to that shown on the right may be observed as the server initiates a reboot.	<pre>root@hostname1322832264 ~]# init 6 root@hostname1322832264 ~]# 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 c onflicts. bonding: bond0: releasing backup interface eth02 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>
37. <input type="checkbox"/>	Query Server: 1) Access the command prompt. 2) Login as the "admusr" user.	login: admusr Using keyboard-interactive authentication. Password: <admusr_password>

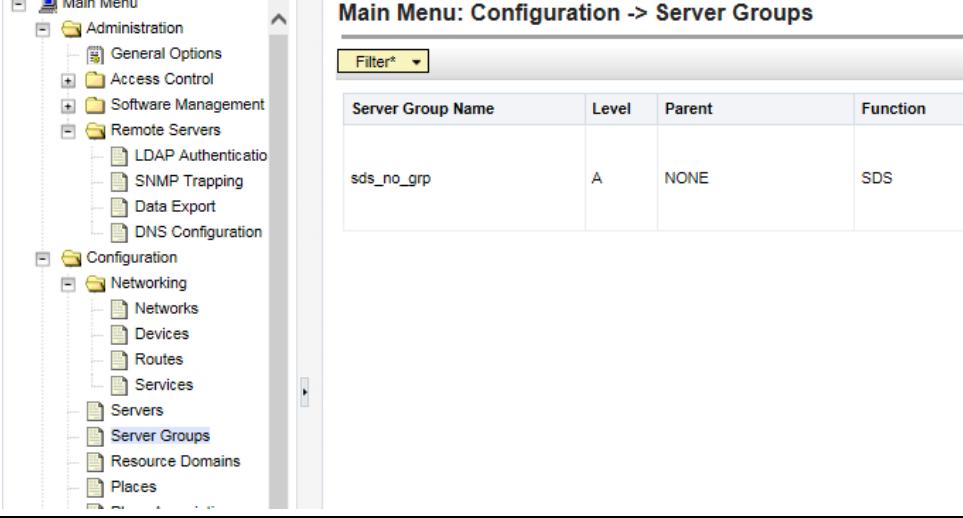
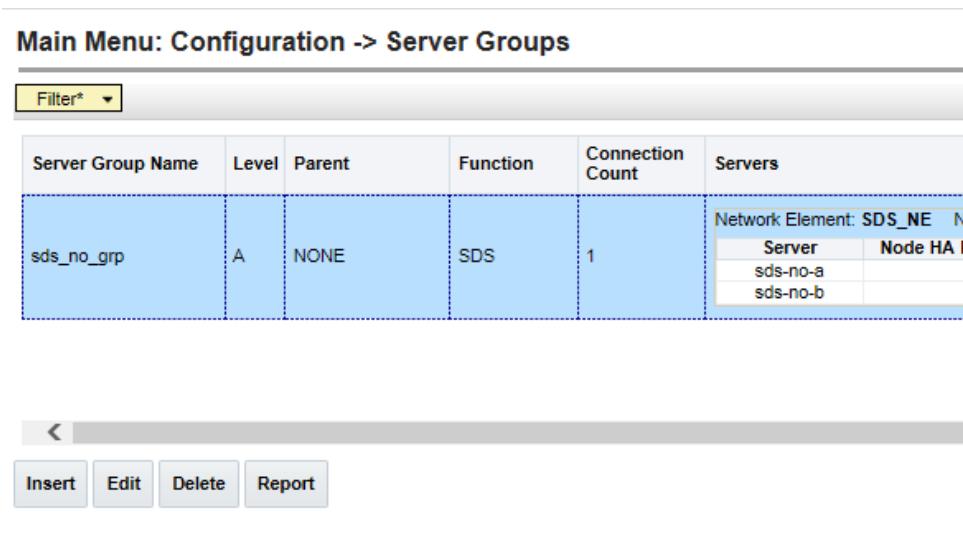
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result
38.	Query Server: Accept upgrade to the Application Software..	<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/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 [admusr@rlghnc-sds-QS ~]\$</pre>
39.	Query Server: <input type="checkbox"/> 1) Verify that the IMI IP address input in Step 12 has been applied to " bond0.4 ". 2) Verify that the XMI IP address input in Step 13 has been applied to " bond1 ".	<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
40. <input type="checkbox"/>	Query Server: From the Query Server , “ping” the IMI IP address configured for SDS Server NOAM A .	<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>
41. <input type="checkbox"/>	Query Server: Use “ping” to verify that the Query Server can reach the configured XMI Gateway address .	<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>
42. <input type="checkbox"/>	Query Server: Use the “ ntpq ” command to verify that the server has connectivity to the assigned NTP server(s).	<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>
43. <input type="checkbox"/>	Query Server: Execute a “ syscheck ” to verify the current health of the server.	<pre>\$ sudo syscheck Running modules in class hardware... OK Running modules in class disk... OK Running modules in class net... OK Running modules in class system... OK Running modules in class proc... OK LOG LOCATION: /var/TKLC/log/syscheck/fail_log \$</pre>

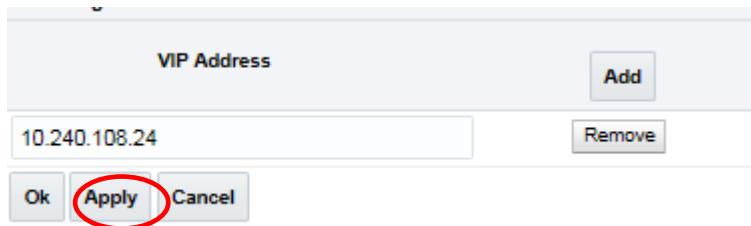
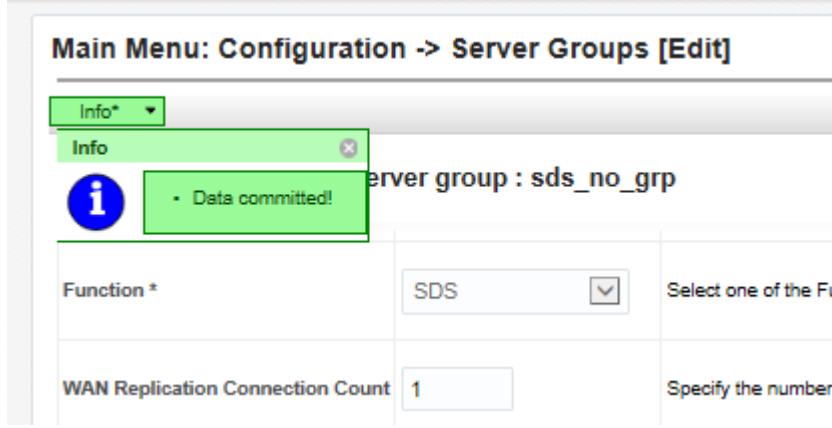
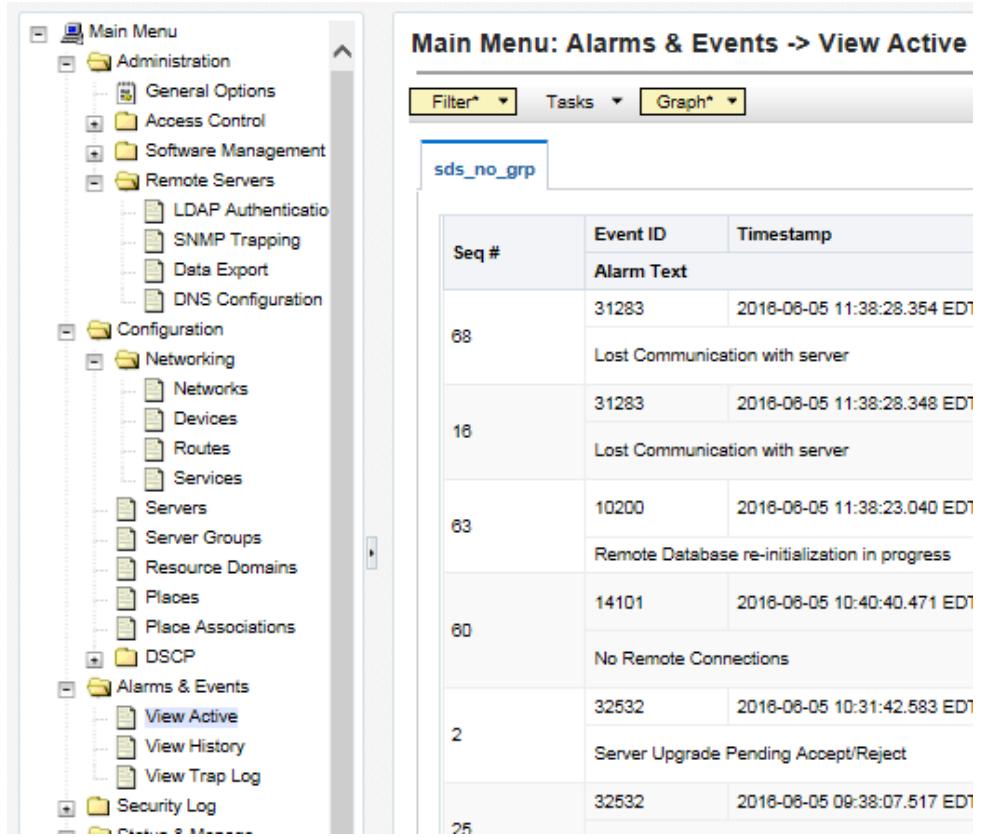
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

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

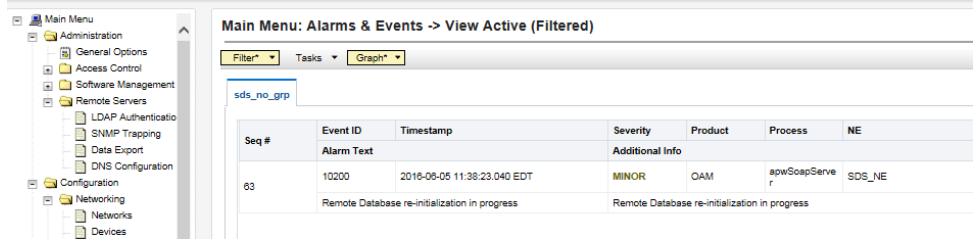
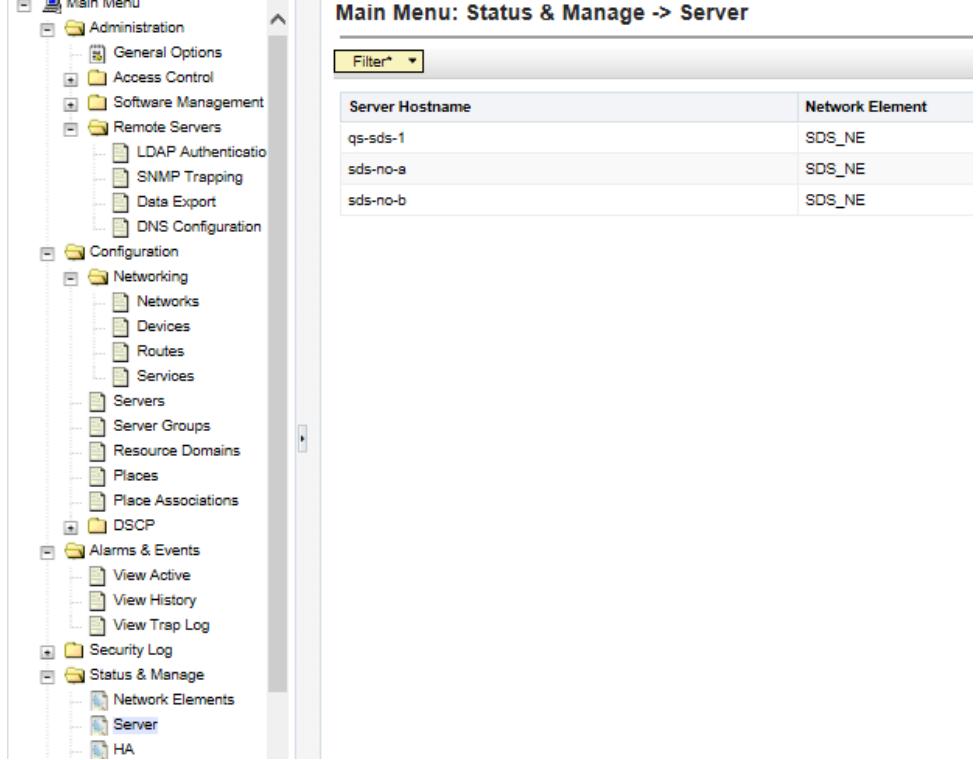
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result																																
48.	<p>Primary SDS VIP: <input type="checkbox"/> 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> <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. [Default: sds_no_grp]</td> </tr> <tr> <td>Level *</td> <td>A</td> <td>Select one of the Levels supported by the system [A]</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 [SDS]</td> </tr> <tr> <td>WAN Replication Connection Count</td> <td>1</td> <td>Specify the number of TCP connections that will be used for WAN replication.</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-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>Add</th> </tr> </thead> </table>	Field	Value	Description	Server Group Name *	sds_no_grp	Unique identifier used to label a Server Group. [Default: sds_no_grp]	Level *	A	Select one of the Levels supported by the system [A]	Parent *	NONE	Select an existing Server Group [A value is required.]	Function *	SDS	Select one of the Functions supported by the system [SDS]	WAN Replication Connection Count	1	Specify the number of TCP connections that will be used for WAN replication.	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	Add
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49.	<p>Primary SDS VIP: <input type="checkbox"/> 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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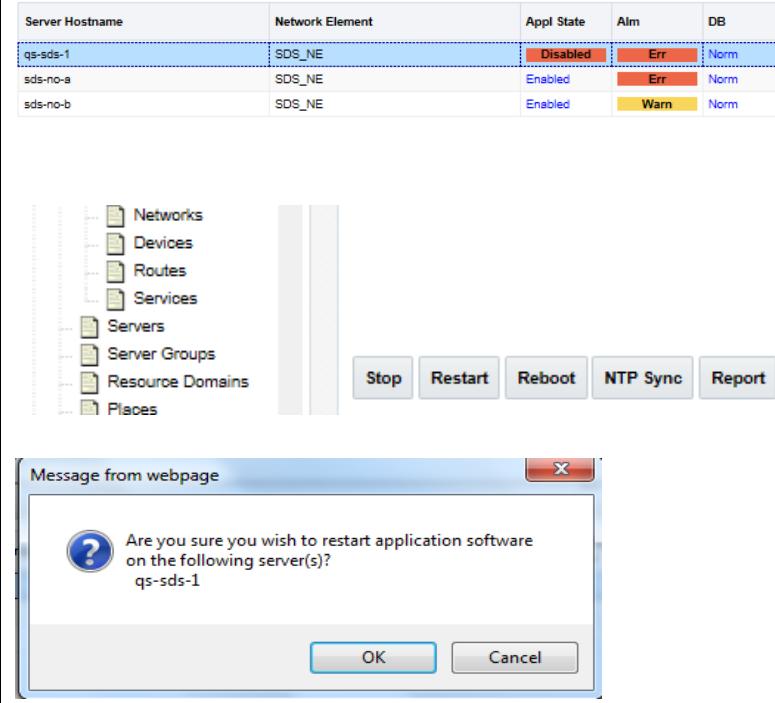
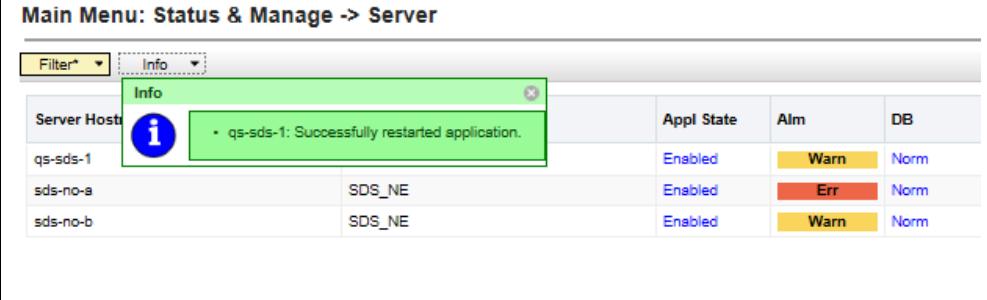
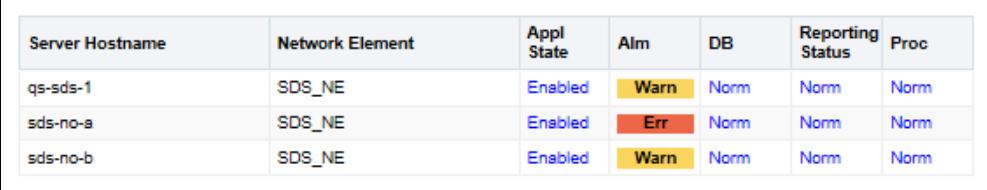
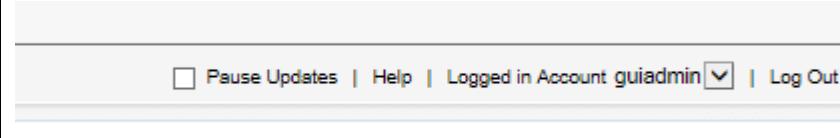
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result																																	
50.	Primary SDS VIP: Click the “Apply” dialogue button from the bottom of the screen.																																		
51.	Primary SDS VIP: The user should be presented with a banner information message stating “Data committed”.																																		
52.	Primary SDS VIP: Select... Main Menu → Alarms & Events → View Active ...as shown on the right.	 <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 ED1</td> </tr> <tr> <td>16</td> <td>31283</td> <td>2016-06-05 11:38:28.348 ED1</td> </tr> <tr> <td>63</td> <td>10200</td> <td>Lost Communication with server</td> </tr> <tr> <td>60</td> <td>14101</td> <td>2016-06-05 11:38:23.040 ED1</td> </tr> <tr> <td>2</td> <td>32532</td> <td>Remote Database re-initialization in progress</td> </tr> <tr> <td>25</td> <td>32532</td> <td>2016-06-05 10:40:40.471 ED1</td> </tr> <tr> <td>1</td> <td>32532</td> <td>No Remote Connections</td> </tr> <tr> <td>1</td> <td>32532</td> <td>2016-06-05 10:31:42.583 ED1</td> </tr> <tr> <td>1</td> <td>32532</td> <td>Server Upgrade Pending Accept/Reject</td> </tr> <tr> <td>1</td> <td>32532</td> <td>2016-06-05 09:38:07.517 ED1</td> </tr> </tbody> </table>	Seq #	Event ID	Timestamp	68	31283	2016-06-05 11:38:28.354 ED1	16	31283	2016-06-05 11:38:28.348 ED1	63	10200	Lost Communication with server	60	14101	2016-06-05 11:38:23.040 ED1	2	32532	Remote Database re-initialization in progress	25	32532	2016-06-05 10:40:40.471 ED1	1	32532	No Remote Connections	1	32532	2016-06-05 10:31:42.583 ED1	1	32532	Server Upgrade Pending Accept/Reject	1	32532	2016-06-05 09:38:07.517 ED1
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Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result
53.	<p>SDS VIP: Verify that Event ID 10200 (Remote Database re-initialization in progress) is present with the Query Server hostname in the “Instance” field..</p>	
	 <p>MONITOR EVENT ID 10200 (Remote Database re-initialization in progress). DO NOT PROCEED TO THE NEXT STEP UNTIL THE ALARM CLEAR IS RECEIVED.</p>	
54.	<p><input type="checkbox"/> Primary SDS VIP: Select...</p> <p>Main Menu → Status & Manage → Server</p> <p>...as shown on the right.</p>	
55.	<p><input type="checkbox"/> Primary SDS VIP: 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>	

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

Step	Procedure	Result
56.	<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>NOTE: The user may need to use the vertical scroll-bar in order to make the “Restart” dialogue button visible.</p>	 <p>The screenshot shows the SDS NOAM interface with the 'Servers' list on the left. The 'qs-sds-1' entry is highlighted. Below the list are buttons for 'Stop', 'Restart', 'Reboot', 'NTP Sync', and 'Report'. A 'Message from webpage' dialog box is open, asking 'Are you sure you wish to restart application software on the following server(s)? qs-sds-1'. The 'OK' button is highlighted.</p>  <p>The screenshot shows the 'Main Menu: Status & Manage -> Server' table. A green banner at the top of the table says 'qs-sds-1: Successfully restarted application.' The table has columns for 'Server Hostname', 'Network Element', 'Appl State', 'Alm', 'DB', 'Reporting Status', and 'Proc'. The 'Appl State' column for 'qs-sds-1' shows 'Enabled'.</p>
57.	<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>	 <p>The screenshot shows the 'Main Menu: Status & Manage -> Server' table. A green banner at the top of the table says 'qs-sds-1: Successfully restarted application.' The table has columns for 'Server Hostname', 'Network Element', 'Appl State', 'Alm', 'DB', 'Reporting Status', and 'Proc'. The 'Appl State' column for 'qs-sds-1' shows 'Enabled'.</p>
58.	<p>Primary SDS VIP:</p> <p>Click the “Logout” link on the SDS server GUI.</p>	 <p>The screenshot shows the bottom navigation bar of the SDS NOAM interface. It includes links for 'Pause Updates', 'Help', 'Logged in Account guiaadmin', and 'Log Out'.</p>

5.4 OAM Installation for the DR SDS NOAM site

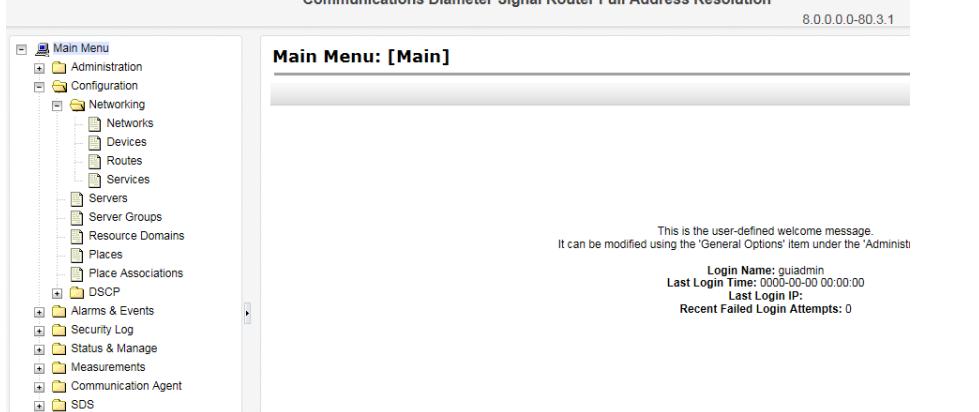
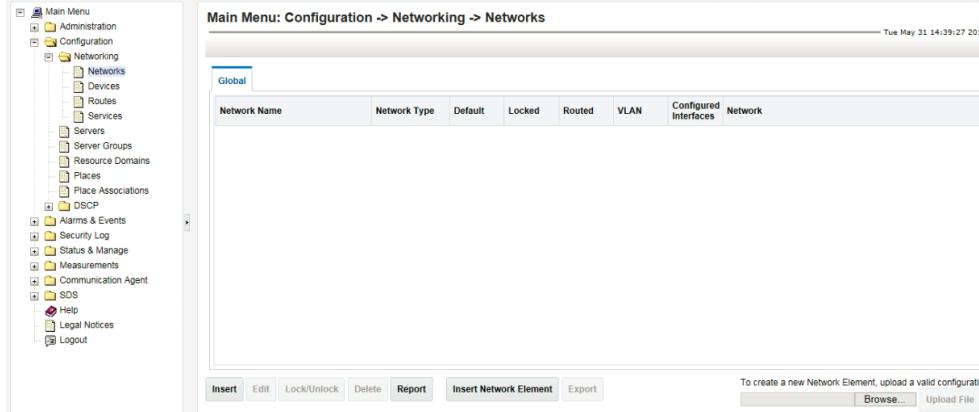
Assumptions:

- 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.

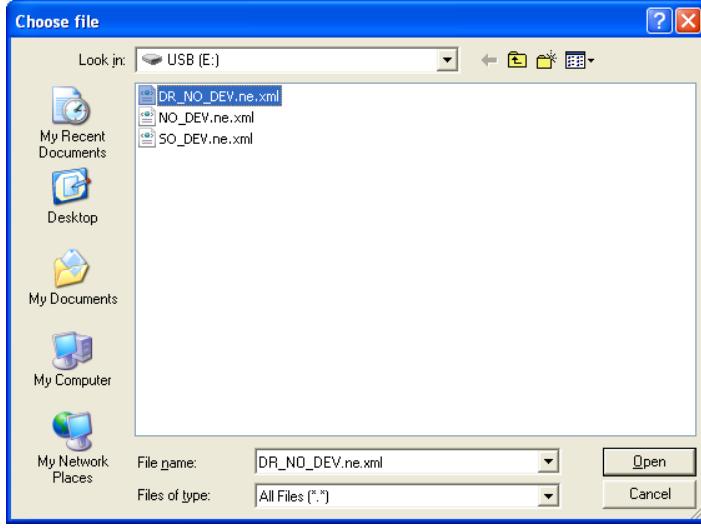
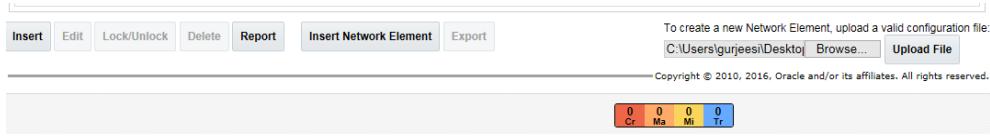
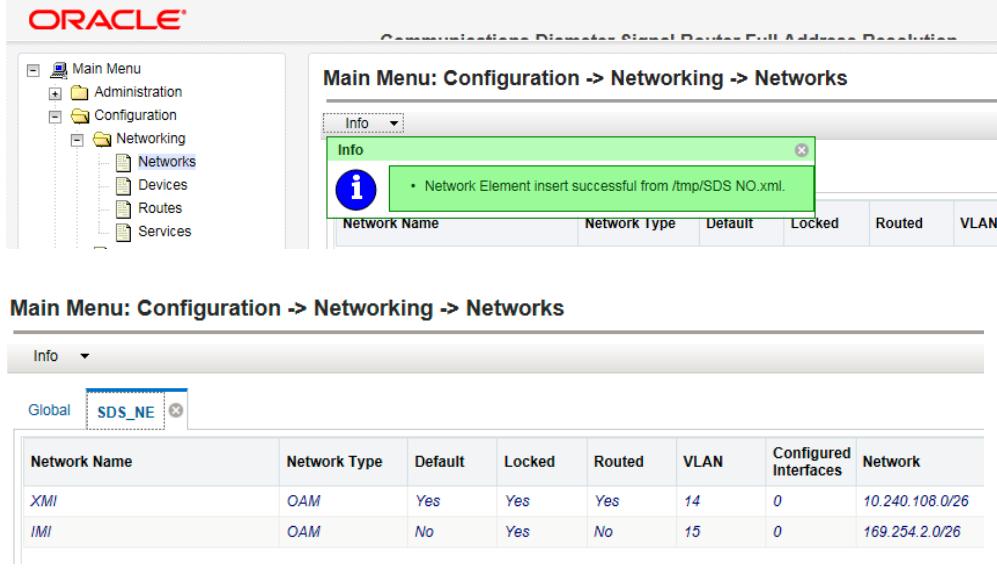
Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
1.	<p>Primary SDS VIP: <input type="checkbox"/> Launch an approved web browser and connect to the XML Virtual IP Address (VIP) of the Active SDS site</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>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 server. Security certificate problems may indicate an attempt to fool you or intercept your data.</p> <p>We recommend that you close this webpage and do not continue to this website.</p> <p> <input checked="" type="checkbox"/> Click here to close this webpage. <input type="checkbox"/> Continue to this website (not recommended). <input type="checkbox"/> More information </p>
2.	<p>Primary SDS VIP: <input type="checkbox"/> 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>Oracle System Login</p> <p>Tue May 31 14:34:34 2016 EDT</p> <div style="border: 1px solid #ccc; padding: 10px; width: fit-content; margin: 10px auto;"> <p style="text-align: center;">Log In</p> <p style="text-align: center;">Enter your username and password to log in</p> <p style="text-align: center;">Username: <input type="text"/></p> <p style="text-align: center;">Password: <input type="password"/></p> <p style="text-align: center;"><input type="checkbox"/> Change password</p> <p style="text-align: center;">Log In</p> </div> <p>Welcome to the Oracle System Login.</p> <p>This application is designed to work with most modern HTML5 compliant browsers and uses both JavaScript and cookies. Please refer to the Oracle Software Web Browser Support Policy for details.</p> <p>Unauthorized access is prohibited.</p> <hr/> <p><small>Oracle and Java are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.</small></p> <p><small>Copyright © 2010, 2016, Oracle and/or its affiliates. All rights reserved.</small></p>

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

Step	Procedure	Result								
3.	<p>Primary SDS VIP: <input type="checkbox"/> The user should be presented the SDS Main Menu as shown on the right.</p>	 <p>Communications Diameter Signal Router Full Address Resolution 8.0.0.0-80.3.1</p> <p>Main Menu: [Main]</p> <p>This is the user-defined welcome message. It can be modified using the 'General Options' item under the 'Administ...' menu.</p> <p>Login Name: guidadmin Last Login Time: 0000-00-00 00:00:00 Last Login IP: Recent Failed Login Attempts: 0</p>								
4.	<p>Primary SDS VIP: <input type="checkbox"/> Select... <u>Main Menu</u> → Configuration → Network Elements ...as shown on the right.</p>	 <p>Main Menu: Configuration -> Networking -> Networks Tue May 31 14:39:27 2011</p> <p>Main Menu: Configuration -> Networking -> Networks</p> <p>Global</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> </table> <p>Insert Edit Lock/Unlock Delete Report Insert Network Element Export</p> <p>To create a new Network Element, upload a valid configuration file Browse... Upload File</p>	Network Name	Network Type	Default	Locked	Routed	VLAN	Configured Interfaces	Network
Network Name	Network Type	Default	Locked	Routed	VLAN	Configured Interfaces	Network			
5.	<p>Primary SDS VIP: <input type="checkbox"/> From the Configuration / Network Elements screen... Select the “Browse” dialogue button (scroll to bottom left corner of screen).</p>	 <p>Insert Edit Lock/Unlock Delete Report Insert Network Element Export</p> <p>To create a new Network Element, upload a valid configuration file Browse... Upload File</p> <p>Copyright © 2010, 2016, Oracle and/or its affiliates. All rights reserved.</p> <p>0 Cr 0 Ma 0 Mi 0 Tr</p>								

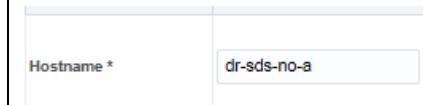
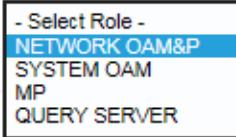
Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
6.	<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>	
7.	<p>Primary SDS VIP:</p> <p>Select the “Upload File” dialogue button (bottom left corner of screen).</p>	
8.	<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>	

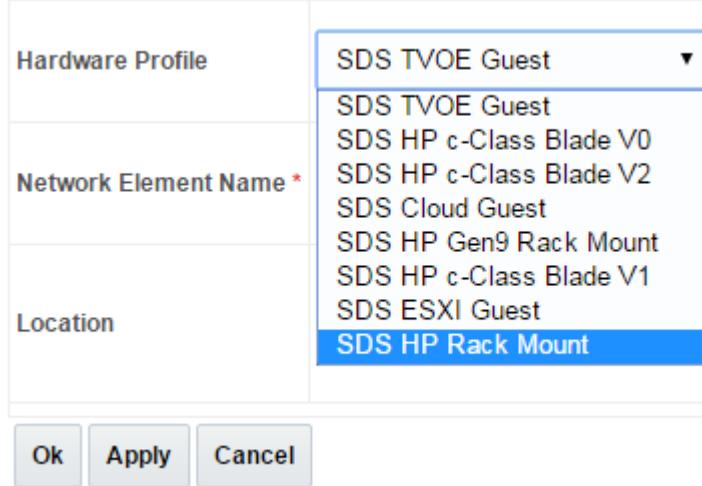
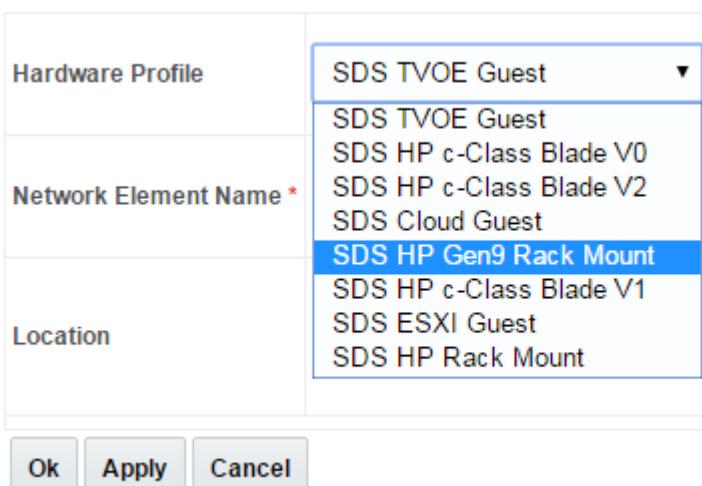
Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result																					
9.	<p>Primary SDS VIP:</p> <p>1) Select... 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>	<table border="1"> <caption>Main Menu: Configuration > Servers</caption> <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													
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sds-no-b	Network OAM&P																						
qs-sds-1	Query Server																						
10.	<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"> <tr> <th>Attribute</th> <th>Value</th> <th>Description</th> </tr> <tr> <td>Hostname *</td> <td><input type="text"/></td> <td>Unique or value is </td> </tr> <tr> <td>Role *</td> <td><input type="button" value="Select Role"/></td> <td>Select the role for the server</td> </tr> <tr> <td>System ID</td> <td><input type="text"/></td> <td>System ID for the server</td> </tr> <tr> <td>Hardware Profile</td> <td><input type="button" value="SDS HP Rack Mount"/></td> <td>Hardware profile for the server</td> </tr> <tr> <td>Network Element Name *</td> <td><input type="button" value="Unassigned"/></td> <td>Select the name for the server</td> </tr> <tr> <td>Location</td> <td><input type="text"/></td> <td>Location of the server</td> </tr> </table> <p>Ok Apply Cancel</p>	Attribute	Value	Description	Hostname *	<input type="text"/>	Unique or value is	Role *	<input type="button" value="Select Role"/>	Select the role for the server	System ID	<input type="text"/>	System ID for the server	Hardware Profile	<input type="button" value="SDS HP Rack Mount"/>	Hardware profile for the server	Network Element Name *	<input type="button" value="Unassigned"/>	Select the name for the server	Location	<input type="text"/>	Location of the server
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Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

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

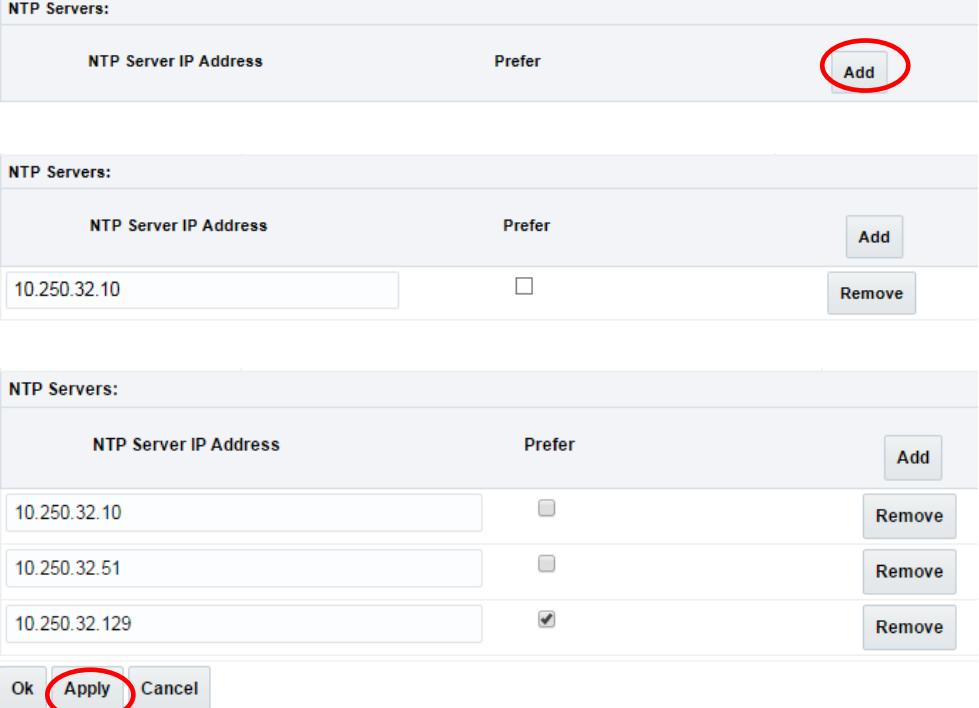
Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
14.	<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> 
15.	<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																						
16.	Primary SDS VIP: Enter the site location.	 <p>NOTE: Location is an optional field.</p>																						
17.	SDS Server NOAM A: 1) Enter the MgmtVLAN IP address for the DR SDS Server. 2) Set the MgmtVLAN Interface to “bond0” and “check” the VLAN checkbox. 3) Enter the IMI IP address for the DR SDS Server. 4) Set the IMI Interface to “bond0” and “check” the VLAN checkbox.	 <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></td> </tr> <tr> <td>IMI</td> <td>169.254.100.14</td> <td></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></td> </tr> <tr> <td>IMI</td> <td>169.254.100.15</td> <td></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		
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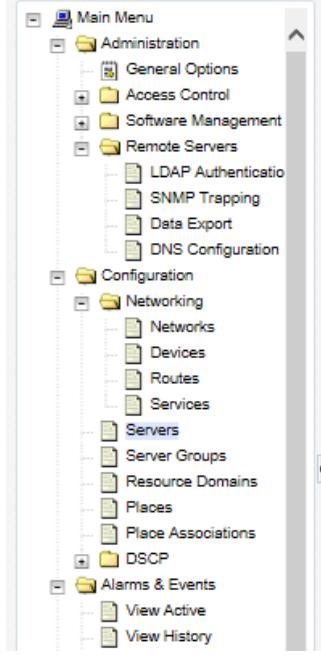
Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result																		
18.	<p>1) Enter the customer assigned XMI IP address for the DR SDS 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>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>DR SDS NOAM Server (A or B)</td><td>XMI</td><td>No</td><td>bond1</td><td>X</td></tr> <tr> <td></td><td></td><td>Yes</td><td>bond0</td><td>✓</td></tr> </tbody> </table> <p>!!! CAUTION!!! <i>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.</i></p>	SDS Server (DR NOAM)	Network	VLAN tagging (on XMI network)	Interface	VLAN Checkbox	DR SDS NOAM Server (A or B)	XMI	No	bond1	X			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	X																
		Yes	bond0	✓																
19.	<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 the NTP Server configuration dialog with three main sections:</p> <ul style="list-style-type: none"> Step 1: Shows the "Add" button circled in red. Step 2: Shows the IP address "10.250.32.10" entered in the "NTP Server IP Address" field, with the "Prefer" checkbox empty and the "Remove" button visible. Step 3: Shows three servers listed: "10.250.32.10", "10.250.32.51", and "10.250.32.129". The "Prefer" checkbox is checked for the last server, and the "Remove" button is visible for each. <p>At the bottom, the "Apply" button is circled in red, and the "Ok" and "Cancel" buttons are also visible.</p>																		

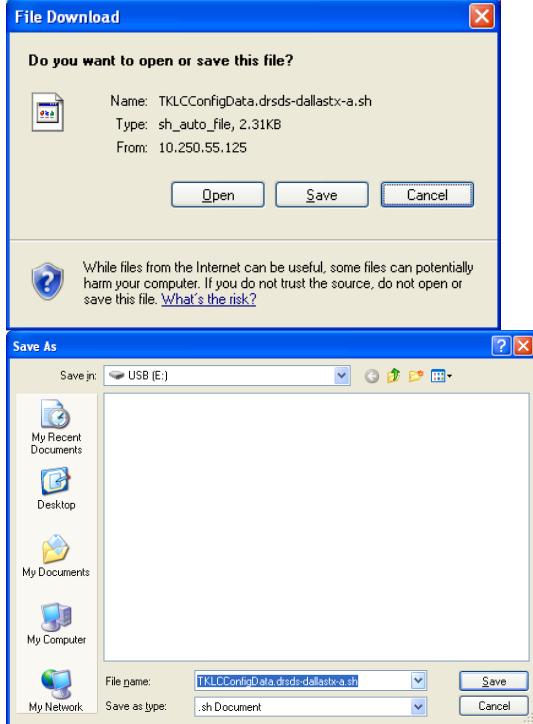
Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
20.	<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>Main Menu: Configuration -> Servers [Insert]</p>
21.	<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>

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

Step	Procedure	Result																																								
22. <input type="checkbox"/>	<p>Primary SDS VIP: Select...</p> <p>Main Menu → Configuration → Servers</p> <p>...as shown on the right.</p>	 <p>Main Menu: Configuration -> Servers</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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23. <input type="checkbox"/>	<p>Primary SDS VIP: On the “Configuration →Servers” screen, find the newly added DR NOAM server in the list.</p>	<p>Main Menu: Configuration -> Servers</p> <p>Sun Jun 05 15:13:23 2016</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>XMI: 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>XMI: 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>XMI: 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>XMI: 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		XMI: 10.240.108.18 IMI: 169.254.2.8	sds-no-b	Network OAM&P	sds-no-b	sds_no_grp	SDS_NE	Bangalore		XMI: 10.240.108.21 IMI: 169.254.2.11	qs-sds-1	Query Server		sds_no_grp	SDS_NE	Bangalore		XMI: 10.240.108.23 IMI: 169.254.2.12	dr-sds-no-a	Network OAM&P	dr-sds-no-a		SDS_NE	Bangalore		XMI: 10.240.108.13 IMI: 169.254.2.3
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24. <input type="checkbox"/>	<p>Primary SDS VIP: Use the cursor to select the new DR NOAM server entry added in the Steps10 - 21.</p> <p>The row containing the server should now be highlighted.</p>	<p>Main Menu: Configuration -> Servers</p> <p>Sun Jun 05 15:13:2</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>XMI: 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>XMI: 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>XMI: 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>XMI: 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		XMI: 10.240.108.18 IMI: 169.254.2.8	sds-no-b	Network OAM&P	sds-no-b	sds_no_grp	SDS_NE	Bangalore		XMI: 10.240.108.21 IMI: 169.254.2.11	qs-sds-1	Query Server		sds_no_grp	SDS_NE	Bangalore		XMI: 10.240.108.23 IMI: 169.254.2.12	dr-sds-no-a	Network OAM&P	dr-sds-no-a		SDS_NE	Bangalore		XMI: 10.240.108.13 IMI: 169.254.2.3
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25. <input type="checkbox"/>	<p>Primary SDS VIP: Select the “Export” dialogue button (bottom left corner of screen).</p>	<table border="1"> <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>XMI: 10.240.108.13 IMI: 169.254.2.3</td> </tr> </table> <p>Insert Edit Delete Export Report</p>	dr-sds-no-a	Network OAM&P	dr-sds-no-a		SDS_NE	Bangalore		XMI: 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
26.	<p>Primary SDS VIP: <input type="checkbox"/> 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>Main Menu: Configuration -> Servers</p> 
27.	<p>Primary SDS VIP:</p> <ol style="list-style-type: none"> 1) Click the "Save" dialogue button. 2) Save the SDS DR NOAM server configuration file to a USB flash drive. 	
28.	<p>SDS DR NOAM Server: <input type="checkbox"/> 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
29. <input type="checkbox"/>	SDS DR NOAM Server: 1) Access the command prompt. 2) Log into the server as the "admusr" user.	login: admusr Using keyboard-interactive authentication. Password: <admusr_password>
30. <input type="checkbox"/>	SDS DR NOAM Server: Insert the USB flash drive containing the server configuration file into the USB port on the front panel of the server.	 Figure 3 - HP DL380 Gen8, Front Panel (USB Port)  Figure 4 - HP DL380 Gen9, Front Panel (USB Port)
31. <input type="checkbox"/>	SDS DR NOAM Server: Output similar to that shown on the right will appear as the USB flash drive is inserted into the SDS Server front USB port.	<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>
32. <input type="checkbox"/>	SDS DR NOAM Server: Verify that the USB flash drive's partition has been mounted by the OS	<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
33. <input type="checkbox"/>	SDS DR NOAM Server: Copy the configuration file to the SDS server with the server name as shown in red	<pre>\$ sudo cp -p /media/sdb1/TKLCConfigData.dr-sds-no-a.sh /var/TKLC/db/filemgmt/.</pre>
34. <input type="checkbox"/>	SDS DR NOAM Server: 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>Example: TKLCConfigData<.server_hostname>.sh → will translate to →TKLCConfigData.sh</p> <pre>\$ sudo cp -p /var/TKLC/db/filemgmt/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>
35. <input type="checkbox"/>	SDS DR NOAM Server: After the script completes, a broadcast message will be sent to the terminal.	<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. <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>
36. <input type="checkbox"/>	SDS DR NOAM Server: Remove the USB flash drive from the USB port on the front panel of OAM server . CAUTION: It is important that the USB flash drive be removed from the server before continuing on to the next step.	 <p>Figure 3 - HP DL380 Gen8, Front Panel (USB Port)</p>  <p>Figure 4 - HP DL380 Gen9, Front Panel (USB Port)</p>

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

Step	Procedure	Result
37.	SDS Server NOAM A or B: Verify that the desired Time Zone is currently in use.	\$ date Mon Aug 10 19:34:51 UTC 2015
38. <input type="checkbox"/>	SDS Server NOAM A or B: If the desired Time Zone was not presented in the previous step... Configure the Time Zone. Otherwise, skip to the next step.	Example: \$ sudo set_ini_tz.pl <time_zone> NOTE: The following command example sets the time to the "UTC" (aka GMT) time zone which is recommended for all sites. The user may replace, as appropriate, with the customer requested time zone for this site installation. See Appendix G for a list of valid time zones. \$ sudo set_ini_tz.pl "Etc/UTC"
39. <input type="checkbox"/>	Server NOAM A: Initiate a reboot of the OAM server.	\$ sudo init 6
40. <input type="checkbox"/>	SDS DR NOAM Server: Wait ~9 minutes Output similar to that shown on the right may be observed as the server initiates a reboot.	<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 avoid conflicts. 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>
41. <input type="checkbox"/>	SDS DR NOAM Server: 1) After the reboot, access the command prompt. 2) Log into the server as the "admusr" user.	login: admusr Using keyboard-interactive authentication. Password: <admusr_password>

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

Step	Procedure	Result
42.	SDS DR NOAM Server: 1) Verify that the IMI IP address input in Step 18 has been applied to “ bond0.4 ”. 2) Verify that the XMI IP address input in Step 17 has been applied to “ bond1 ”.	\$ 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
43.	SDS DR NOAM Server B: Use the “ ntpq -np ” command to verify that the server has connectivity to the assigned Primary and Secondary NTP server(s).	\$ 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



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.

44.	SDS DR NOAM Server: Execute a “ syscheck ” to verify the current health of the server.	\$ 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
-----	---	--

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

Step	Procedure	Result
45. <input type="checkbox"/>	SDS DR NOAM Server: Exit from the command line to return the server console	\$ exit logout
46. <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: <ol style="list-style-type: none"> APPENDIX D.1 APPENDIX D.2 (Appendix D.2 references Appendix D.3 where applicable). 		
47. <input type="checkbox"/>	DR SDS Server NOAM A: From DR SDS Server NOAM A , “ping” the IMI IP address DR SDS NOAM Server B .	\$ ping -c 5 169.254.100.15 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> --- 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
48. <input type="checkbox"/>	DR SDS NOAM Server(s): A & B Use “ping” to verify that the DR SDS NOAM Server can now reach the local XMI Gateway address .	\$ ping 10.250.55.161 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> --- 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

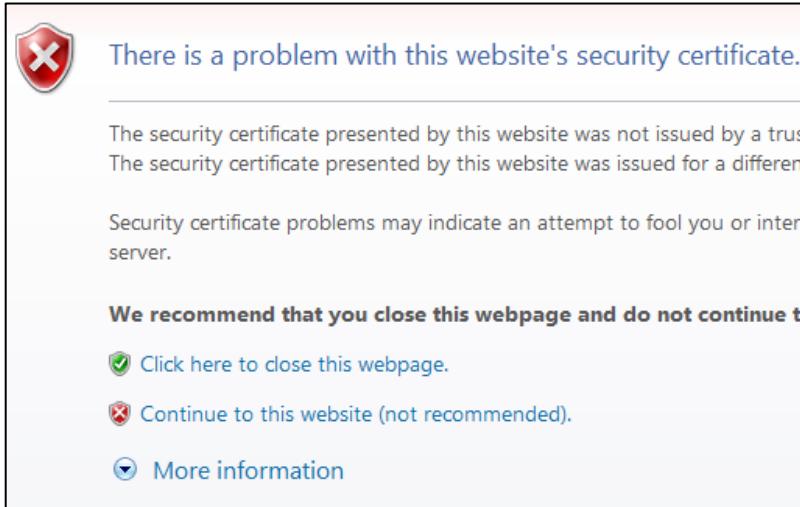
Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
49.	DR SDS Server(s): A & B Use “ping” to verify that the DR SDS Server can now reach the Primary SDS VIP address .	<pre>\$ ping -c 5 10.250.55.126 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> --- 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</pre>
THIS PROCEDURE HAS BEEN COMPLETED		

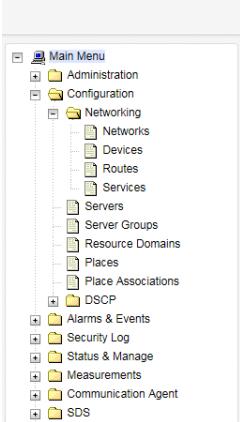
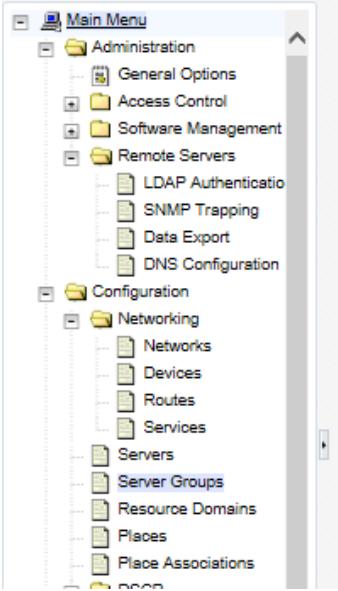
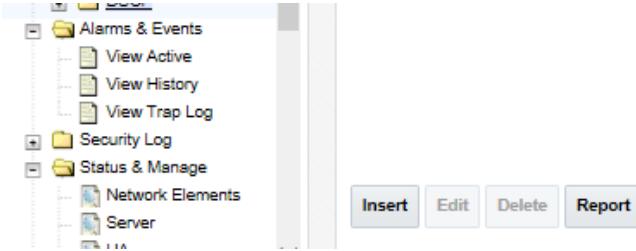
5.5 OAM Pairing for DR SDS NOAM site

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.

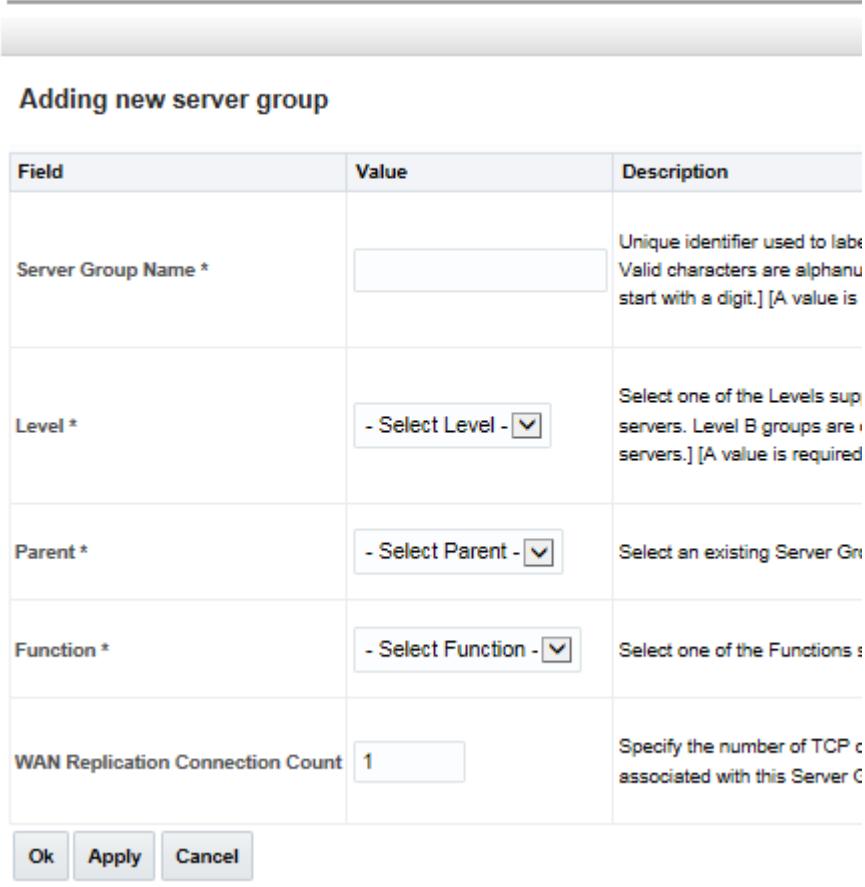
Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
1.	<p>Primary SDS VIP: <input type="checkbox"/> Launch an approved web browser and connect to the XMI Virtual IP Address (VIP) of the Active SDS site</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>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 server.</p> <p>We recommend that you close this webpage and do not continue to this website.</p> <p><input checked="" type="checkbox"/> Click here to close this webpage.</p> <p><input type="checkbox"/> Continue to this website (not recommended).</p> <p><input type="checkbox"/> More information</p>
2.	<p>Primary SDS VIP: <input type="checkbox"/> 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>ORACLE®</p> <p>Oracle System Login</p> <p>Tue May 31 14:34:34 2016 EDT</p> <p>Log In Enter your username and password to log in</p> <p>Username: <input type="text"/></p> <p>Password: <input type="password"/></p> <p><input type="checkbox"/> Change password</p> <p>Log In</p> <p>Welcome to the Oracle System Login.</p> <p>This application is designed to work with most modern HTML5 compliant browsers and uses both JavaScript and cookies. Please refer to the Oracle Software Web Browser Support Policy for details.</p> <p>Unauthorized access is prohibited.</p> <p>Oracle and Java are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.</p> <p>Copyright © 2010, 2016, Oracle and/or its affiliates. All rights reserved.</p>

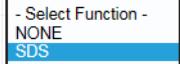
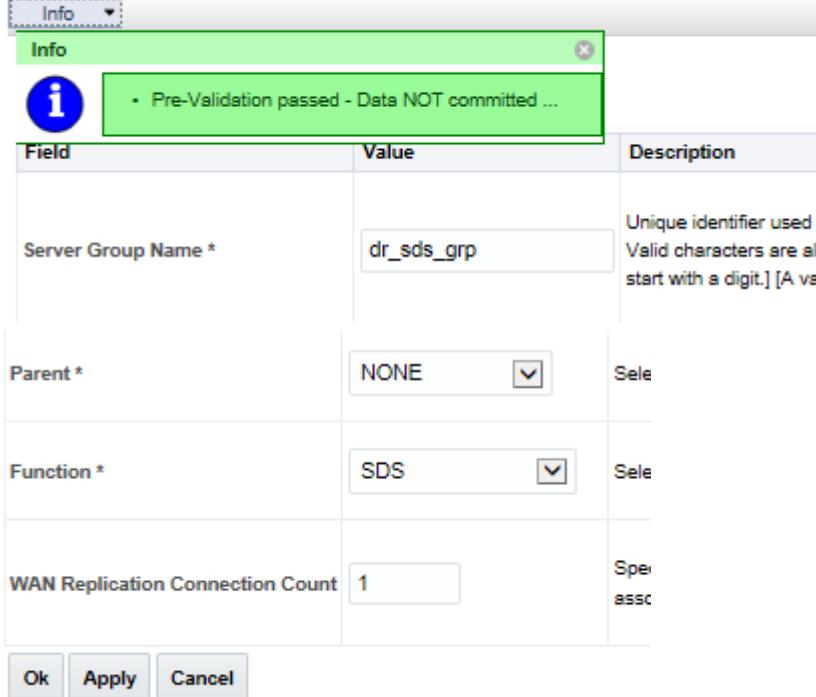
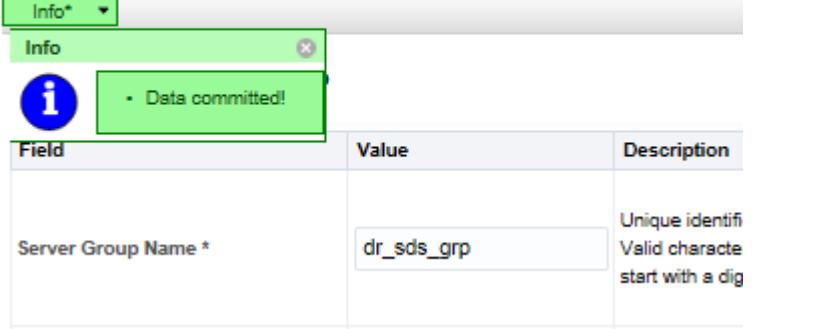
Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result																												
3.	<p>Primary SDS VIP: <input type="checkbox"/> The user should be presented the SDS Main Menu as shown on the right.</p>	 <p>Communications Diameter Signal Router Full Address Resolution 8.0.0.0-80.3.1</p> <p>Main Menu: [Main]</p> <p>This is the user-defined welcome message. It can be modified using the 'General Options' item under the 'Administration' menu.</p> <p>Login Name: guidadmin Last Login Time: 0000-00-00 00:00:00 Last Login IP: Recent Failed Login Attempts: 0</p>																												
4.	<p>Primary SDS VIP: <input type="checkbox"/> Select... Main Menu → Configuration → Server Groups ...as shown on the right.</p>	 <p>Main Menu: Configuration > Server Groups</p> <table border="1"> <thead> <tr> <th>Filter*</th> <th>▼</th> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Conn Count</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>sds_no_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>1</td> </tr> </tbody> </table>	Filter*	▼	Server Group Name	Level	Parent	Function	Conn Count			sds_no_grp	A	NONE	SDS	1														
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5.	<p>Primary SDS VIP: 1) The user will be presented with the “Server Groups” configuration screen as shown on the right. 2) Select the “Insert” dialogue button from the bottom left corner of the screen.</p>	<p>Main Menu: Configuration > Server Groups</p> <p>Sun Jun 05 15:28:42 2016</p> <table border="1"> <thead> <tr> <th>Filter*</th> <th>▼</th> <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></td> <td></td> <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> 	Filter*	▼	Server Group Name	Level	Parent	Function	Connection Count	Servers			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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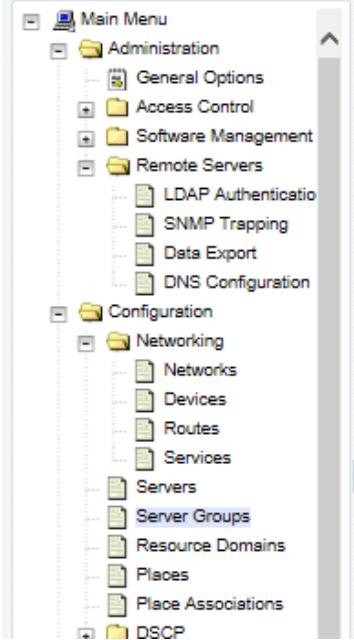
Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result						
6.	<p>Primary SDS VIP: <input type="checkbox"/> 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> 						
7.	<p>Primary SDS VIP: <input type="checkbox"/> 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 to label this Server Group. Valid characters are alphanumeric and start with a digit.] [A value is required.]</td></tr> </tbody> </table>	Field	Value	Description	Server Group Name *	dr_sds_grp	Unique identifier used to label this Server Group. Valid characters are alphanumeric and start with a digit.] [A value is required.]
Field	Value	Description						
Server Group Name *	dr_sds_grp	Unique identifier used to label this Server Group. Valid characters are alphanumeric and start with a digit.] [A value is required.]						
8.	<p>Primary SDS VIP: <input type="checkbox"/> Select “A” on the “Level” pull-down menu.</p>	<table border="1"> <tbody> <tr> <td>Level *</td><td> - Select Level - A B C </td><td>Select one of the Levels supported by the SDS. Level A groups contain SDS servers. Level B groups contain SOAM servers. Level C groups contain both SDS and SOAM servers.</td></tr> </tbody> </table>	Level *	- Select Level - A B C	Select one of the Levels supported by the SDS. Level A groups contain SDS servers. Level B groups contain SOAM servers. Level C groups contain both SDS and SOAM servers.			
Level *	- Select Level - A B C	Select one of the Levels supported by the SDS. Level A groups contain SDS servers. Level B groups contain SOAM servers. Level C groups contain both SDS and SOAM servers.						
9.	<p>Primary SDS VIP: <input type="checkbox"/> Select Parent “NONE” on the pull-down menu.</p>	<table border="1"> <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>	Parent *	- Select Parent- NONE	Select an existing Server Group or NONE [A value is required.]			
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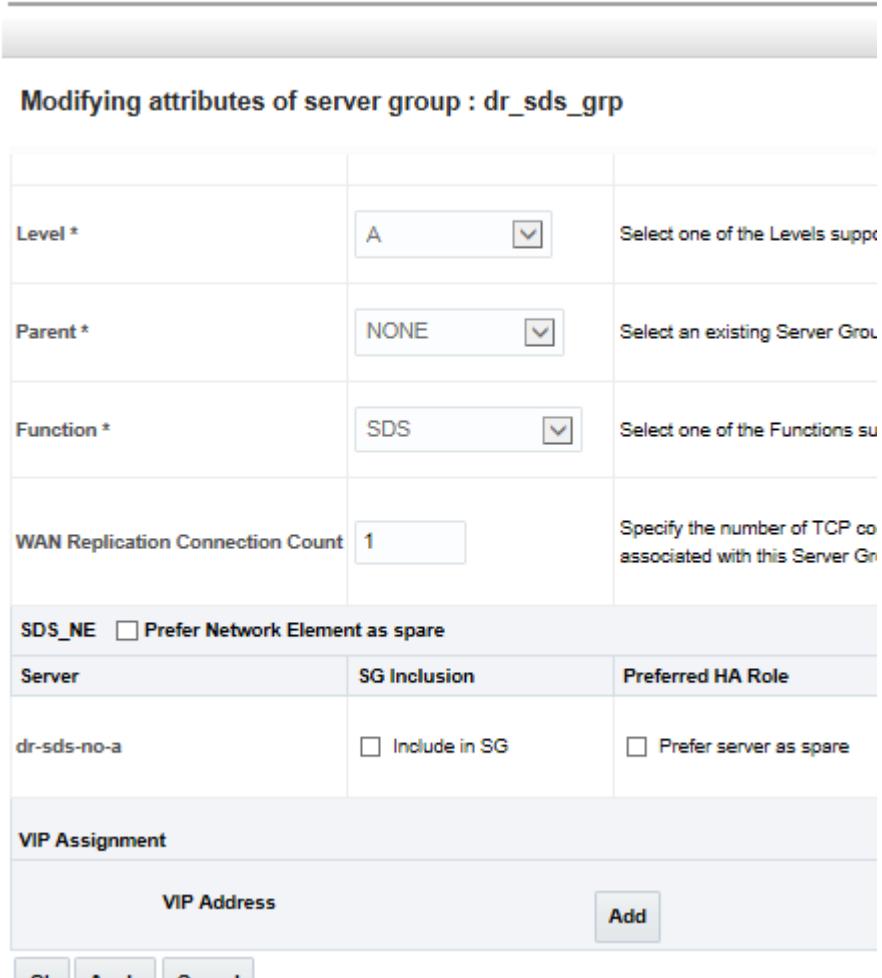
Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
10.	Primary SDS VIP: <input type="checkbox"/> Select “SDS” on the “Function” pull-down menu.	 SDS <small>Select one of the Functions supported by the system [A value is required.]</small>
11.	Primary SDS VIP: 1) The user should be presented with a banner information message stating “Pre-Validation passed”. 2) Select the “Apply” dialogue button.	<p>Main Menu: Configuration -> Server Groups [Insert]</p> 
12.	Primary SDS VIP: <input type="checkbox"/> The user should be presented with a banner information message stating “Data committed”.	<p>Main Menu: Configuration -> Server Groups [Insert]</p> 

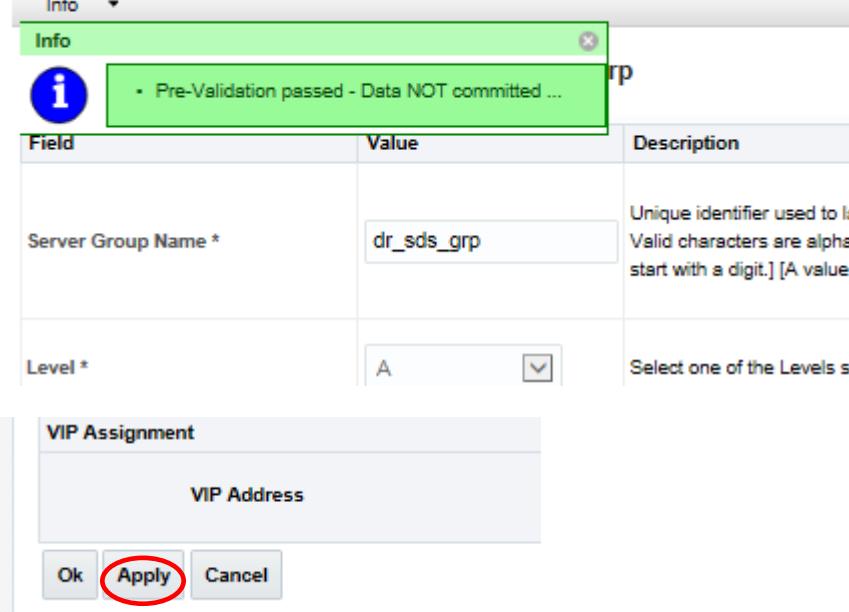
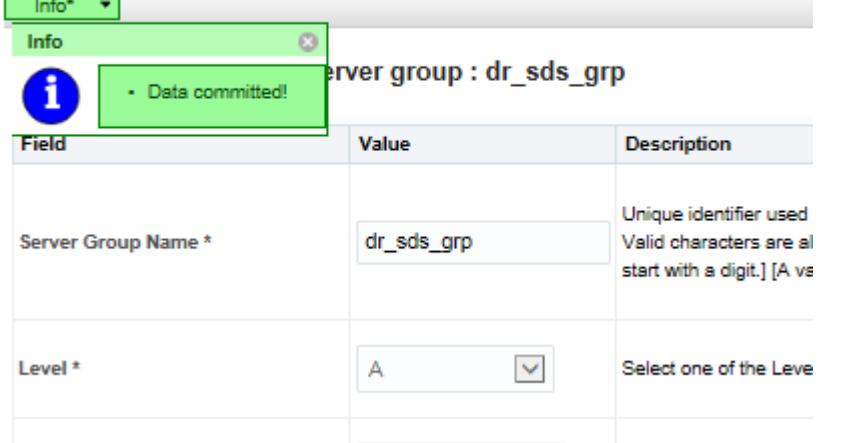
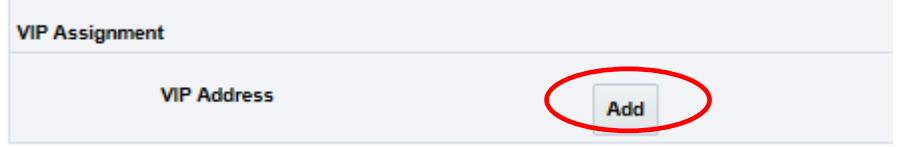
Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result																														
13.	<p>Primary SDS VIP: <input type="checkbox"/> Select...</p> <p>Main Menu → Configuration → Server Groups</p> <p>...as shown on the right.</p>	 <div> <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> </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> </div>	Server Group Name	Level	Parent	Function	dr_sds_grp	A	NONE	SDS	sds_no_grp	A	NONE	SDS																		
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14.	<p>Primary SDS VIP: <input type="checkbox"/> 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>– Sun Jun 05 15:33:11 2016</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> <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> </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	<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	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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15.	<p>Primary SDS VIP:</p> <ol style="list-style-type: none"> 1) Select the Server Group entry applied in Step 12. The line entry should now be highlighted in. 2) Select the “Edit” dialogue button from the bottom left corner of the screen. 	<p>Main Menu: Configuration -> Server Groups</p> <p>– Sun Jun 05 15:33:11 2016</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> <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> </td> </tr> </tbody> </table> <p>Insert <input type="button" value="Edit"/> Delete <input type="button" value="Report"/></p>	Server Group Name	Level	Parent	Function	Connection Count	Servers	dr_sds_grp	A	NONE	SDS	1		sds_no_grp	A	NONE	SDS	1	<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	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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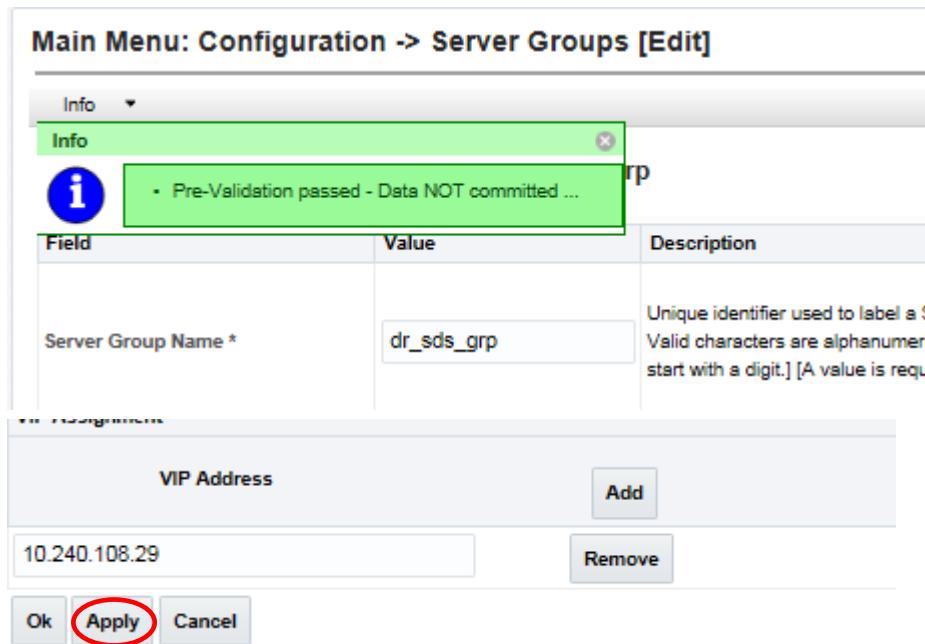
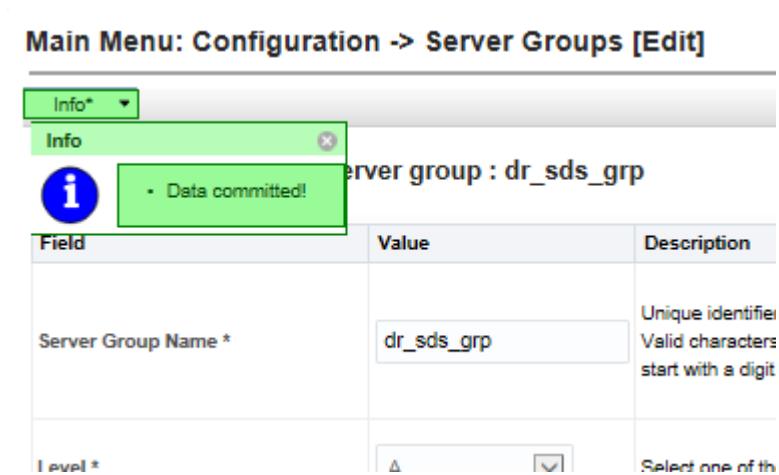
Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result						
16.	<p>Primary SDS VIP: <input type="checkbox"/> 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> 						
17.	<p>Primary SDS NOAM VIP: <input type="checkbox"/> 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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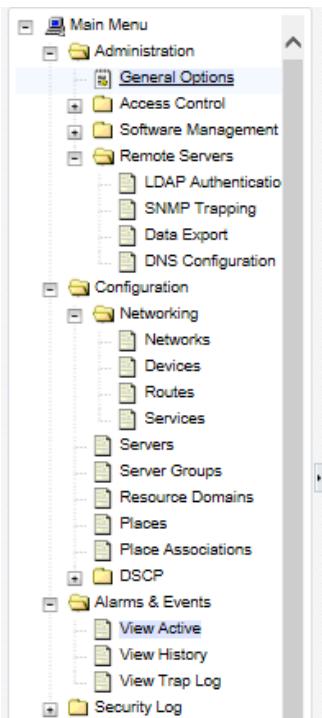
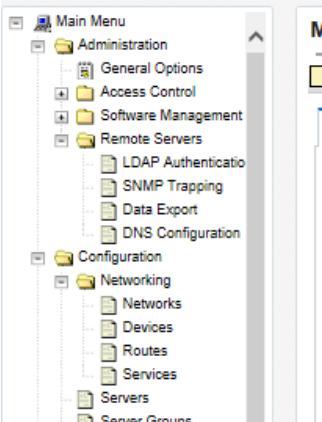
Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
18.	<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> 
19.	<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> 
20.	<p>Primary SDS NOAM VIP:</p> <p>Click the “Add” dialogue button for the VIP Address.</p>	

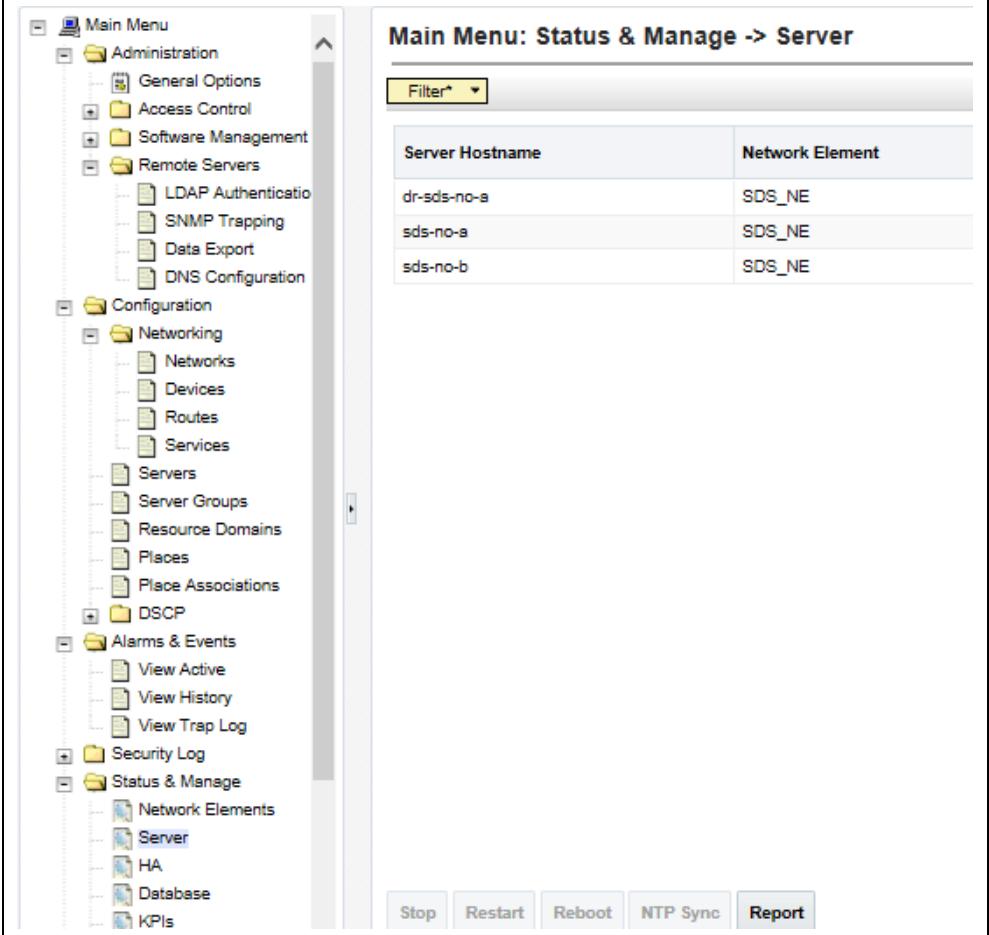
Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

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

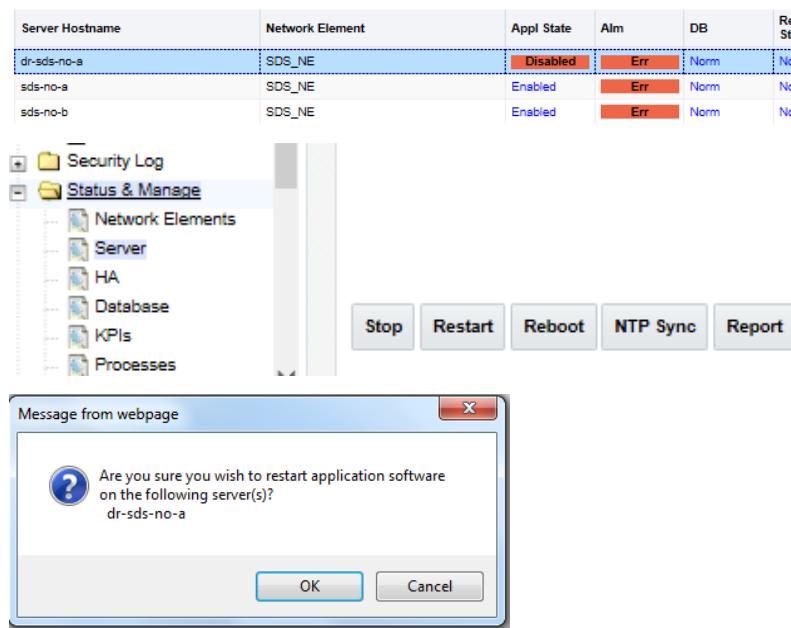
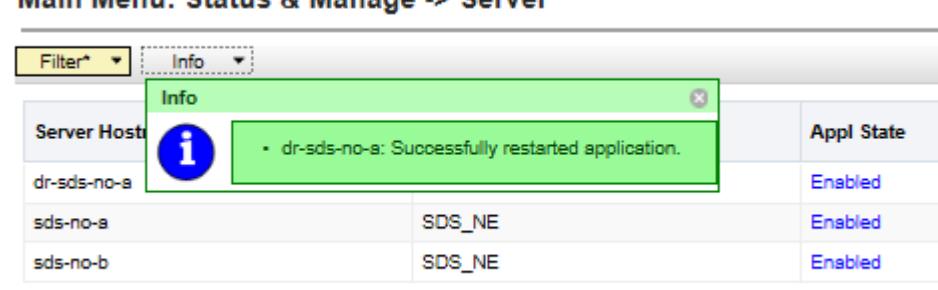
Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result																																																																								
24.	Primary SDS NOAM VIP: Select... Main Menu → Alarms & Events → View Active ...as shown on the right.	 <p>Main Menu: Alarms & Events -> View Active</p> <p>Filter* Tasks Graph* sds_no_grp</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> <tr> <th></th> <th></th> <th>Alarm Text</th> <th colspan="3">Additional Info</th> </tr> </thead> <tbody> <tr> <td>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></td> <td></td> <td>Lost Communication with server</td> <td colspan="3">GN_DOWN/WRN HA disc More...</td> </tr> <tr> <td>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></td> <td></td> <td>Lost Communication with server</td> <td colspan="3">GN_DOWN/WRN HA disc More...</td> </tr> <tr> <td>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></td> <td></td> <td>Lost Communication with server</td> <td colspan="3">GN_DOWN/WRN HA disc More...</td> </tr> <tr> <td>1719</td> <td>31107</td> <td>2016-06-05 17:58:22.148 EDT</td> <td>MAJOR</td> <td>Platform</td> <td>ineti</td> </tr> <tr> <td></td> <td></td> <td>DB Merge From Child Failure</td> <td colspan="3">GN_DOWN: Receiver Link More...</td> </tr> <tr> <td>1718</td> <td>31106</td> <td>2016-06-05 17:58:22.144 EDT</td> <td>MINOR</td> <td>Platform</td> <td>ineti</td> </tr> <tr> <td></td> <td></td> <td></td> <td colspan="3">GN_DOWN: Sender Link's</td> </tr> </tbody> </table>	Seq #	Event ID	Timestamp	Severity	Product	Pro			Alarm Text	Additional Info			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 17:58:22.148 EDT	MAJOR	Platform	ineti			DB Merge From Child Failure	GN_DOWN: Receiver Link More...			1718	31106	2016-06-05 17:58:22.144 EDT	MINOR	Platform	ineti				GN_DOWN: Sender Link's		
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25.	Primary SDS NOAM VIP: Verify that Event ID 10200 (Remote Database re-initialization in progress) alarms are present with the DR SDS NOAM Server hostnames in the "Instance" field..	 <p>Main Menu: Alarms & Events -> View Active (Filtered)</p> <p>Filter* Tasks Graph* sds_no_grp sds_so_a</p> <table border="1"> <thead> <tr> <th>Seq #</th> <th>Event ID</th> <th>Timestamp</th> <th>Severity</th> </tr> <tr> <th></th> <th></th> <th>Alarm Text</th> <th>Additional Info</th> </tr> </thead> <tbody> <tr> <td>7320</td> <td>10200</td> <td>2016-06-06 01:10:03.746 EDT</td> <td>MINOR</td> </tr> <tr> <td></td> <td></td> <td>Remote Database re-initialization in progress</td> <td>Remote</td> </tr> </tbody> </table>	Seq #	Event ID	Timestamp	Severity			Alarm Text	Additional Info	7320	10200	2016-06-06 01:10:03.746 EDT	MINOR			Remote Database re-initialization in progress	Remote																																																								
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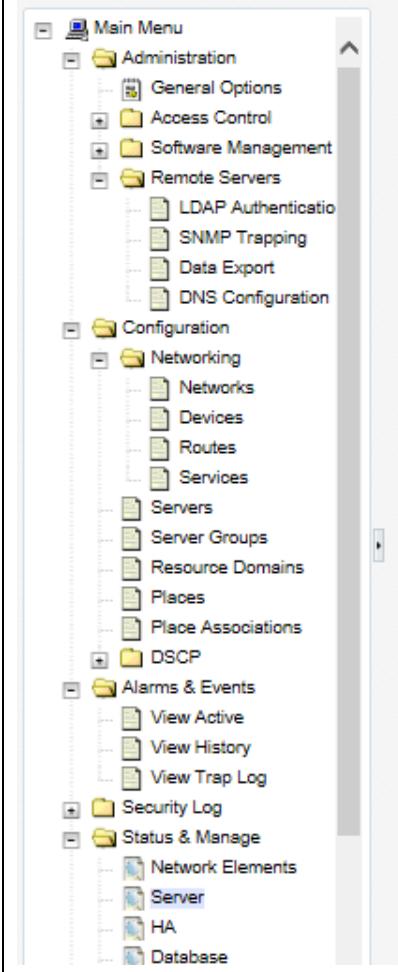
Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result																												
26. <input type="checkbox"/>	<p>Primary SDS NOAM VIP: 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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27. <input type="checkbox"/>	<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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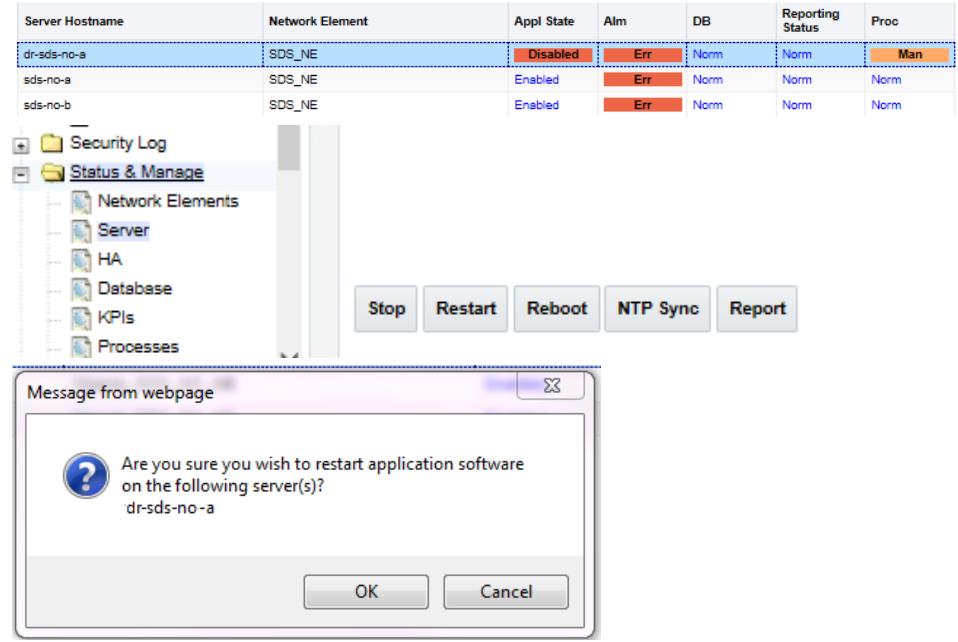
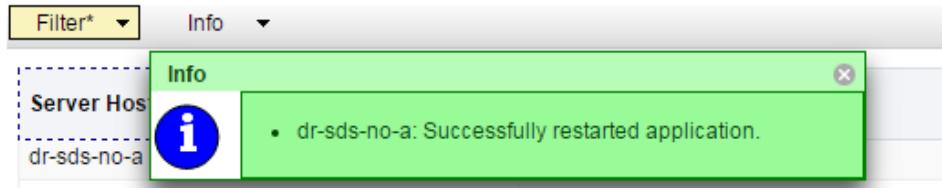
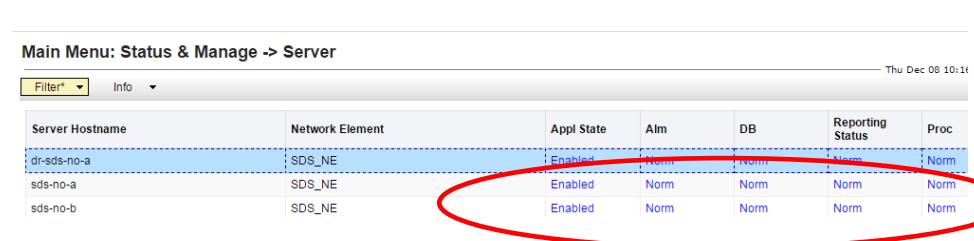
Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
28.	<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 the SDS NOAM interface. At the top, there is a table with columns: Server Hostname, Network Element, Appl State, Alm, DB, Reporting Status, and Proc. The first row (dr-sds-no-a) has Appl State as 'Disabled' and Alm as 'Err'. Below the table is a tree view under 'Status & Manage' with nodes: Security Log, Status & Manage (selected), Network Elements, Server, HA, Database, KPIs, and Processes. To the right of the tree are buttons: Stop, Restart, Reboot, NTP Sync, and Report. A 'Message from webpage' dialog box is open, asking 'Are you sure you wish to restart application software on the following server(s)? dr-sds-no-a' with OK and Cancel buttons. Below the dialog is a banner message: 'Main Menu: Status & Manage -> Server'.</p>  <p>The screenshot shows the 'Server' table. The first row (dr-sds-no-a) has an 'Info' button which is highlighted in green with the message: 'dr-sds-no-a: Successfully restarted application.' The 'Appl State' for this row is 'Enabled'. The other two rows (sds-no-a and sds-no-b) have 'Appl State' as 'Enabled'.</p>

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

Step	Procedure	Result																												
29.	<p>Primary SDS NOAM VIP:</p> <p><input type="checkbox"/> 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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30.	<p>Primary SDS NOAM VIP:</p> <p><input type="checkbox"/> 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>	<p>Main Menu: Status & Manage -> Server</p> <p>— Sun Jun 05 18:03:17 2016 EDT</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
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Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
31.	<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>Main Menu: Status & Manage -> Server</p> 
32.	<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>	
33.	<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.
THIS PROCEDURE HAS BEEN COMPLETED		

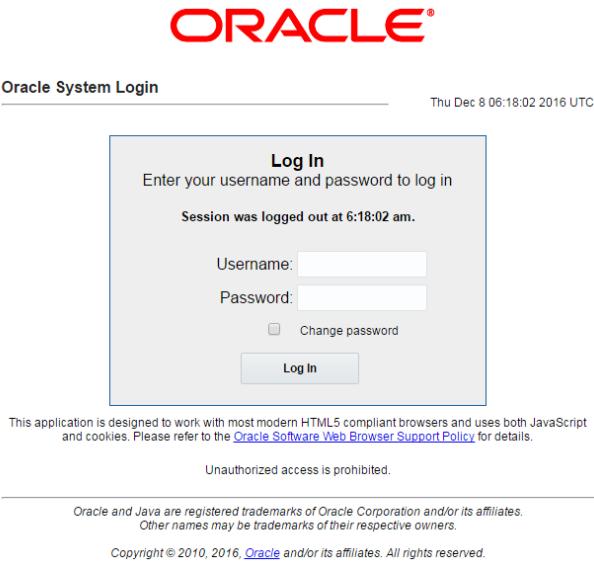
5.6 Add SDS software images to PMAC servers (All SOAM sites)

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]

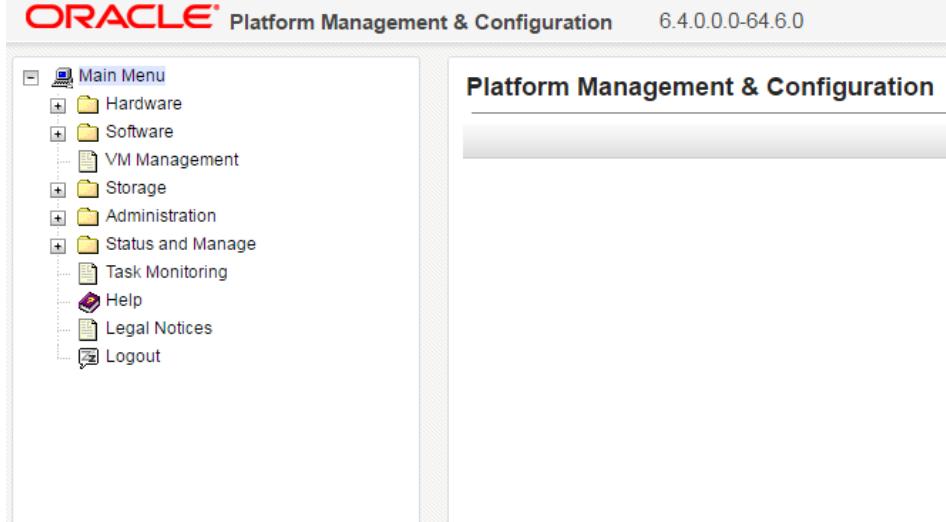
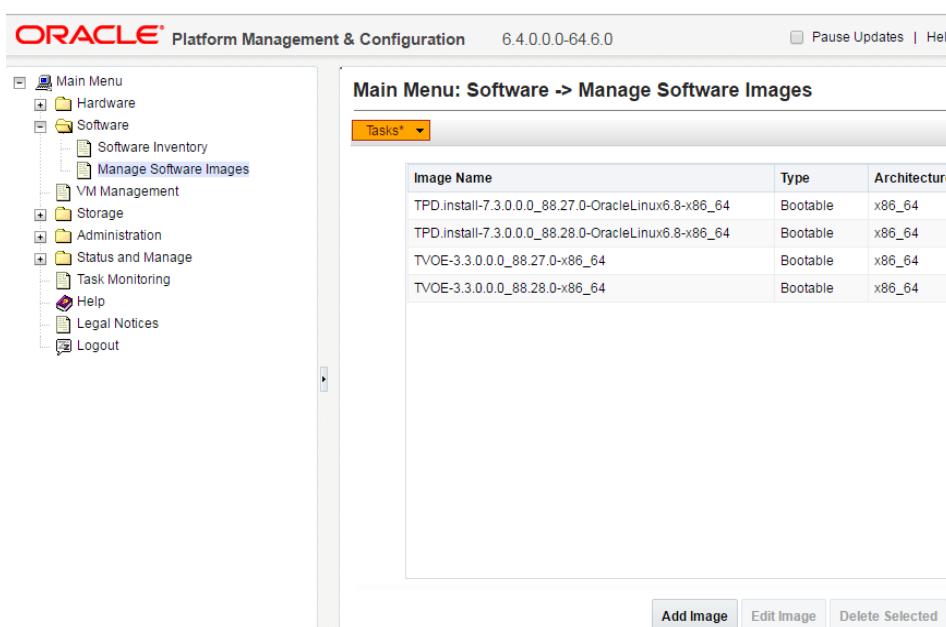
Procedure 7: Add SDS software images to PMAC servers for DSR signaling sites

Step	Procedure	Result
1.	Active SDS VIP (CLI): 1) Access the command prompt. 2) Log into the HP server as the "admusr" user.	login: admusr Using keyboard-interactive authentication. Password: <admusr_password> \$
2.	Active SDS VIP (CLI): “cd” into the /var/TKLC/upgrade/ directory.	\$ cd /var/TKLC/upgrade/ \$
3.	Active SDS VIP (CLI): Verify that the SDS ISO file is present.	\$ ls SDS-8.4.0.0.0_84.9.0-x86_64.iso \$
4.	Active SDS VIP (CLI): “sftp” the SDS ISO file to the PMAC Server as shown to the right..	\$ sftp pmacftpsr@<PMAC_Mgmt_IP_address>:/var/TKLC/upgrade/ Password: <admusr_password> Changing to: /var/TKLC/upgrade sftp> put SDS-8.4.0.0.0_84.9.0-x86_64.iso Uploading SDS-8.4.0.0.0_84.9.0-x86_64.iso to /var/TKLC/upgrade/SDS-8.4.0.0.0_84.9.0-x86_64.iso SDS-8.4.0.0.0_84.9.0-x86_64.iso 100% 853MB 53.3MB/s 00:16 \$SDS-8.4.0.0.0_84.9.0-x86_64.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
5.	<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>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>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 server.</p> <p>Security certificate problems may indicate an attempt to fool you or intercept your data.</p> <p>We recommend that you close this webpage and do not continue to this website.</p> <p> <input checked="" type="checkbox"/> Click here to close this webpage. <input type="checkbox"/> Continue to this website (not recommended). <input type="checkbox"/> More information </p>
6.	<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>	 <p>ORACLE®</p> <p>Oracle System Login</p> <p>Thu Dec 8 06:18:02 2016 UTC</p> <p>Log In Enter your username and password to log in Session was logged out at 6:18:02 am.</p> <p>Username: <input type="text"/> Password: <input type="password"/></p> <p><input type="checkbox"/> Change password</p> <p>Log In</p> <p>This application is designed to work with most modern HTML5 compliant browsers and uses both JavaScript and cookies. Please refer to the Oracle Software Web Browser Support Policy for details.</p> <p>Unauthorized access is prohibited.</p> <p>Oracle and Java are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.</p> <p>Copyright © 2010, 2016, Oracle and/or its affiliates. All rights reserved.</p>

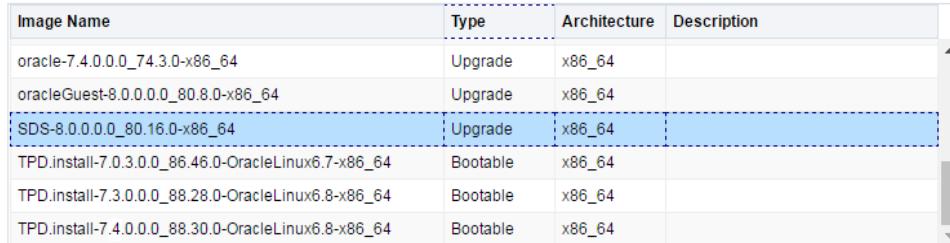
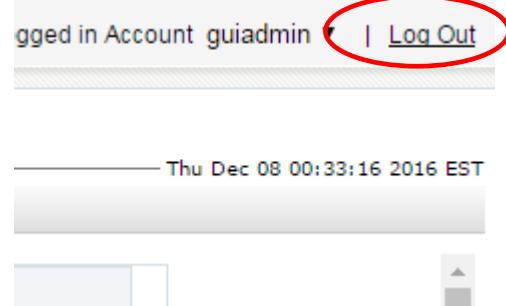
Procedure 7: Add SDS software images to PMAC servers for DSR signaling sites

Step	Procedure	Result															
7.	PMAC Server GUI: <input type="checkbox"/> The user should be presented the PMAC Main Menu as shown on the right.																
8.	PMAC Server GUI: <input type="checkbox"/> 1) Select... <u>Main Menu</u> → Software → Manage Software Images ...as shown on the right. 2) Select the “Add Image” button	 <table border="1"> <thead> <tr> <th>Image Name</th> <th>Type</th> <th>Architecture</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> </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> </tr> <tr> <td>TVOE-3.3.0.0.0_88.27.0-x86_64</td> <td>Bootable</td> <td>x86_64</td> </tr> <tr> <td>TVOE-3.3.0.0.0_88.28.0-x86_64</td> <td>Bootable</td> <td>x86_64</td> </tr> </tbody> </table>	Image Name	Type	Architecture	TPD.install-7.3.0.0.0_88.27.0-OracleLinux6.8-x86_64	Bootable	x86_64	TPD.install-7.3.0.0.0_88.28.0-OracleLinux6.8-x86_64	Bootable	x86_64	TVOE-3.3.0.0.0_88.27.0-x86_64	Bootable	x86_64	TVOE-3.3.0.0.0_88.28.0-x86_64	Bootable	x86_64
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Procedure 7: Add SDS software images to PMAC servers for DSR signaling sites

Step	Procedure	Result																																													
9.	PMAC Server GUI: 1) Click the “Path:” pull-down menu and select the SDS ISO file from the /var/TKLC/upgrade directory. 2) Add a comment if desired in the Description field. 3) Click the “Add New Image” dialogue button.	<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/smacftusr/*.iso <p>Note: CD and USB images mounted on PM&C's VM host must first be made accessible to the PM&C VM Management.</p> <p>Path: /var/TKLC/upgrade/SDS-8.0.0.0_80.16.0-x86_64.iso</p> <p>Description:</p> <p>Add New Image Cancel</p>																																													
10.	PMAC Server GUI: 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>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>																																													
11.	PMAC Server GUI: An info message will be raised to show a new background task.	<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_80.16.0-x86_64.iso will be added in the background. • The ID number for this task is: 6654. 																																													
12.	PMAC Server GUI: Watch the extraction progress in the lower task list on the same page.	<table border="1"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> <th>Status</th> <th>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></td> <td>Done: mediation-7.3.0.0.0_73.17.0-x86_64</td> <td>COMPLETE</td> <td>N/A</td> <td>0:00:22</td> <td>2016-08-06 08:46:45</td> <td>100%</td> </tr> <tr> <td>6124</td> <td>Delete Image</td> <td></td> <td>oracle-7.3.0.0.0_73.14.0-x86_64</td> <td>COMPLETE</td> <td>N/A</td> <td>0:00:00</td> <td>2016-08-06 08:46:17</td> <td>100%</td> </tr> <tr> <td>6123</td> <td>Delete Image</td> <td></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>2016-08-06 08:46:03</td> <td>100%</td> </tr> <tr> <td>6122</td> <td>Delete Image</td> <td></td> <td>apps-7.3.0.0.0_73.14.0-x86_64</td> <td>COMPLETE</td> <td>N/A</td> <td>0:00:00</td> <td>2016-08-06 08:45:45</td> <td>100%</td> </tr> </tbody> </table>	ID	Task	Target	Status	State	Task Output	Running Time	Start Time	Progress	6125	Add Image		Done: mediation-7.3.0.0.0_73.17.0-x86_64	COMPLETE	N/A	0:00:22	2016-08-06 08:46:45	100%	6124	Delete Image		oracle-7.3.0.0.0_73.14.0-x86_64	COMPLETE	N/A	0:00:00	2016-08-06 08:46:17	100%	6123	Delete Image		mediation-7.3.0.0.0_73.14.0-x86_64	COMPLETE	N/A	0:00:00	2016-08-06 08:46:03	100%	6122	Delete Image		apps-7.3.0.0.0_73.14.0-x86_64	COMPLETE	N/A	0:00:00	2016-08-06 08:45:45	100%
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Procedure 7: Add SDS software images to PMAC servers for DSR signaling sites

Step	Procedure	Result																												
13.	PMAC Server GUI: When the extraction task is complete, a new software image will be displayed.	 <table border="1"> <thead> <tr> <th>Image Name</th> <th>Type</th> <th>Architecture</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>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> <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	
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14.	PMAC Server GUI: Click the “Logout” link on the PMAC server GUI.																													
15.	PMACServer GUI: Load TPD ISO	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: <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 <code>“/var/TKLC/smac/image/isoimages/home/smacftpusr/”</code> directory as pmacftpusr user: cd into the directory where your ISO image is located on the TVOE Host (not on the PM&C server) Using sftp, connect to the PM&C server <pre>\$ sftp pmacftpusr@<pmac_management_network_ip> \$ put <image>.iso</pre> After the image transfer is 100% complete, close the connection: <pre>\$ quit</pre>																												

THIS PROCEDURE HAS BEEN COMPLETED

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.

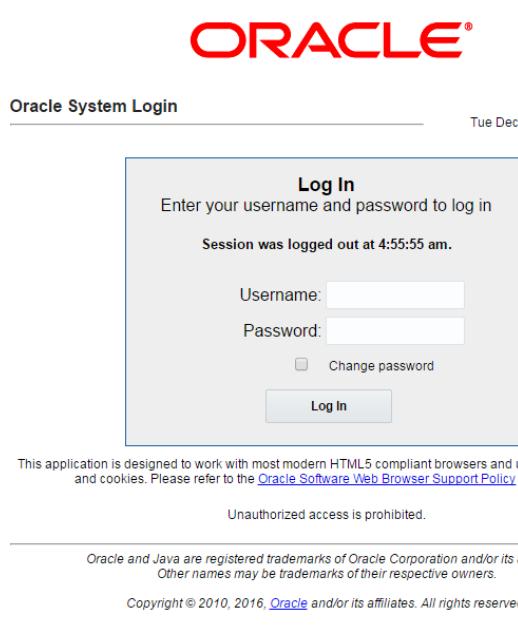
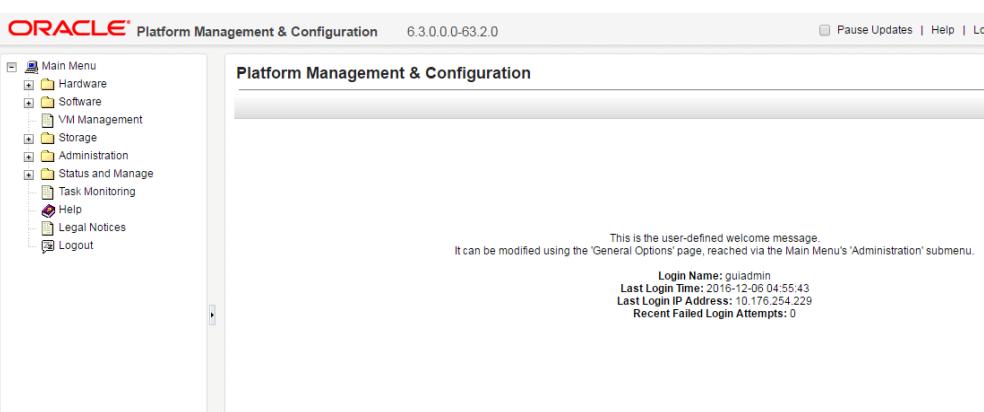
This procedure assumes that the DSR 8.2 or later OAM has already been installed in a virtual environment on the server blade, as described in [4].

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.

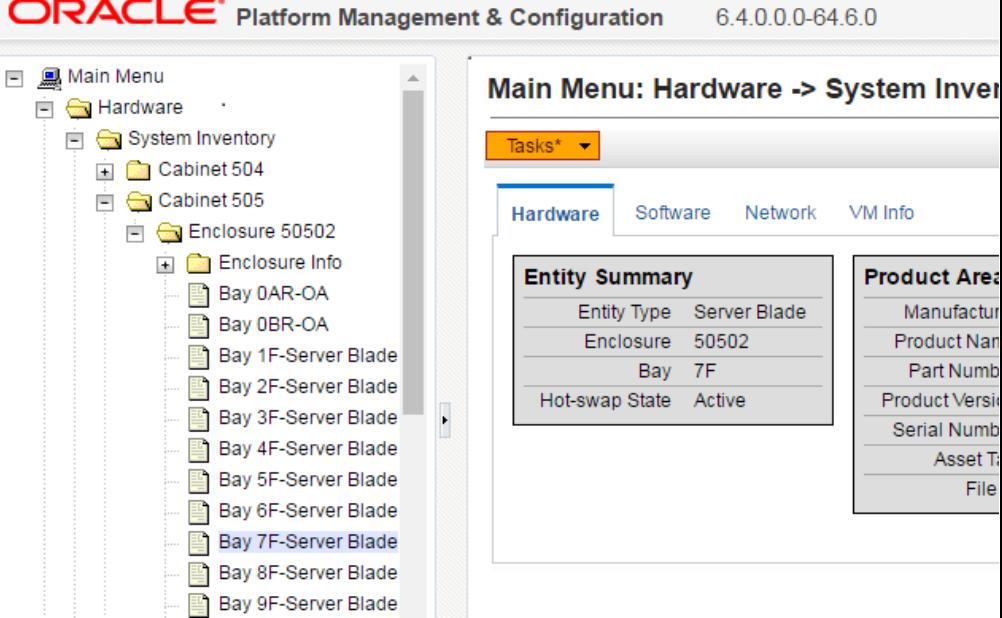
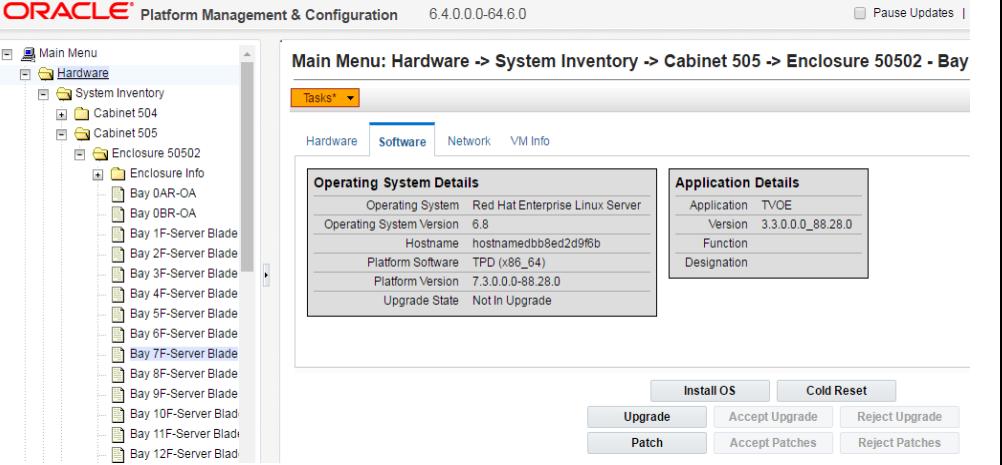
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
1. <input type="checkbox"/>	<p>PMAC Server GUI: Launch an approved web browser and connect to the Mgmt IP Address of the PMAC server at the SOAM site</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> 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 server.</p> <p>Security certificate problems may indicate an attempt to fool you or intercept your traffic.</p> <p>We recommend that you close this webpage and do not continue to this website.</p> <p><input checked="" type="checkbox"/> Click here to close this webpage.</p> <p><input type="checkbox"/> Continue to this website (not recommended).</p> <p><input type="checkbox"/> More information</p>

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

Step	Procedure	Result
2.	<p>PMAC Server GUI:</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>	
3.	<p>PMAC Server GUI:</p> <p>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
4.	<p>PMAC Server GUI: <input type="checkbox"/> Select desired OAM server blade...</p> <p>Main Menu → Hardware → System Inventory → <Enclosure> → <Server Blade> ...as shown on the right.</p>	
5.	<p>PMAC Server GUI: <input type="checkbox"/> Select the Software tab. ...as shown on the right.</p> <p>Verify that TVOE application has been installed.</p>	

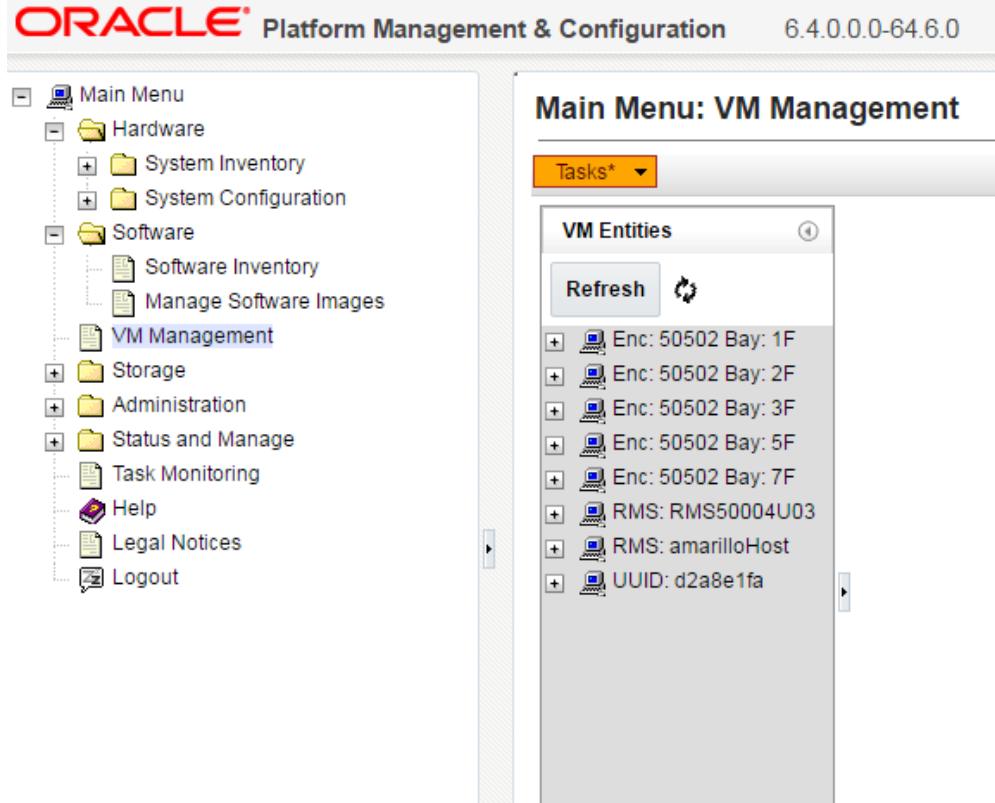
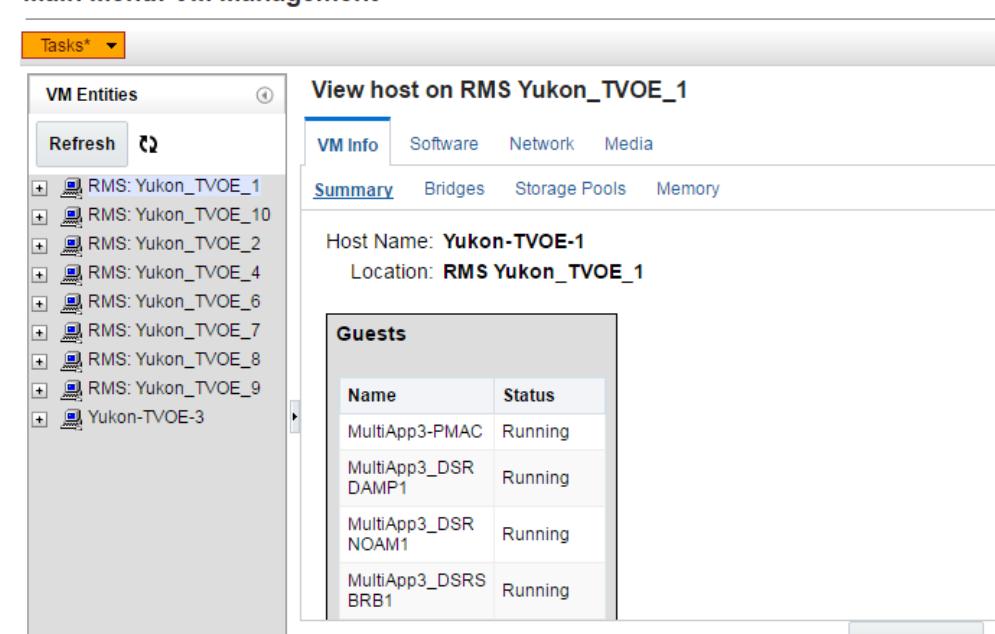
 **IF TVOE WAS NOT INSTALLED OR IS THE INCORRECT VERSION ON THE BLADE SERVER, STOP AND EXECUTE THE FOLLOWING STEPS:**

- 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.

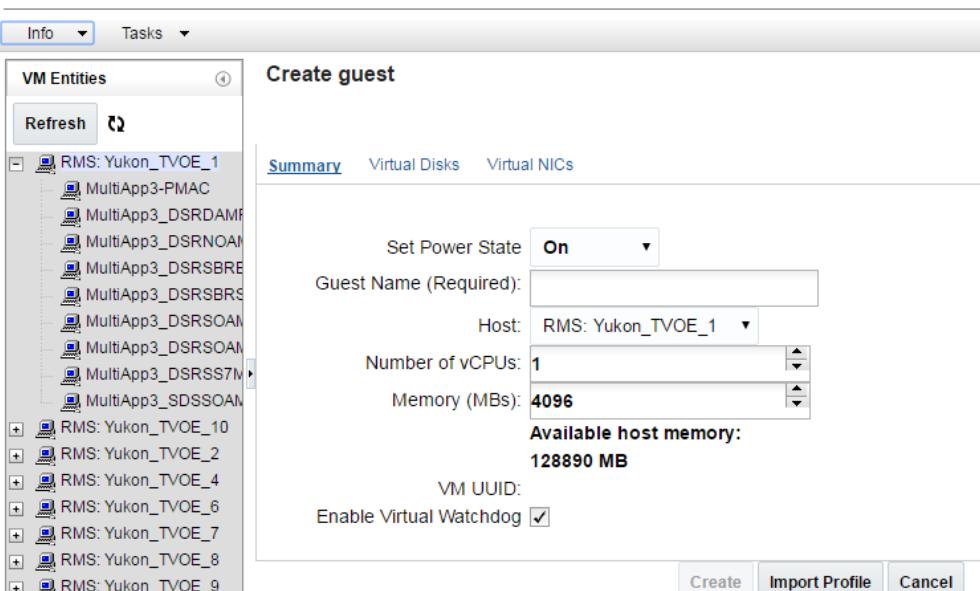
IF TVOE WAS NOT INSTALLED OR IS THE INCORRECT VERSION ON THE BLADE SERVER, STOP AND EXECUTE THE FOLLOWING STEPS:

NOTE: It is assumed that the TVOE version corresponds with the correct DSR and SDS installation guidelines, this can be checked by executing "appRev".

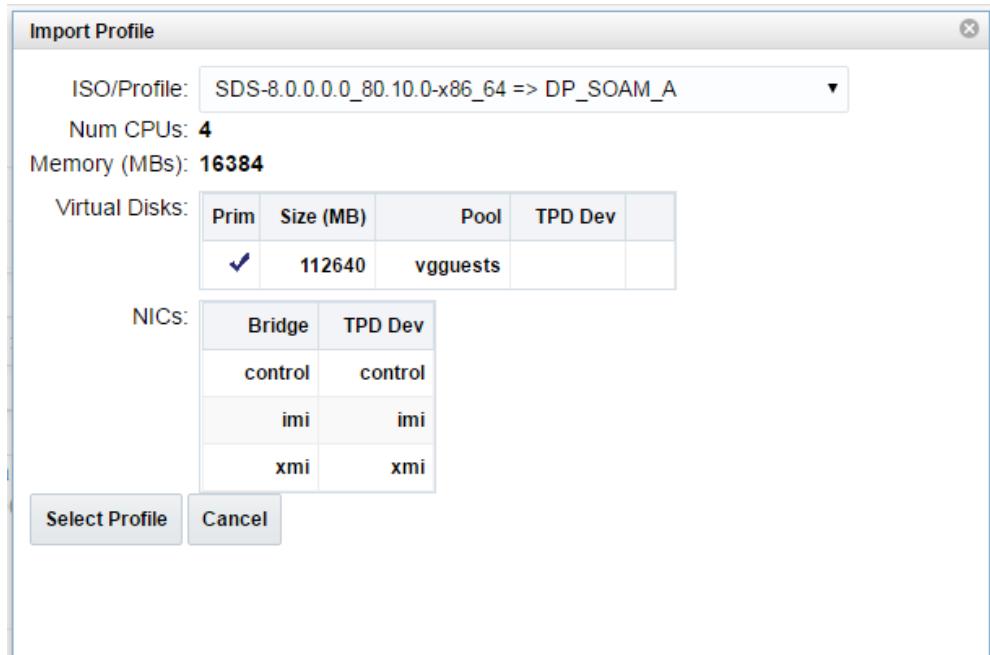
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result										
6.	<p>PMAC Server GUI: <input type="checkbox"/> Select ...</p> <p>Main Menu → VM Management</p> <p>...as shown on the right.</p>	 <p>ORACLE® Platform Management & Configuration 6.4.0.0.0-64.6.0</p> <p>Main Menu:</p> <ul style="list-style-type: none"> Main Menu Hardware System Inventory System Configuration Software <ul style="list-style-type: none"> Software Inventory Manage Software Images VM Management Storage Administration Status and Manage Task Monitoring Help Legal Notices Logout <p>Main Menu: VM Management</p> <p>VM Entities</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 										
7.	<p>PMAC Server GUI: <input type="checkbox"/> 1) In the VM Entities box, select the desired server</p> <p>...as shown on the right.</p> <p>2) Click the “Create Guest” dialogue button</p>	<p>Main Menu: VM Management</p>  <p>View host on RMS Yukon_TVOE_1</p> <p>Host Name: Yukon-TVOE-1 Location: RMS Yukon_TVOE_1</p> <p>Guests</p> <table border="1"> <thead> <tr> <th>Name</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>MultiApp3-PMAC</td> <td>Running</td> </tr> <tr> <td>MultiApp3_DSR DAMP1</td> <td>Running</td> </tr> <tr> <td>MultiApp3_DSR NOAM1</td> <td>Running</td> </tr> <tr> <td>MultiApp3_DSRS BRB1</td> <td>Running</td> </tr> </tbody> </table> <p>Create Guest</p>	Name	Status	MultiApp3-PMAC	Running	MultiApp3_DSR DAMP1	Running	MultiApp3_DSR NOAM1	Running	MultiApp3_DSRS BRB1	Running
Name	Status											
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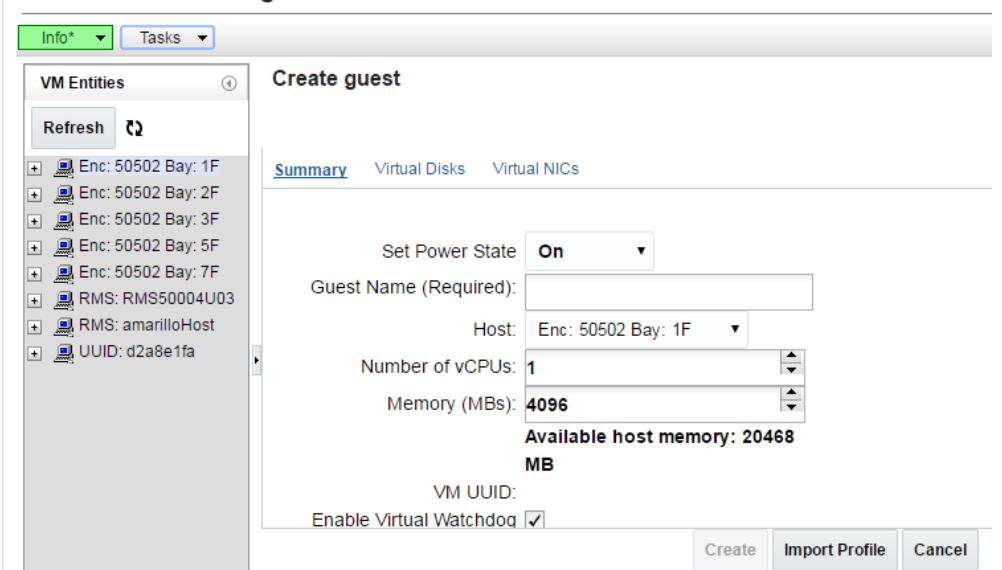
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
8.	PMAC Server GUI: Click the “Import Profile” dialogue button ...as shown on the right.	 <p>The screenshot shows the PMAC Server GUI with the 'Create guest' dialog open. The 'VM Entities' list on the left contains several entries under 'RMS: Yukon_TVOE_1' and 'RMS: Yukon_TVOE_2'. The 'Create guest' dialog on the right is set to 'On' for power state, 'RMS: Yukon_TVOE_1' for host, 1 for vCPUs, and 4096 for memory. The 'Import Profile' button is highlighted.</p>

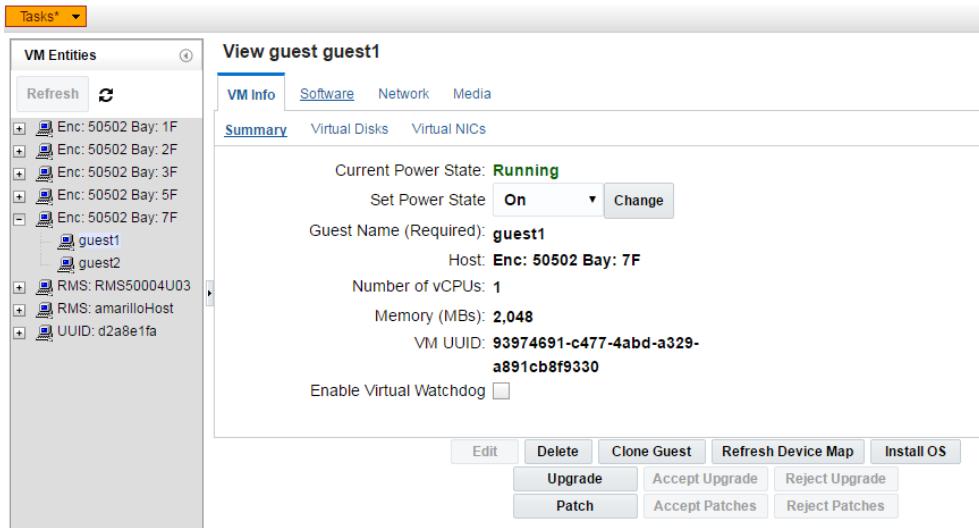
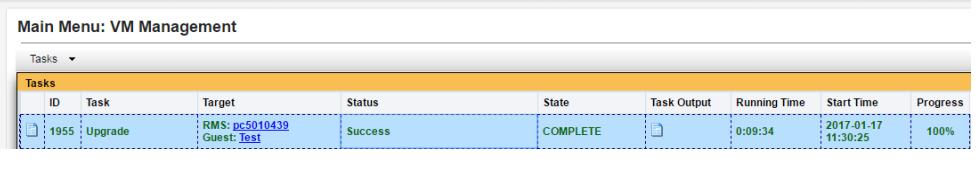
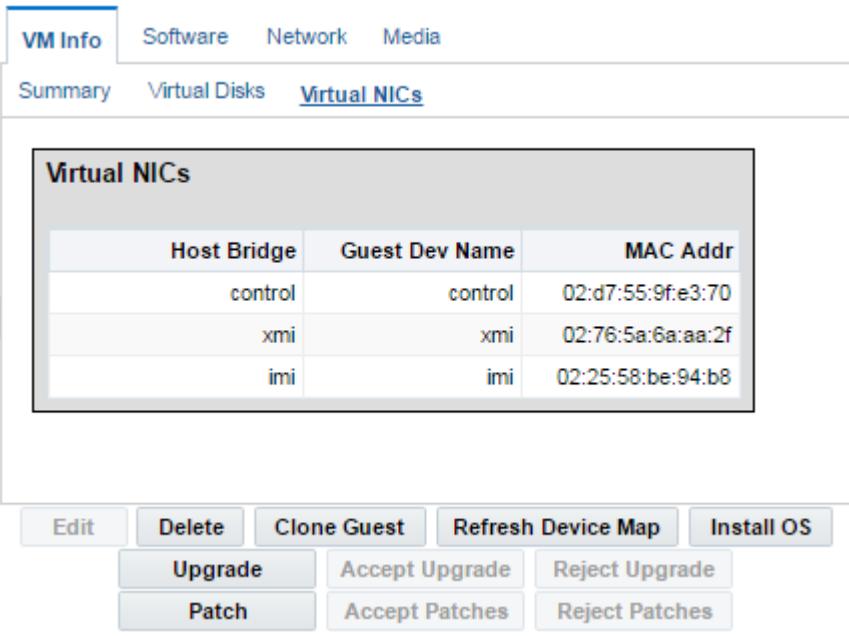
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result																
9. <input type="checkbox"/>	PMAC Server GUI: 1) Select the desired ISO/Profile value ...as shown on the right. 2) Click the "Select Profile" dialogue button	From the "ISO/Profile" drop-down box, select the entry that matches depending on the hardware that your SOAM VM TVOE server is running: <table border="1"> <thead> <tr> <th>SDS Release</th> <th>TVOE HW Type (BL460 Blade Server)</th> <th>Role</th> <th>Choose Profile (<Application ISO NAME>)</th> </tr> </thead> <tbody> <tr> <td>8.4</td> <td>Gen8/Gen9 Blade (if 1 Billion subscribers support is not needed)</td> <td>SOAM-A</td> <td>DP_SOAM_A</td> </tr> <tr> <td></td> <td></td> <td>SOAM-B</td> <td>DP_SOAM_B</td> </tr> <tr> <td></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> Note: Application_ISO_NAME is the name of the SDS Application ISO to be installed on this SOAM 	SDS Release	TVOE HW Type (BL460 Blade Server)	Role	Choose Profile (<Application ISO NAME>)	8.4	Gen8/Gen9 Blade (if 1 Billion subscribers support is not needed)	SOAM-A	DP_SOAM_A			SOAM-B	DP_SOAM_B		Gen8/Gen9 Blade (if 1 Billion subscribers support is needed)	SOAM-A SOAM-B	DP_SOAM_1B_RE
SDS Release	TVOE HW Type (BL460 Blade Server)	Role	Choose Profile (<Application ISO NAME>)															
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		SOAM-B	DP_SOAM_B															
	Gen8/Gen9 Blade (if 1 Billion subscribers support is needed)	SOAM-A SOAM-B	DP_SOAM_1B_RE															

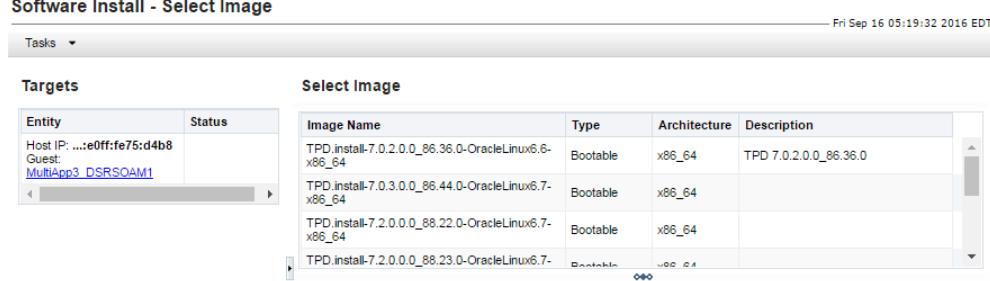
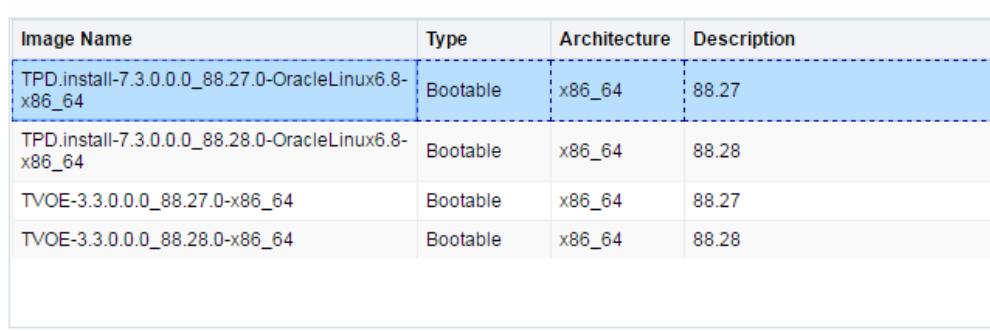
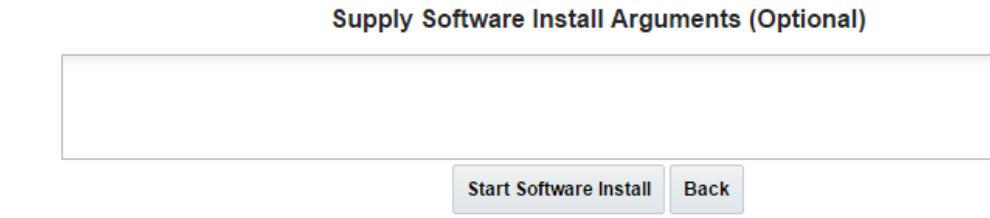
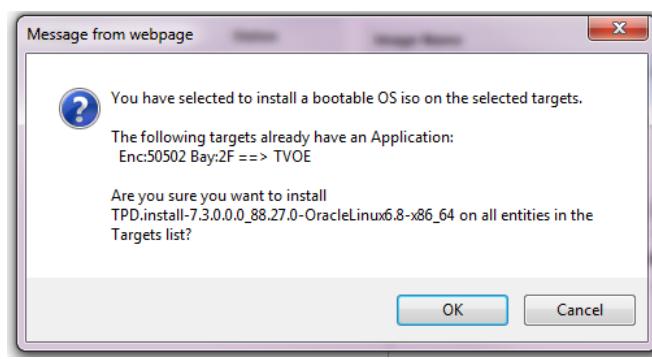
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
10.	PMAC Server GUI: 1) Overwrite the Name field with the Server host name (e.g. "so-mrsvnc-a") 2) Click the " Create " dialogue button	

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

Step	Procedure	Result
11.	<p>PMAC Server GUI:</p> <p>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>Main Menu: VM Management</p>  <p>Main Menu: VM Management</p>  <p>Using the "Tasks" tab, verify that the task completes successfully</p>
12.	<p>PMAC Server GUI:</p> <p>Install the operating system by clicking the "Install OS" dialogue button</p>	

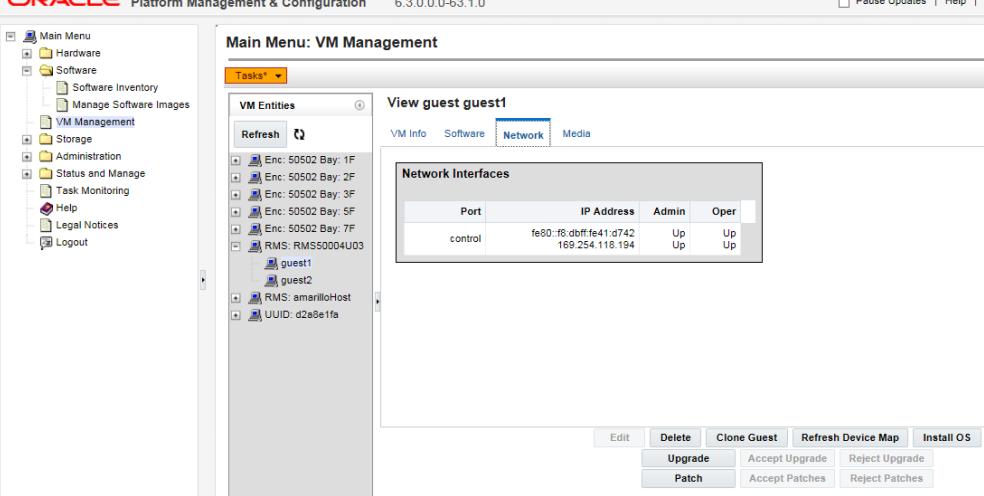
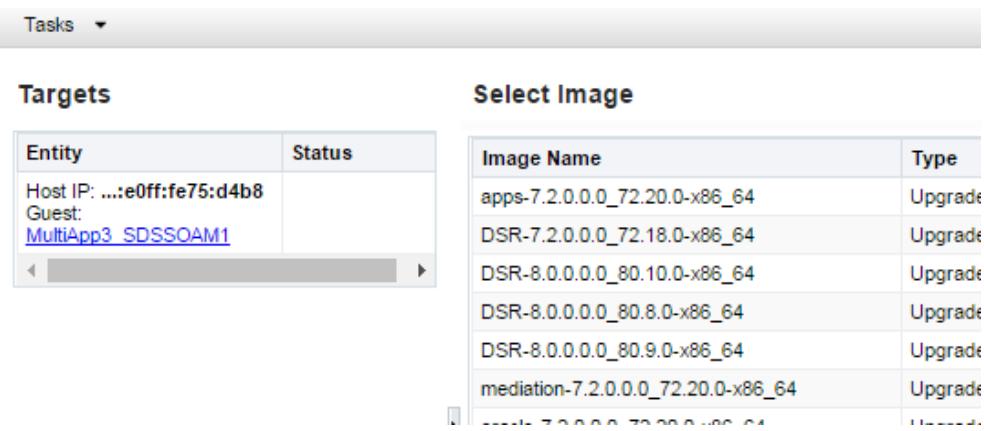
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
13.	PMAC Server GUI: The user should see a screen similar to the one on the right.	
14.	PMAC Server GUI: 1) Select the desired TPD Image 2) Click the “ Start Install ” dialogue button.	 
15.	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.	

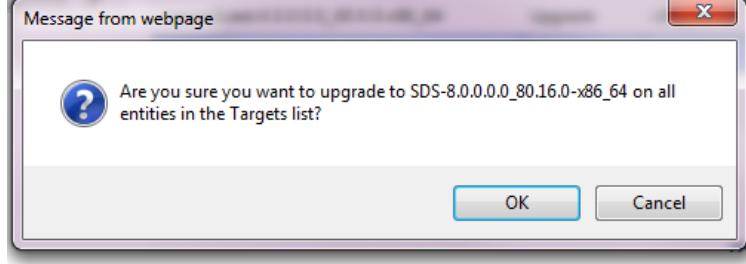
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
16.	<p>PMAC Server GUI:</p> <p>An installation task will be started. This task takes ~11 minutes. The user can monitor this task by doing the following:</p> <p>Select...</p> <p>Main Menu → Task Monitoring</p> <p>Wait till Progress is 100% with a Status of Success and a State of Complete.</p>	
17.	<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. 	

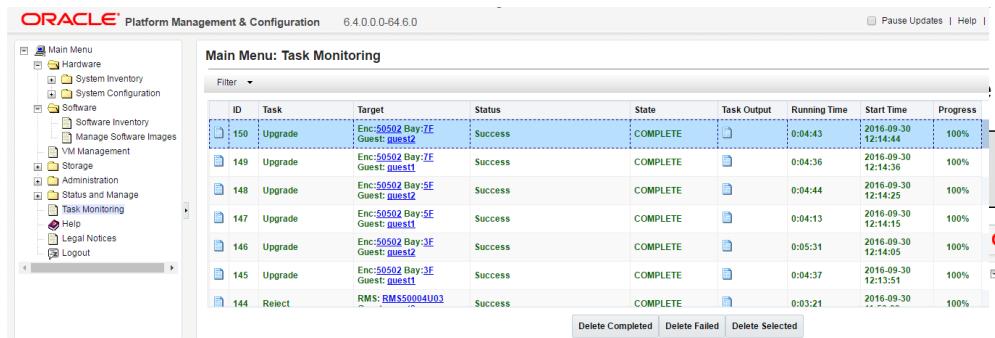
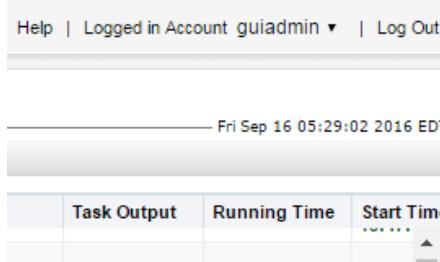
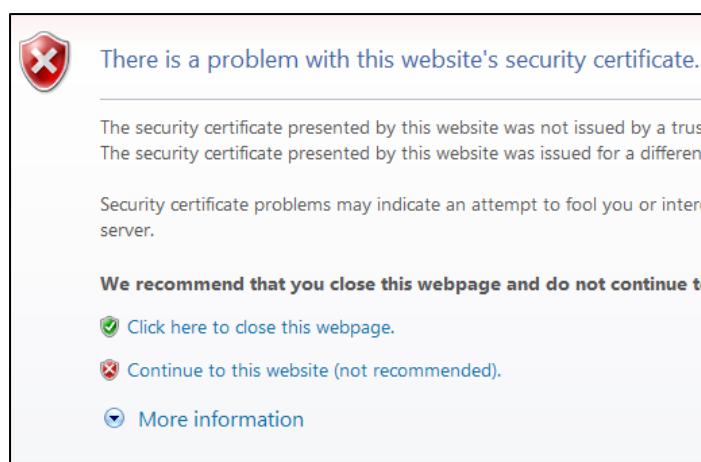
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
18.	PMAC Server GUI: 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	
19.	PMAC Server GUI: The user should be presented the Select Image screen as shown on the right	Software Upgrade - Select Image 

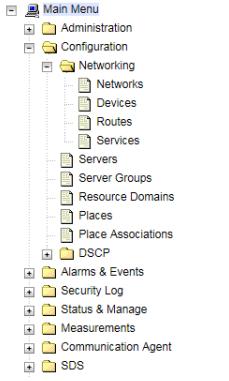
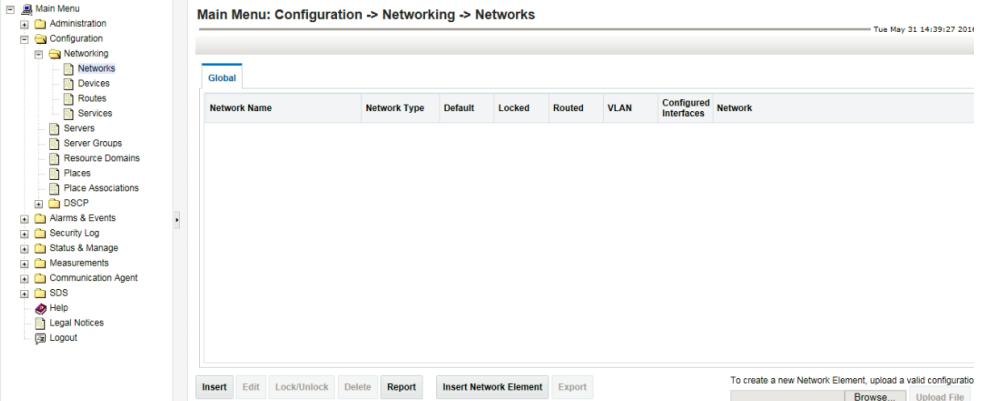
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result																				
20.	PMAC Server GUI: <input type="checkbox"/> 1) Select the correct SDS version from the “Image Name” list. The line entry should now be highlighted. 2) Select the “Start Upgrade” dialogue button	<p>Select Image</p> <p>Image Name Type Architecture Description</p> <table border="1"> <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><input type="text"/></p> <p>Start Software Upgrade Back</p>	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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21.	PMAC Server GUI: <input type="checkbox"/> The user should be presented with an “Are you sure you want to upgrade” message boxas shown on the right. Click the “OK” dialogue button.																					

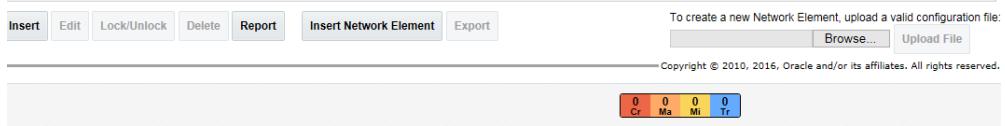
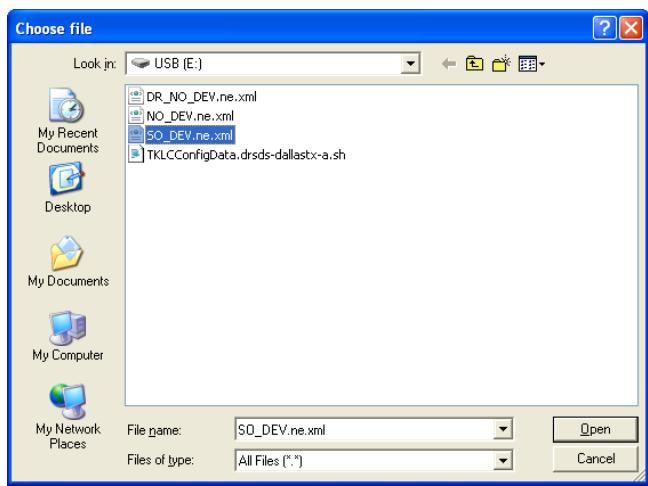
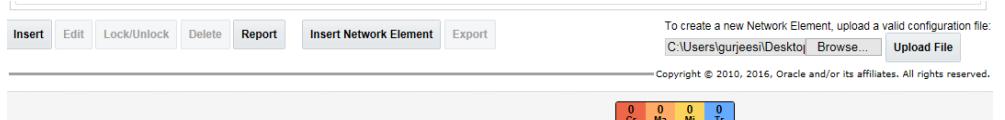
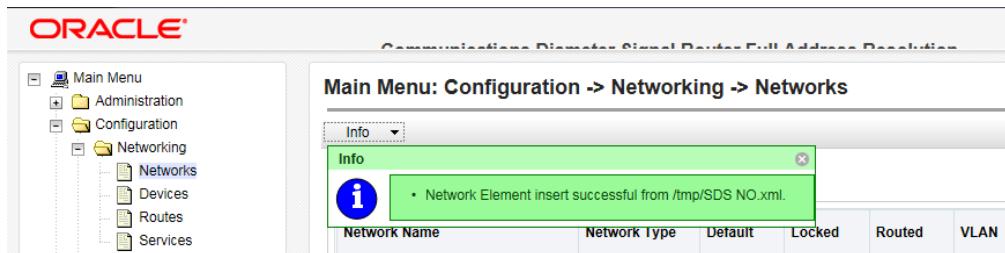
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
22.	<p>PMAC Server GUI: <input type="checkbox"/> 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>Main Menu → Task Monitoring</p> <p>Wait till Progress is 100% with a Status of Success and a State of Complete.</p>	
23.	<input type="checkbox"/> Repeat Steps 4 - 22 of this procedure for the SOAM B Server .	
24.	<p>PMAC Server GUI: <input type="checkbox"/> Click the “Logout” link on the PMAC server GUI.</p>	
25.	<p>Primary SDS VIP: <input type="checkbox"/> Launch an approved web browser and connect to the XMI Virtual IP address (VIP) assigned to Active SDS site</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>	

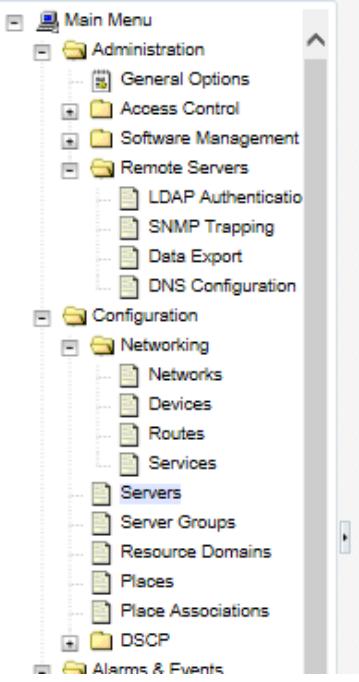
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result																
26.	<p>Primary SDS VIP: <input type="checkbox"/> 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>ORACLE®</p> <p>Oracle System Login</p> <p>Tue May 31 14:34:34 2016 EDT</p> <p>Log In Enter your username and password to log in</p> <p>Username: <input type="text"/></p> <p>Password: <input type="password"/></p> <p><input type="checkbox"/> Change password</p> <p>Log In</p> <p>Welcome to the Oracle System Login.</p> <p>This application is designed to work with most modern HTML5 compliant browsers and uses both JavaScript and cookies. Please refer to the Oracle Software Web Browser Support Policy for details.</p> <p>Unauthorized access is prohibited.</p> <p>Oracle and Java are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.</p> <p>Copyright © 2010, 2016, Oracle and/or its affiliates. All rights reserved.</p>																
27.	<p>Primary SDS VIP: <input type="checkbox"/> The user should be presented the SDS Main Menu as shown on the right.</p>	 <p>Communications Diameter Signal Router Full Address Resolution 8.0.0.0-80.3.1</p> <p>Main Menu: [Main]</p> <p>This is the user-defined welcome message. It can be modified using the 'General Options' item under the 'Administ' menu.</p> <p>Login Name: guidadmin Last Login Time: 0000-00-00 00:00:00 Last Login IP: Recent Failed Login Attempts: 0</p>																
28.	<p>Primary SDS VIP: <input type="checkbox"/> Select...</p> <p>Main Menu → Configuration → Networking → Networks</p> <p>...as shown on the right.</p>	 <p>Main Menu: Configuration -> Networking -> Networks</p> <p>Tue May 31 14:39:27 2016</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></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>Global</p> <p>Insert Edit Lock/Unlock Delete Report Insert Network Element Export To create a new Network Element, upload a valid configuration Browse... Upload File</p>	Network Name	Network Type	Default	Locked	Routed	VLAN	Configured Interfaces	Network								
Network Name	Network Type	Default	Locked	Routed	VLAN	Configured Interfaces	Network											

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

Step	Procedure	Result
29.	Primary SDS VIP: From the Configuration / Network Elements screen, select the “Browse” dialogue button	
30.	Primary SDS VIP: Note: This step assumes that the .xml files were previously prepared, as described in Appendix E . 1) Select the location containing the site .xml file. 2) Select the .xml file and click the “Open” dialogue button.	
31.	Primary SDS VIP: Select the “Upload File” dialogue button (bottom left corner of screen).	
32.	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.	

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

Step	Procedure	Result																								
33.	<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>	 <p>Main Menu: Configuration > Servers</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>Sys...</th> </tr> </thead> <tbody> <tr> <td>sds-no-a</td><td>Network OAM&P</td><td>sds...</td></tr> <tr> <td>sds-no-b</td><td>Network OAM&P</td><td>sds...</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-s...</td></tr> </tbody> </table>	Hostname	Role	Sys...	sds-no-a	Network OAM&P	sds...	sds-no-b	Network OAM&P	sds...	qs-sds-1	Query Server		dr-sds-no-a	Network OAM&P	dr-s...									
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dr-sds-no-a	Network OAM&P	dr-s...																								
34.	<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> <th>Descrip...</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><input type="button" value="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><input type="button" value="SDS HP Rack Mount"/></td> <td>Hardware...</td></tr> <tr> <td>Network Element Name *</td> <td><input type="button" value="Unassigned"/></td> <td>Select th...</td></tr> <tr> <td>Location</td> <td><input type="text"/></td> <td>Location...</td></tr> <tr> <td colspan="2"> <input type="button" value="Ok"/> <input type="button" value="Apply"/> <input type="button" value="Cancel"/> </td><td></td></tr> </tbody> </table>	Attribute	Value	Descrip...	Hostname *	<input type="text"/>	Unique r... value is i...	Role *	<input type="button" value="Select Role"/>	Select th...	System ID	<input type="text"/>	System I...	Hardware Profile	<input type="button" value="SDS HP Rack Mount"/>	Hardware...	Network Element Name *	<input type="button" value="Unassigned"/>	Select th...	Location	<input type="text"/>	Location...	<input type="button" value="Ok"/> <input type="button" value="Apply"/> <input type="button" value="Cancel"/>		
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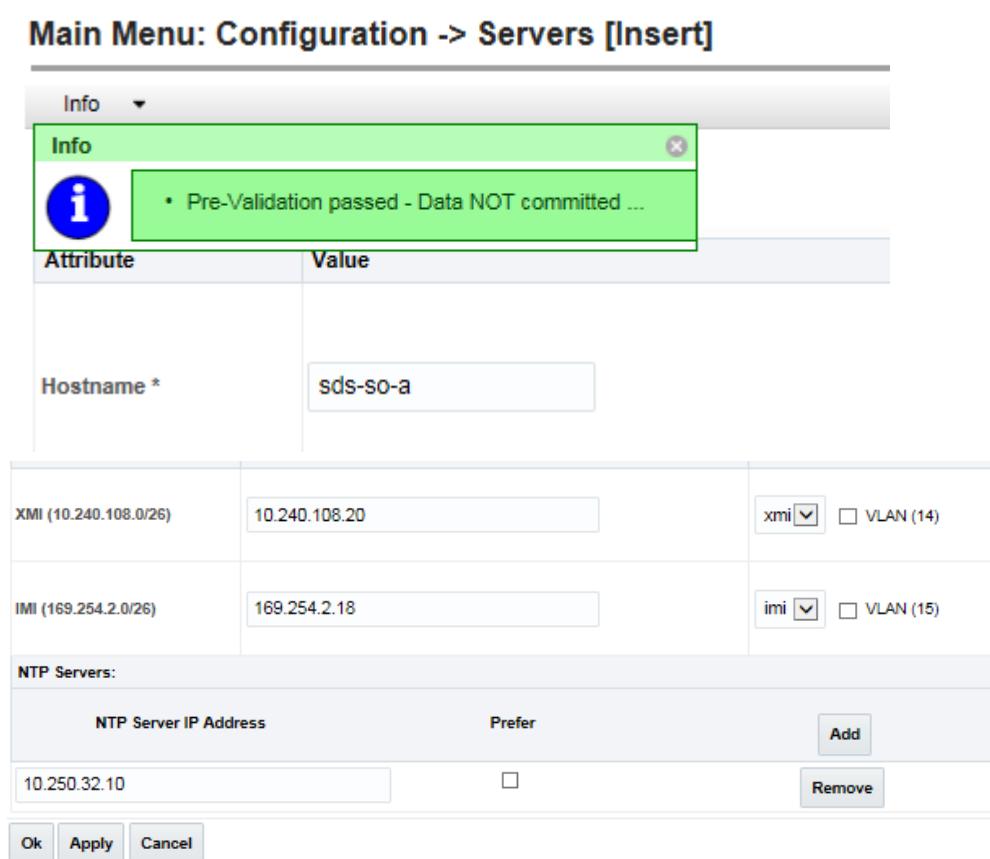
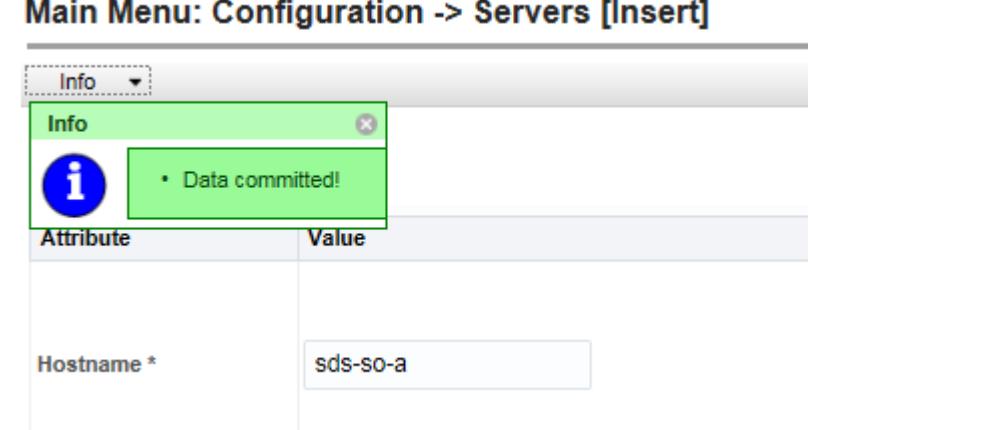
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result																								
35. <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></th></tr> </thead> <tbody> <tr> <td>Hostname *</td><td>sds-so-a</td><td></td></tr> </tbody> </table>	Attribute	Value		Hostname *	sds-so-a		<table border="1"> <thead> <tr> <th>Description</th></tr> </thead> <tbody> <tr> <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>	Description	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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36. <input type="checkbox"/>	Primary SDS VIP: Select “ SYSTEM OAM ” for the Role from the pull-down menu.	<table border="1"> <thead> <tr> <th>Role *</th><th></th><th></th></tr> </thead> <tbody> <tr> <td>- Select Role -</td><td>NETWORK OAM&P SYSTEM OAM MP QUERY SERVER</td><td></td></tr> </tbody> </table>	Role *			- Select Role -	NETWORK OAM&P SYSTEM OAM MP QUERY SERVER		<table border="1"> <thead> <tr> <th>Description</th></tr> </thead> <tbody> <tr> <td>Select the function of the server [A value is required.]</td></tr> </tbody> </table>	Description	Select the function of the server [A value is required.]															
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Select the function of the server [A value is required.]																										
37. <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"> <thead> <tr> <th>System ID</th><th>sds-so-a</th><th></th></tr> </thead> </table>	System ID	sds-so-a		<table border="1"> <thead> <tr> <th>Description</th></tr> </thead> <tbody> <tr> <td>System ID for the NOAMP or SOAM. Range = A 64-character string.</td></tr> </tbody> </table>	Description	System ID for the NOAMP or SOAM. Range = A 64-character string.																		
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38. <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"> <thead> <tr> <th>System ID</th><th>SDS HP Rack Mount</th><th></th></tr> </thead> <tbody> <tr> <td>Hardware Profile</td><td>SDS Cloud Guest</td><td></td></tr> <tr> <td>Hardware Profile</td><td>SDS HP c-Class Blade V1</td><td></td></tr> <tr> <td>Hardware Profile</td><td>SDS HP c-Class Blade V2</td><td></td></tr> <tr> <td>Hardware Profile</td><td>SDS TVOE Guest</td><td>[Selected]</td></tr> <tr> <td>Hardware Profile</td><td>SDS HP c-Class Blade V0</td><td></td></tr> </tbody> </table>	System ID	SDS HP Rack Mount		Hardware Profile	SDS Cloud Guest		Hardware Profile	SDS HP c-Class Blade V1		Hardware Profile	SDS HP c-Class Blade V2		Hardware Profile	SDS TVOE Guest	[Selected]	Hardware Profile	SDS HP c-Class Blade V0		<table border="1"> <thead> <tr> <th>Description</th></tr> </thead> <tbody> <tr> <td>System ID for the NOAMP or SOAM. Range = A 64-character string. Valid.</td></tr> </tbody> </table>	Description	System ID for the NOAMP or SOAM. Range = A 64-character string. Valid.	<table border="1"> <thead> <tr> <th>Description</th></tr> </thead> <tbody> <tr> <td>Hardware profile of the server</td></tr> </tbody> </table>	Description	Hardware profile of the server
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39. <input type="checkbox"/>	Primary SDS VIP: Select the Network Element Name for the SDS from the pull-down menu. NOTE: After the Network Element Name is selected, the Interfaces fields will be displayed, as seen in Step 41 .	<table border="1"> <thead> <tr> <th>Network Element Name *</th><th>SDS_NE</th><th></th></tr> </thead> </table>	Network Element Name *	SDS_NE		<table border="1"> <thead> <tr> <th>Description</th></tr> </thead> <tbody> <tr> <td>Select the network element [A value is required.]</td></tr> </tbody> </table>	Description	Select the network element [A value is required.]																		
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40. <input type="checkbox"/>	Primary SDS VIP: Enter the site location.	<table border="1"> <thead> <tr> <th>Location</th><th>Bangalore</th><th></th></tr> </thead> </table>	Location	Bangalore		<table border="1"> <thead> <tr> <th>Description</th></tr> </thead> <tbody> <tr> <td>Location description [Default = “”. Range = A 15-character string. Valid value is any text string.]</td></tr> </tbody> </table>	Description	Location description [Default = “”. Range = A 15-character string. Valid value is any text string.]	<table border="1"> <thead> <tr> <th>Description</th></tr> </thead> <tbody> <tr> <td>NOTE: Location is an optional field.</td></tr> </tbody> </table>	Description	NOTE: Location is an optional field.															
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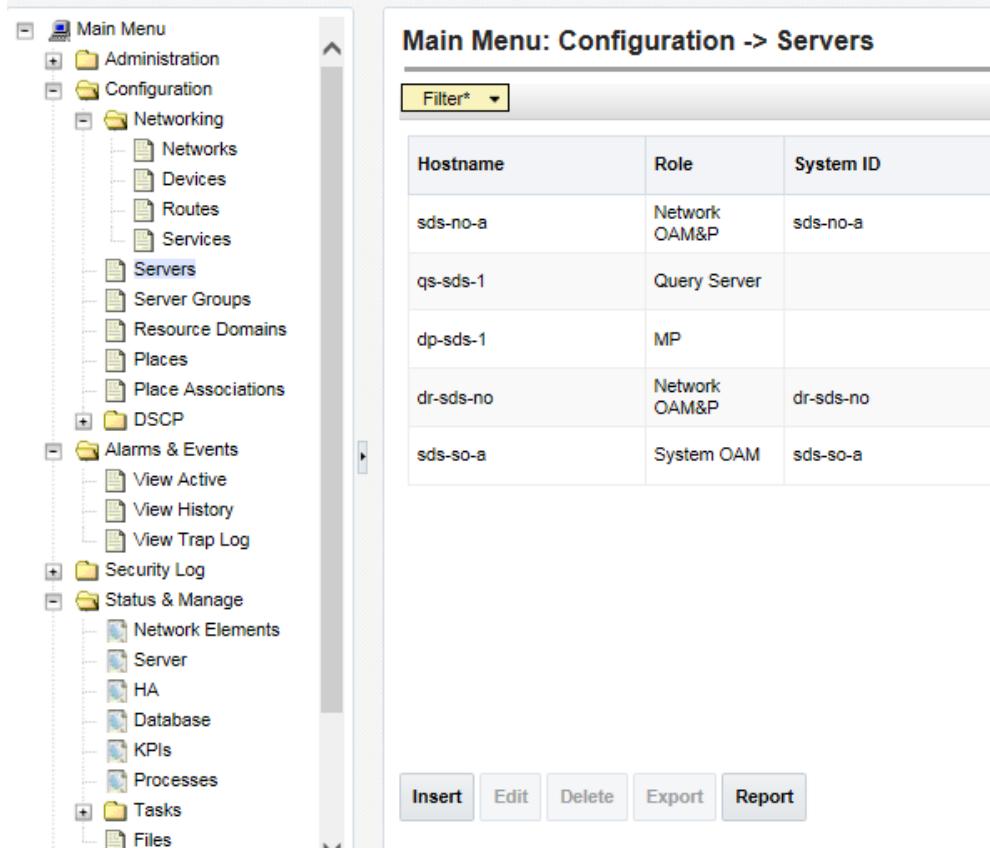
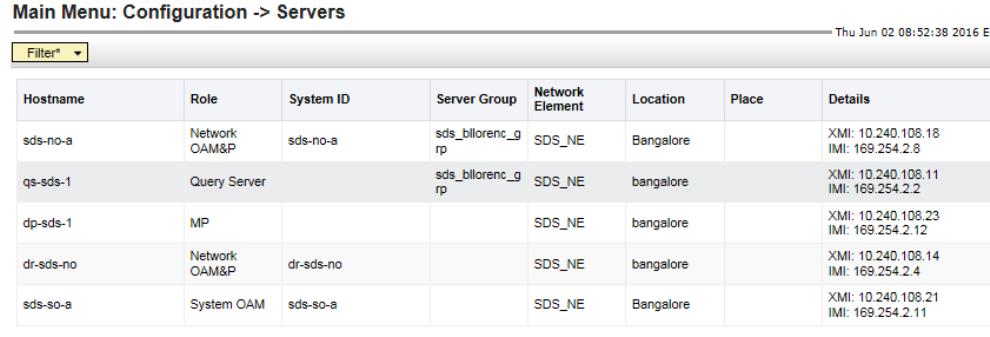
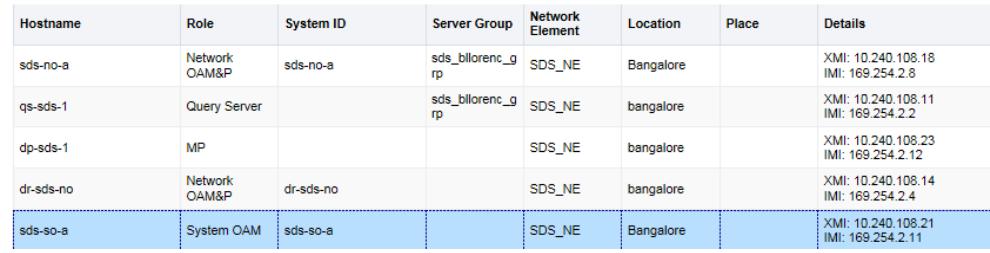
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
41.	Primary SDS VIP: 1) Enter the XMI IP address and IMI IP address for the SDS SOAM Server . 2) Set the XMI Interface to “ xmi ” and DO NOT check the VLAN checkbox. 3) Set the IMI Interface to “ imi ” and DO NOT check the VLAN checkbox.	
42.	Primary SDS VIP: 1) Click the “ NTP Servers: ” “ Add ” dialogue button. 2) Enter the NTP Server IP Address for an NTP Server. 3) Enter 3 NTP Server IP address , repeat (1) and (2) to enter it. 4) Optionally, click the “ Prefer ” checkbox to prefer one NTP Server over the other.	

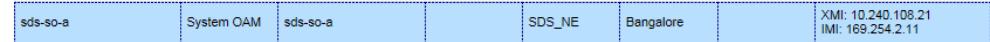
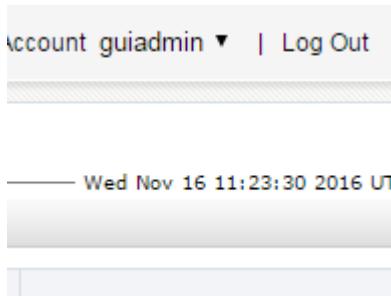
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
43.	<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>	
44.	<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 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result																																																
45.	<p>Primary SDS VIP: <input type="checkbox"/> 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>qs-sds-1</td> <td>Query Server</td> <td></td> </tr> <tr> <td>dp-sds-1</td> <td>MP</td> <td></td> </tr> <tr> <td>dr-sds-no</td> <td>Network OAM&P</td> <td>dr-sds-no</td> </tr> <tr> <td>sds-so-a</td> <td>System OAM</td> <td>sds-so-a</td> </tr> </tbody> </table>	Hostname	Role	System ID	sds-no-a	Network OAM&P	sds-no-a	qs-sds-1	Query Server		dp-sds-1	MP		dr-sds-no	Network OAM&P	dr-sds-no	sds-so-a	System OAM	sds-so-a																														
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46.	<p>Primary SDS VIP: <input type="checkbox"/> On the “Configuration → Servers” screen, find the newly added System SOAM 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_billorenc_g_rp</td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> <td>XMI: 10.240.108.18 IMI: 169.254.2.8</td> </tr> <tr> <td>qs-sds-1</td> <td>Query Server</td> <td></td> <td>sds_billorenc_g_rp</td> <td>SDS_NE</td> <td>bangalore</td> <td></td> <td>XMI: 10.240.108.11 IMI: 169.254.2.2</td> </tr> <tr> <td>dp-sds-1</td> <td>MP</td> <td></td> <td></td> <td>SDS_NE</td> <td>bangalore</td> <td></td> <td>XMI: 10.240.108.23 IMI: 169.254.2.12</td> </tr> <tr> <td>dr-sds-no</td> <td>Network OAM&P</td> <td>dr-sds-no</td> <td></td> <td>SDS_NE</td> <td>bangalore</td> <td></td> <td>XMI: 10.240.108.14 IMI: 169.254.2.4</td> </tr> <tr> <td>sds-so-a</td> <td>System OAM</td> <td>sds-so-a</td> <td></td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> <td>XMI: 10.240.108.21 IMI: 169.254.2.11</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_billorenc_g_rp	SDS_NE	Bangalore		XMI: 10.240.108.18 IMI: 169.254.2.8	qs-sds-1	Query Server		sds_billorenc_g_rp	SDS_NE	bangalore		XMI: 10.240.108.11 IMI: 169.254.2.2	dp-sds-1	MP			SDS_NE	bangalore		XMI: 10.240.108.23 IMI: 169.254.2.12	dr-sds-no	Network OAM&P	dr-sds-no		SDS_NE	bangalore		XMI: 10.240.108.14 IMI: 169.254.2.4	sds-so-a	System OAM	sds-so-a		SDS_NE	Bangalore		XMI: 10.240.108.21 IMI: 169.254.2.11
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47.	<p>Primary SDS VIP: <input type="checkbox"/> Use the cursor to select the new SOAM server entry added in the Step 35.</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_billorenc_g_rp</td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> <td>XMI: 10.240.108.18 IMI: 169.254.2.8</td> </tr> <tr> <td>qs-sds-1</td> <td>Query Server</td> <td></td> <td>sds_billorenc_g_rp</td> <td>SDS_NE</td> <td>bangalore</td> <td></td> <td>XMI: 10.240.108.11 IMI: 169.254.2.2</td> </tr> <tr> <td>dp-sds-1</td> <td>MP</td> <td></td> <td></td> <td>SDS_NE</td> <td>bangalore</td> <td></td> <td>XMI: 10.240.108.23 IMI: 169.254.2.12</td> </tr> <tr> <td>dr-sds-no</td> <td>Network OAM&P</td> <td>dr-sds-no</td> <td></td> <td>SDS_NE</td> <td>bangalore</td> <td></td> <td>XMI: 10.240.108.14 IMI: 169.254.2.4</td> </tr> <tr> <td>sds-so-a</td> <td>System OAM</td> <td>sds-so-a</td> <td></td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> <td>XMI: 10.240.108.21 IMI: 169.254.2.11</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_billorenc_g_rp	SDS_NE	Bangalore		XMI: 10.240.108.18 IMI: 169.254.2.8	qs-sds-1	Query Server		sds_billorenc_g_rp	SDS_NE	bangalore		XMI: 10.240.108.11 IMI: 169.254.2.2	dp-sds-1	MP			SDS_NE	bangalore		XMI: 10.240.108.23 IMI: 169.254.2.12	dr-sds-no	Network OAM&P	dr-sds-no		SDS_NE	bangalore		XMI: 10.240.108.14 IMI: 169.254.2.4	sds-so-a	System OAM	sds-so-a		SDS_NE	Bangalore		XMI: 10.240.108.21 IMI: 169.254.2.11
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Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
48. <input type="checkbox"/>	Primary SDS VIP: Select the “ Export ” dialogue button (bottom left corner of screen).	 <input type="button" value="Insert"/> <input type="button" value="Edit"/> <input type="button" value="Delete"/> <input type="button" value="Export"/> <input type="button" value="Report"/>
49. <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.
50. <input type="checkbox"/>	Primary SDS VIP: Click the “Logout” link on the SDS server GUI.	
51. <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 .
52. <input type="checkbox"/>	Primary SDS VIP: Log into the server as the admusr	login: admusr Password: <admusr_password>
53. <input type="checkbox"/>	Primary SDS VIP: Change directory into the file management space.	\$ sudo cd /var/TKLC/db/filemgmt
54. <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.	\$ ls -ltr TKLCConfigData*.sh *** TRUNCATED OUTPUT *** -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

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

Step	Procedure	Result
55. <input type="checkbox"/>	Primary SDS VIP: Copy the configuration files found in the previous step to the PMAC.	\$ 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]#
56.	Primary SDS VIP: Logout of the Primary SDS CLI.	\$ exit
57.	PMAC Server CLI: Use SSH to login to the PMAC Guest VM server as the admusr .	login: admusr Password: <admusr_password>
58.	PMAC Guest VM: Keyexchange with SOAM control IP	\$ 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 ~]\$
59. <input type="checkbox"/>	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.	\$ 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

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

Step	Procedure	Result
60. <input type="checkbox"/>	PMAC Guest VM: Connect to the SOAM server console from the PMAC Server Console	\$ sudo ssh <SOAM_Guest_Control_IP> admusr@192.168.1.199's password: <admusr_password>
61. <input type="checkbox"/>	SOAM Guest VM: Copy the server configuration file to the “/var/tmp” directory on the server, making sure to rename the file by omitting the server hostname (shown in red) from the file name.	Example: TKLCConfigData<.server_hostname>.sh → will translate to →TKLCConfigData.sh \$ sudo cp -p /var/TKLC/db/filemgmt/TKLCConfigData.so-carync-a.sh /var/tmp/TKLCConfigData.sh NOTE: The server will poll the /var/tmp directory for the presence of the configuration file and automatically execute it when found.
62. <input type="checkbox"/>	SOAM Guest VM: After the script completes, a broadcast message will be sent to the terminal. 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.	*** NO OUTPUT FOR ≈ 3-20 MINUTES *** 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. <ENTER>
63.	SOAM Guest VM: Verify that the desired Time Zone is currently in use.	\$ date Mon Aug 10 19:34:51 UTC 2015 Verify if the Timezone displayed above matches the value set in Procedure 2, Step 42.
64. <input type="checkbox"/>	SOAM Guest VM: Initiate a reboot of the SOAM server.	\$ sudo init 6
65. <input type="checkbox"/>	SOAM Guest VM: Output similar to that shown on the right may be observed as the server initiates a reboot.	Connection to 192.168.1.199 closed by remote host. Connection to 192.168.1.199 closed.

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

Step	Procedure	Result
66. <input type="checkbox"/>	PMAC Guest VM: After the SOAM server has completed reboot, re-connect to the SOAM server console from the PMAC Server Console	<pre>\$ sudo ssh <SOAM_Control_IP> admusr@192.168.1.199's password: <admusr_password></pre>
67. <input type="checkbox"/>	SOAM Guest VM: 1) Verify that the IMI IP address input in Step 41 has been applied as specified. 2) Verify that the XMI IP address input in Step 41 has been applied as specified.	<pre>\$ ifconfig grep in control Link encap:Ethernet HWaddr 52:54:00:23:DC:32 inet addr:192.168.1.199 Bcast:192.168.1.255 Mask:255.255.255.0 imi Link encap:Ethernet HWaddr 52:54:00:33:DC:DC inet addr:10.240.39.78 Bcast:10.240.39.127 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>
68.	SOAM Guest VM: Execute a “syscheck” to verify the current health of the server.	<pre>\$ sudo syscheck Running modules in class hardware... OK Running modules in class disk... OK Running modules in class net... OK Running modules in class system... OK Running modules in class proc... OK LOG LOCATION: /var/TKLC/log/syscheck/fail_log</pre>

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

Step	Procedure	Result
69.	<p>SOAM Guest VM:</p> <p>Accept upgrade to the Application Software.</p> <ul style="list-style-type: none"> - Running the "accept" script from the command line now launches a screen session on blades & VM Guest. - Use the "q" key to exit the screen session 	<p>-</p> <p>[admusr@nassau-sds-so-b ~]\$ sudo /var/TKLC/backout/accept</p> <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 Type the letter "q" on the keyboard to exit the screen session. [screen is terminating] [admusr@nassau-sds-so-b ~]\$</p>
70.	Apply the SDS SOAM B server configuration file.	<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
71. <input type="checkbox"/>	SOAM Guest B: From the SOAM-B Guest, “ping” the XMI IP address of the SOAM-A Guest	\$ 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
72. <input type="checkbox"/>	SOAM Guest B: From the SOAM-B Guest, “ping” the XMI IP address of the SOAM-A Guest	\$ 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
73. <input type="checkbox"/>	SOAM Guest B: From the SOAM-B Guest, “ping” the local XMI Gateway address associated with the SOAM NE.	\$ 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
74. <input type="checkbox"/>	SOAM Guest VM: Use the “ ntpq ” command to verify that the server has connectivity to the assigned Primary and Secondary NTP server(s).	\$ 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

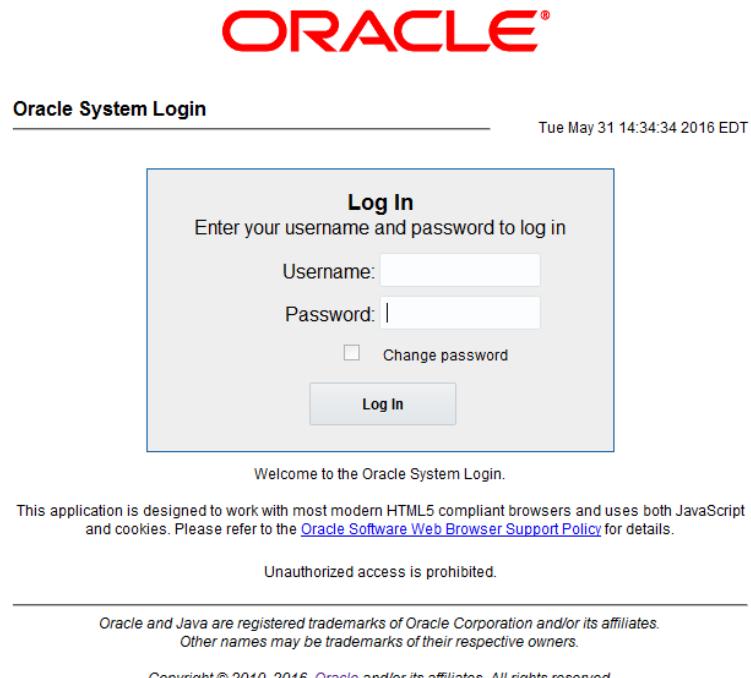
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
IF CONNECTIVITY TO THE NTP SERVER(S) CANNOT BE ESTABLISHED, STOP AND EXECUTE THE FOLLOWING STEPS:		
 <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. ONCE NETWORK CONNECTIVITY IS ESTABLISHED TO THE ASSIGNED NTP IP ADDRESSES, THEN RESTART THIS PROCEDURE BEGINNING WITH STEP 74.		
75.	SOAM Guest VM: <input type="checkbox"/> Exit from the SOAM command line to return the PMAC server console prompt.	\$ exit
76.	PMAC Guest VM: <input type="checkbox"/> Exit from the PMAC server	\$ exit
THIS PROCEDURE HAS BEEN COMPLETED		

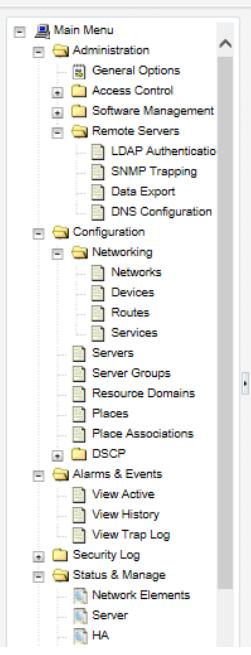
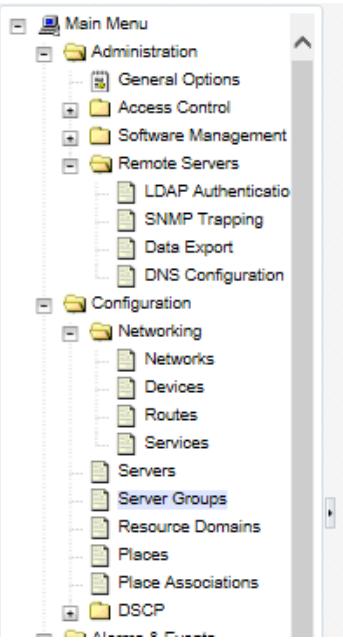
5.8 OAM Pairing for SDS SOAM sites (All SOAM sites)

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.

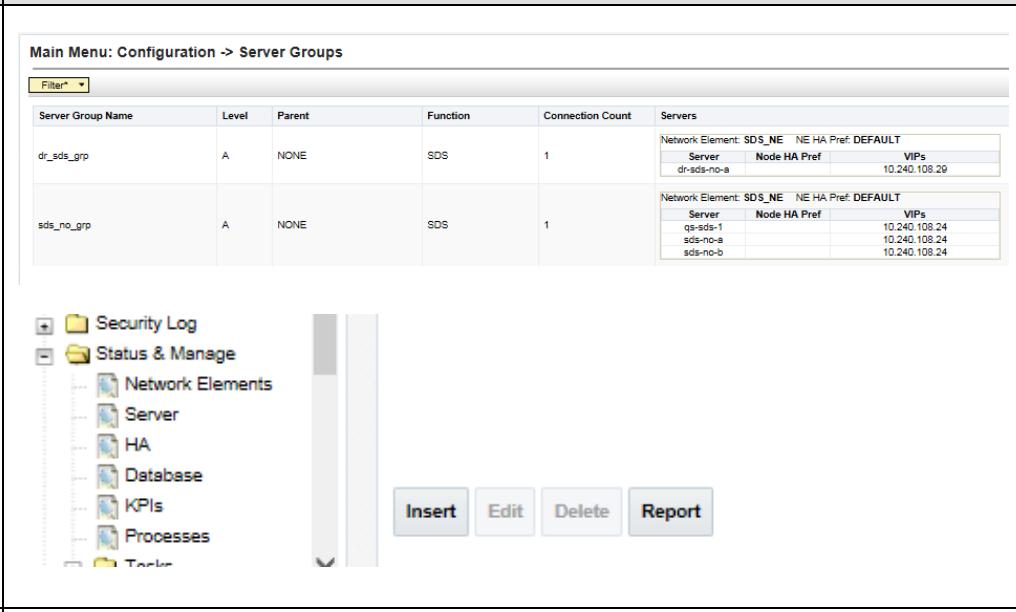
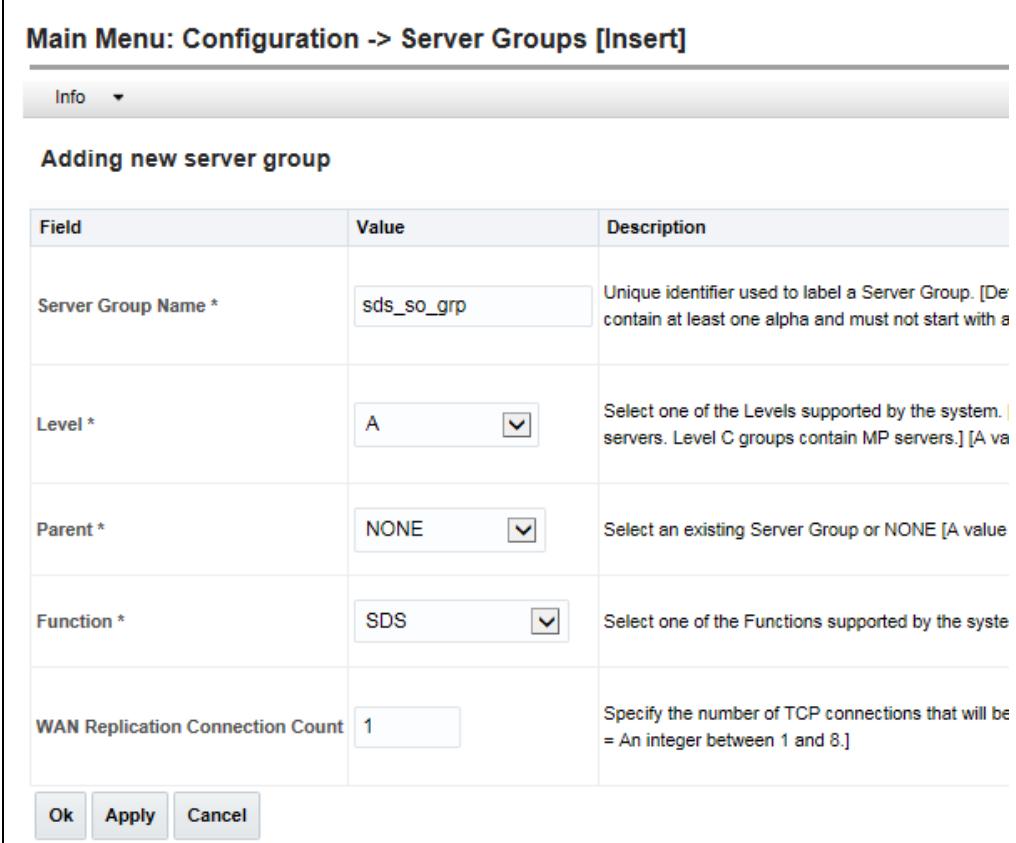
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
1.	<p>Primary SDS VIP:</p> <p>Launch an approved web browser and connect to the SDS VIP address</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>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 server.</p> <p>Security certificate problems may indicate an attempt to fool you or intercept your server.</p> <p>We recommend that you close this webpage and do not continue to:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Click here to close this webpage. <input type="checkbox"/> Continue to this website (not recommended). <input type="checkbox"/> More information
2.	<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>	 <p>ORACLE®</p> <p>Oracle System Login Tue May 31 14:34:34 2016 EDT</p> <div style="border: 1px solid #ccc; padding: 10px; width: 300px; margin: 20px auto;"> <p style="text-align: center;">Log In</p> <p>Enter your username and password to log in</p> <p>Username: <input type="text"/></p> <p>Password: <input type="password"/></p> <p><input type="checkbox"/> Change password</p> <p style="text-align: center;">Log In</p> </div> <p>Welcome to the Oracle System Login.</p> <p>This application is designed to work with most modern HTML5 compliant browsers and uses both JavaScript and cookies. Please refer to the Oracle Software Web Browser Support Policy for details.</p> <p>Unauthorized access is prohibited.</p> <p><small>Oracle and Java are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.</small></p> <p><small>Copyright © 2010, 2016, Oracle and/or its affiliates. All rights reserved.</small></p>

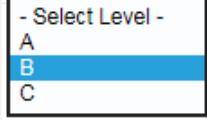
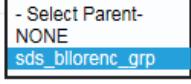
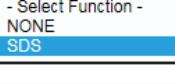
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result									
3.	<p>Primary SDS VIP:</p> <p>The user should be presented the SDS Main Menu as shown on the right.</p>	 <p>Communications Diameter Signal Router Full Address Resolution 8.0.0.0-80.3.1</p> <p>Main Menu: [Main]</p> <p>This is the user-defined It can be modified using the 'General Optic'</p> <p>Login Name: Last Login Time: 2023-09-01 10:00:00 Last Login IP: 192.168.1.100 Recent Failed Logins: 0</p> <p>Oracle and Java are registered trademarks of Oracle Corporation and/or its affiliates.</p>									
4.	<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: Configuration -> Server Groups</p> <p>Filter: <input type="button" value="▼"/></p> <table border="1"> <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> </table>	Server Group Name	Level	Parent	dr_sds_grp	A	NONE	sds_no_grp	A	NONE
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dr_sds_grp	A	NONE									
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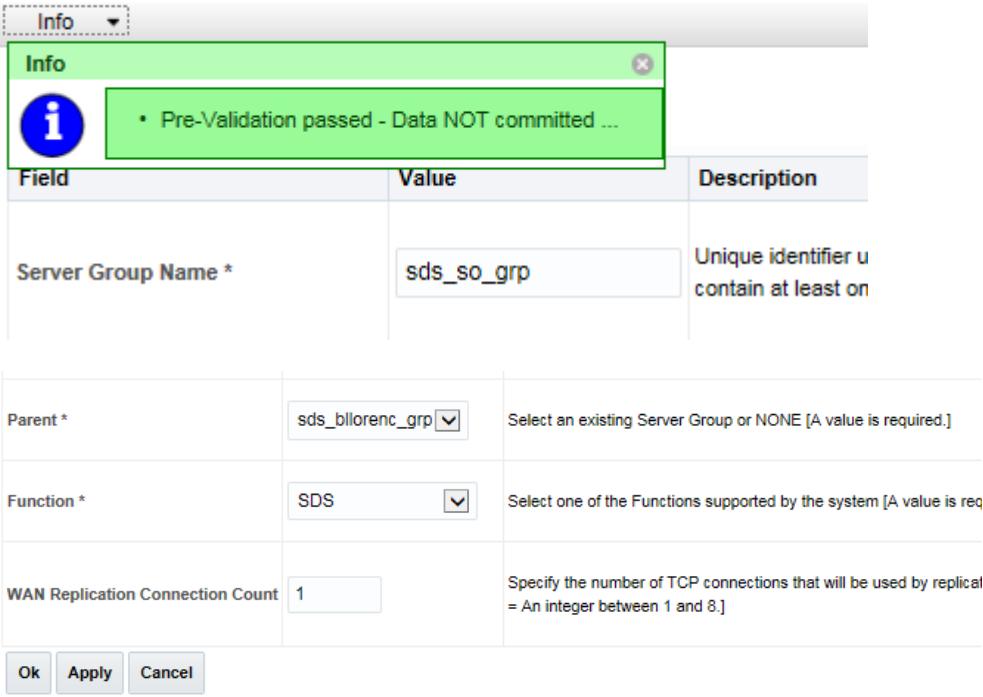
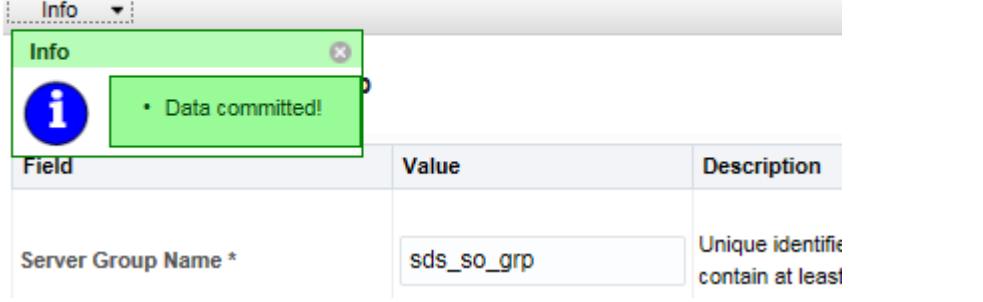
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
5.	<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>NOTE: The user may need to use the vertical scroll-bar in order to make the “Insert” dialogue button visible.</p>	
6.	<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>	

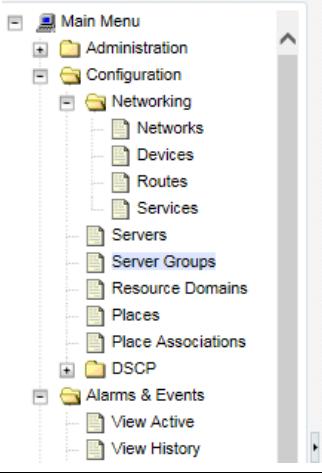
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result								
7. <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. [Does not contain at least one alpha and must not start with a number.]</td></tr> </tbody> </table>	Field	Value	Description	Server Group Name *	sds_so_grp	Unique identifier used to label a Server Group. [Does not contain at least one alpha and must not start with a number.]		
Field	Value	Description								
Server Group Name *	sds_so_grp	Unique identifier used to label a Server Group. [Does not contain at least one alpha and must not start with a number.]								
8. <input type="checkbox"/>	Primary SDS VIP: Select “B” on the “Level” pull-down menu...	Level * 		Select one of the Levels supported by the system [A value is required.]						
9. <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...	Parent * 		Select an existing Server Group or NONE [A value is required.]						
10. <input type="checkbox"/>	Primary SDS VIP: Select “SDS” on the “Function” pull-down menu.	Function * 		Select one of the Functions supported by the system [A value is required.]						

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

Step	Procedure	Result
11.	<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> 
12.	<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> 

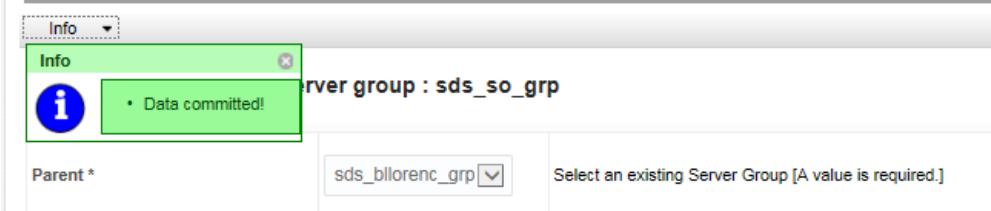
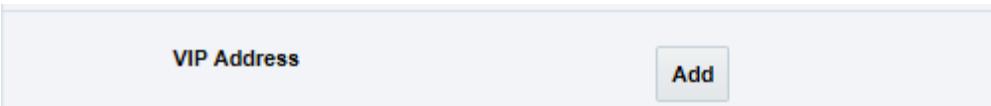
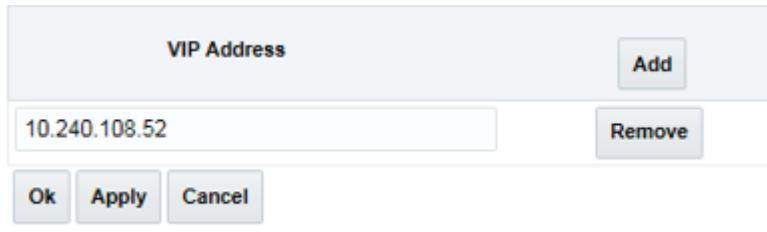
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result																																	
14.	<p>Primary SDS VIP: <input type="checkbox"/> 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> </tr> </thead> <tbody> <tr> <td>dr_sds_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> </tr> <tr> <td>sds_billorenc_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> </tr> <tr> <td>sds_so_grp</td> <td>B</td> <td>sds_billorenc_grp</td> <td>SDS</td> </tr> </tbody> </table>	Server Group Name	Level	Parent	Function	dr_sds_grp	A	NONE	SDS	sds_billorenc_grp	A	NONE	SDS	sds_so_grp	B	sds_billorenc_grp	SDS																	
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15.	<p>Primary SDS VIP: <input type="checkbox"/> 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> <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> Network Element: SDS_NE - NE HA Pref: DEFAULT <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>10.240.108.29</td> </tr> <tr> <td>sds-no-a</td> <td></td> <td>10.240.108.29</td> </tr> </tbody> </table> </td> </tr> <tr> <td>sds_billorenc_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>1</td> <td></td> </tr> <tr> <td>sds_so_grp</td> <td>B</td> <td>sds_billorenc_grp</td> <td>SDS</td> <td>1</td> <td></td> </tr> </tbody> </table>	Server Group Name	Level	Parent	Function	Connection Count	Servers	dr_sds_grp	A	NONE	SDS	1	Network Element: SDS_NE - NE HA Pref: DEFAULT <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>10.240.108.29</td> </tr> <tr> <td>sds-no-a</td> <td></td> <td>10.240.108.29</td> </tr> </tbody> </table>	Server	Node HA Pref	VIPs	qs-sds-1		10.240.108.29	sds-no-a		10.240.108.29	sds_billorenc_grp	A	NONE	SDS	1		sds_so_grp	B	sds_billorenc_grp	SDS	1	
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16.	<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>NOTE: The user may need to use the vertical scroll-bar in order to make the “Edit” dialogue button visible.</p>	<p>Main Menu: Configuration -> Server Groups</p> <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> Network Element: SDS_NE - NE HA Pref: DEFAULT <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>10.240.108.29</td> </tr> <tr> <td>sds-no-a</td> <td></td> <td>10.240.108.29</td> </tr> </tbody> </table> </td> </tr> <tr> <td>sds_billorenc_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>1</td> <td></td> </tr> <tr> <td>sds_so_grp</td> <td>B</td> <td>sds_billorenc_grp</td> <td>SDS</td> <td>1</td> <td></td> </tr> </tbody> </table> <p>Insert Edit Delete Report</p>	Server Group Name	Level	Parent	Function	Connection Count	Servers	dr_sds_grp	A	NONE	SDS	1	Network Element: SDS_NE - NE HA Pref: DEFAULT <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>10.240.108.29</td> </tr> <tr> <td>sds-no-a</td> <td></td> <td>10.240.108.29</td> </tr> </tbody> </table>	Server	Node HA Pref	VIPs	qs-sds-1		10.240.108.29	sds-no-a		10.240.108.29	sds_billorenc_grp	A	NONE	SDS	1		sds_so_grp	B	sds_billorenc_grp	SDS	1	
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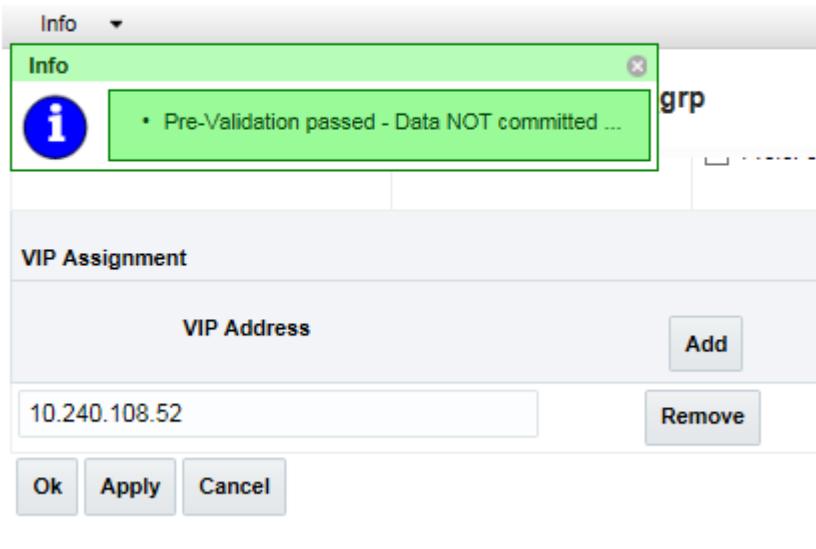
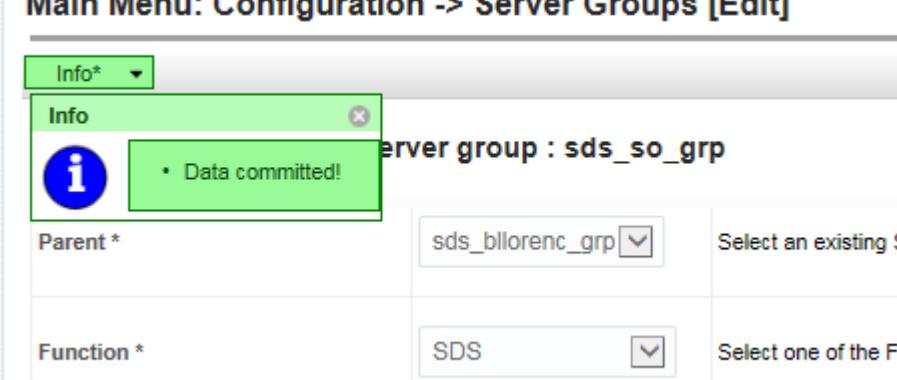
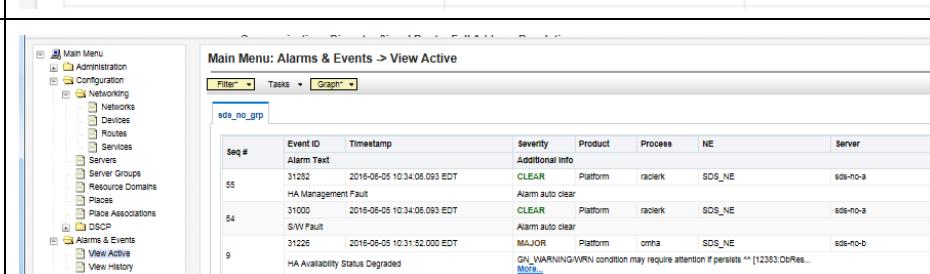
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result						
17.	<p>Primary SDS VIP: <input type="checkbox"/> 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> 						
18.	<p>Primary SDS VIP: <input type="checkbox"/> 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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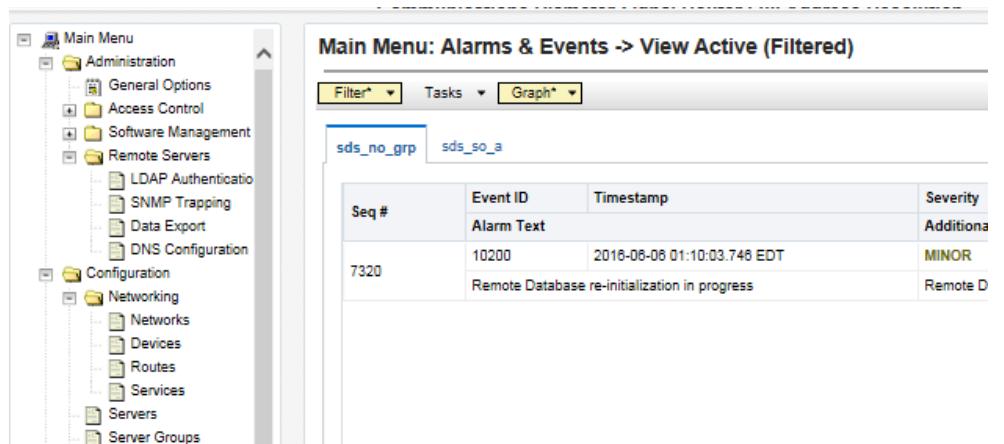
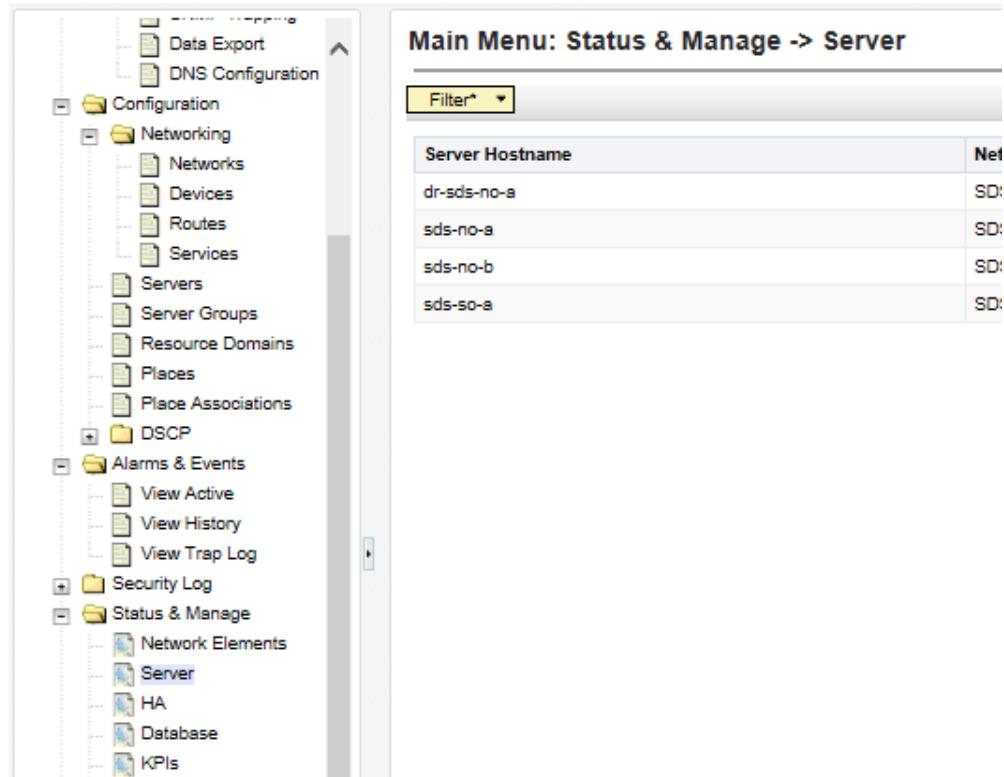
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
19.	Primary SDS VIP: 1) The user should be presented with a banner information message stating “ Pre-Validation passed ”. 2) Select the “ Apply ” dialogue button.	
20.	Primary SDS VIP: The user should be presented with a banner information message stating “ Data committed ”.	
21.	Primary SDS VIP: Click the “ Add ” dialogue button for the VIP Address .	
22.	Primary SDS VIP: Input the VIP Address	
23.	Primary SDS VIP: Click the “ Apply ” dialogue button.	

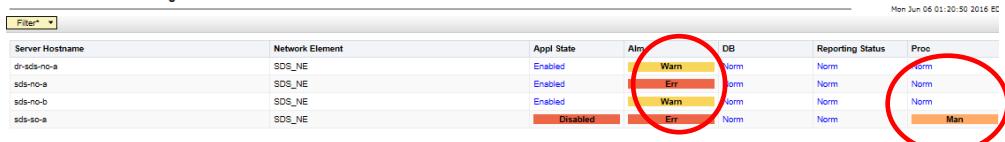
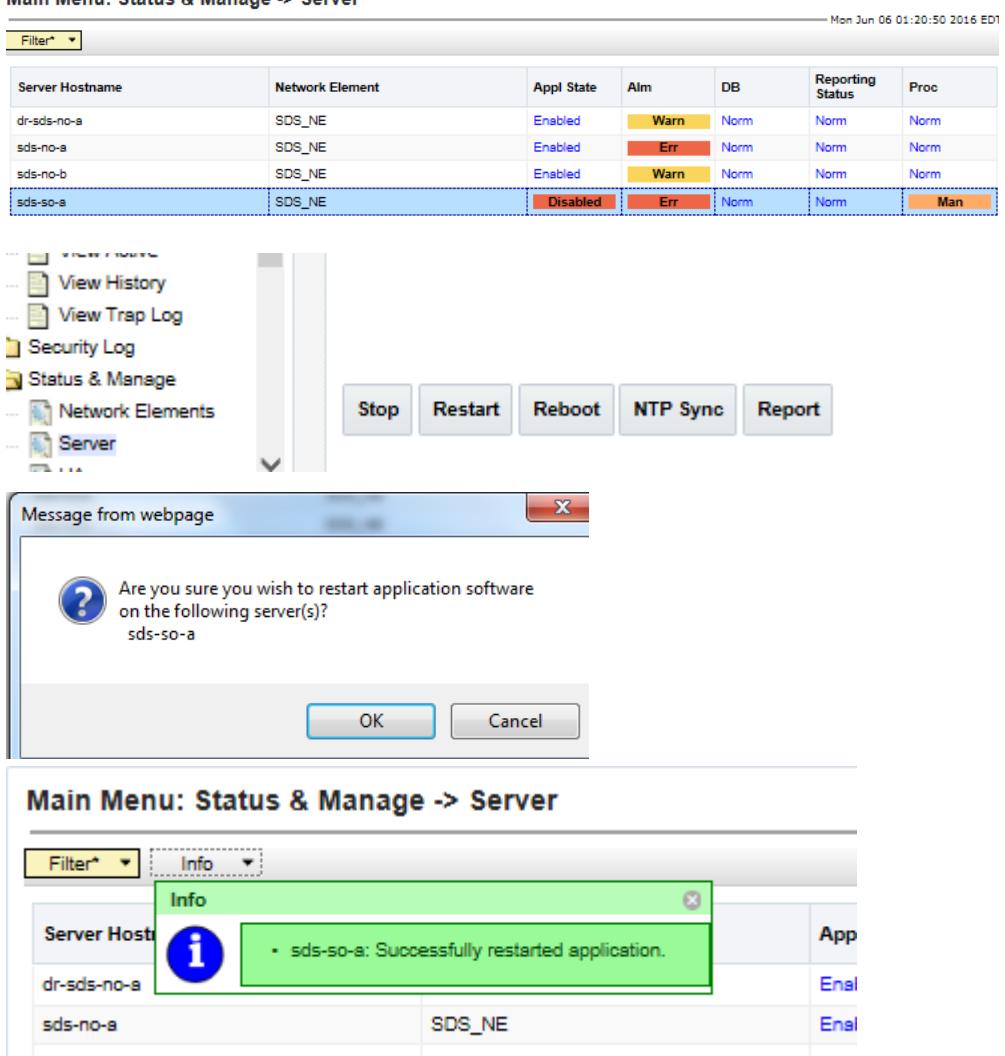
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
24.	<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 [Edit]</p> 
25.	<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 [Edit]</p> 
26.	<p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu → Alarms & Events → View Active</p> <p>...as shown on the right.</p>	

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

Step	Procedure	Result
27.	<p>Primary SDS VIP: Verify that Event ID 10200 (Remote Database re-initialization in progress) alarms are present with the SDS SOAM Server hostnames in the “Instance” field..</p>	
<p> 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 BOTH SDS SOAM SERVERS.</p>		
28.	<p><input type="checkbox"/> Primary SDS VIP: Select... <u>Main Menu</u> → Status & Manage → Server ...as shown on the right.</p>	

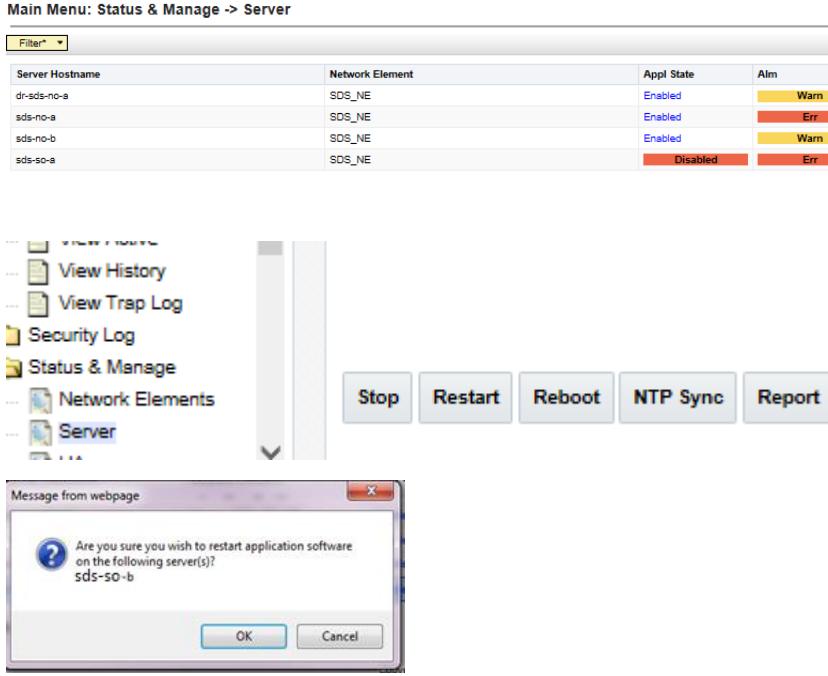
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
29.	<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>	
30.	<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>	

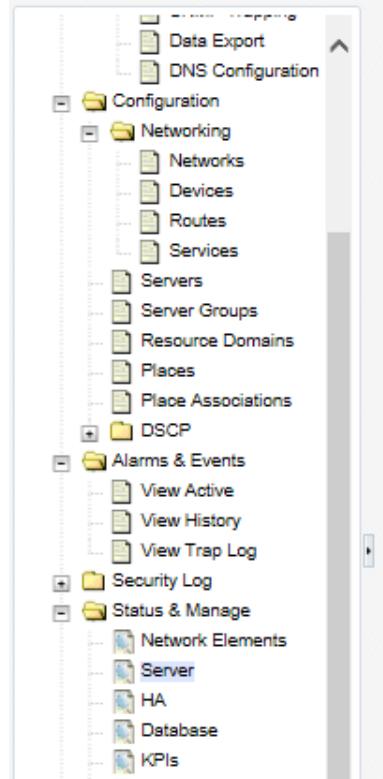
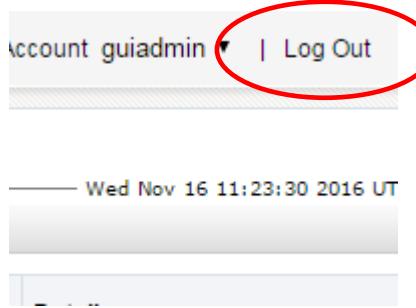
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result																																			
31.	<p>Primary SDS VIP: <input type="checkbox"/> 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> <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>	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
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32.	<p>Primary SDS VIP: <input type="checkbox"/> 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>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>	<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>	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
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Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result																																				
33.	<p>Primary SDS VIP:</p> <p>1) Using the mouse, select SOAM 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 SOAM Server B stating: “Successfully restarted application”.</p>	 <p>Main Menu: Status & Manage -> Server</p> <p>Server Hostname Network Element Appl State Alm DB Repo</p> <table border="1"> <tr> <td>dr-sds-no-a</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</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> </tr> <tr> <td>sds-no-b</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-so-a</td> <td>SDS_NE</td> <td>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> </tr> </table> <p>Filter* View History View Trap Log Security Log Status & Manage Network Elements Server Stop Restart Reboot NTP Sync Report</p> <p>Message from webpage</p> <p>Are you sure you wish to restart application software on the following server(s)? sds-so-b</p> <p>OK Cancel</p> <p>Main Menu: Status & Manage -> Server</p> <p>Filter* Info</p> <table border="1"> <tr> <td>Server Host</td> <td>Info</td> <td>App</td> </tr> <tr> <td>dr-sds-no-a</td> <td>i sds-so-b: Successfully restarted application.</td> <td>Enal</td> </tr> <tr> <td>sds-no-a</td> <td>SDS_NE</td> <td>Enal</td> </tr> <tr> <td>sds-no-b</td> <td>SDS_NE</td> <td>Enal</td> </tr> </table>	dr-sds-no-a	SDS_NE	Enabled	Warn	Norm	Norm	sds-no-a	SDS_NE	Enabled	Err	Norm	Norm	sds-no-b	SDS_NE	Enabled	Warn	Norm	Norm	sds-so-a	SDS_NE	Disabled	Err	Norm	Norm	Server Host	Info	App	dr-sds-no-a	i sds-so-b: Successfully restarted application.	Enal	sds-no-a	SDS_NE	Enal	sds-no-b	SDS_NE	Enal
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Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result																																			
34.	<p>Primary SDS VIP: <input type="checkbox"/> 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> <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>	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
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35.	<p>Primary SDS VIP: <input type="checkbox"/> 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>	<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>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
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36.	<p>Primary SDS VIP: <input type="checkbox"/> Click the “Logout” link on the SDS server GUI.</p>	 <p>Account guiadmin Logout</p> <p>Wed Nov 16 11:23:30 2016 UT</p>																																			

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

Step	Procedure	Result
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.

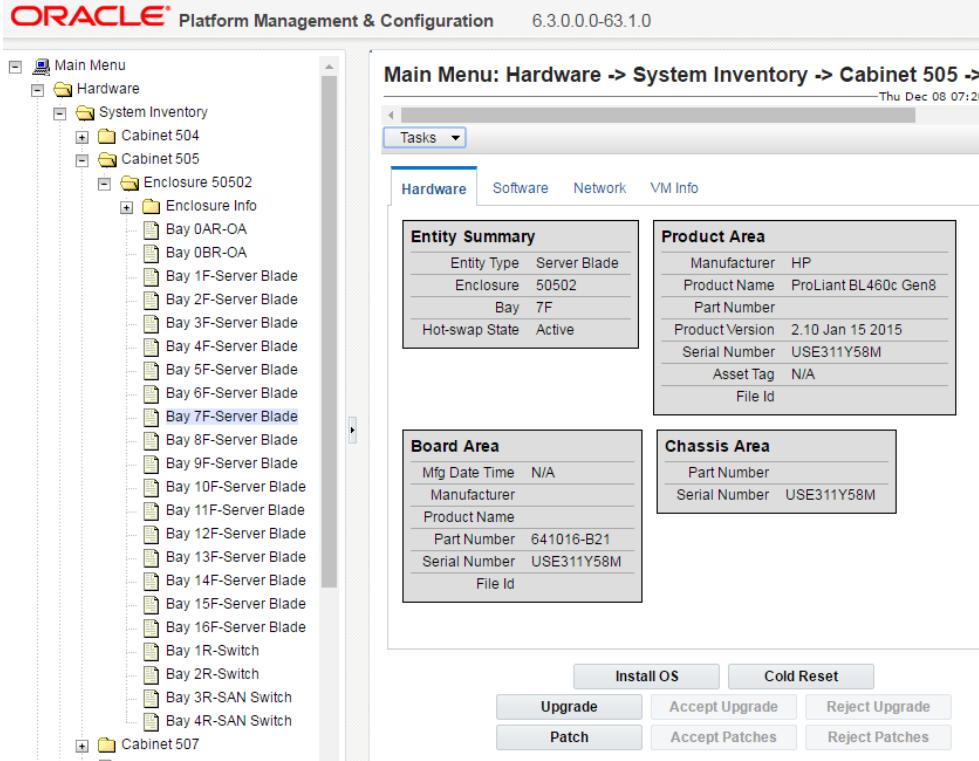
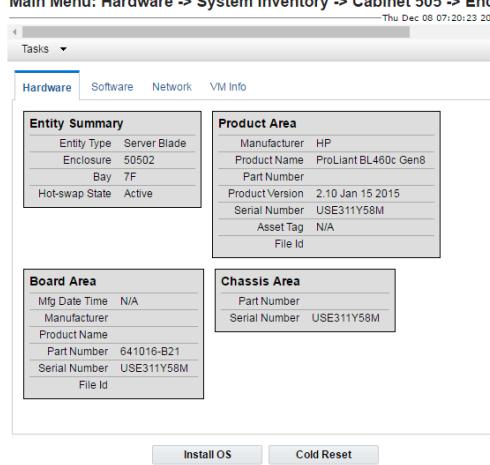
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
 EXECUTE Appendix I: (Disable Hyperthreading For GEN8 & Gen9 (DP Only) ON EACH DP BLADE AFTER THIS PROCEDURE.		
1.	<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: If presented with the “security certificate” warning screen shown to the right, choose the following option: “Continue to this website (not recommended)”.</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 server.</p> <p>Security certificate problems may indicate an attempt to fool you or intercept your information.</p> <p>We recommend that you close this webpage and do not continue to this website.</p> <p> <input checked="" type="radio"/> Click here to close this webpage. <input type="radio"/> Continue to this website (not recommended). <input type="radio"/> More information </p>

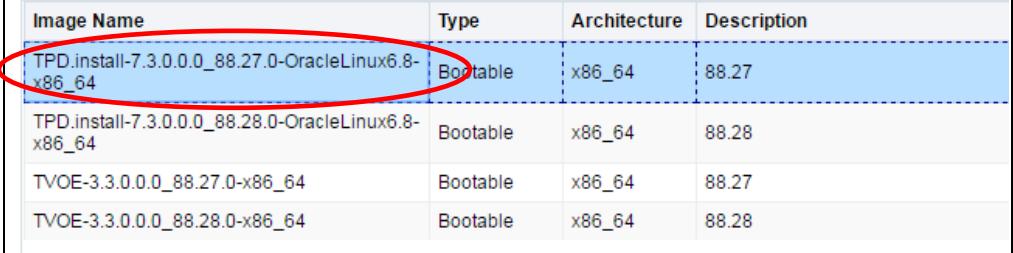
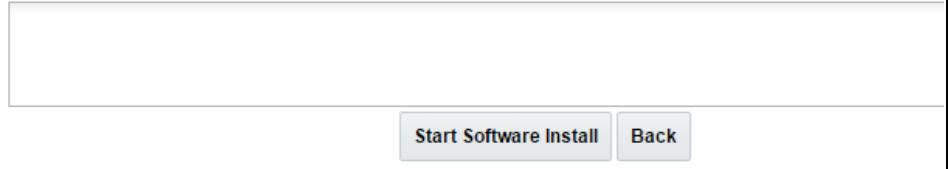
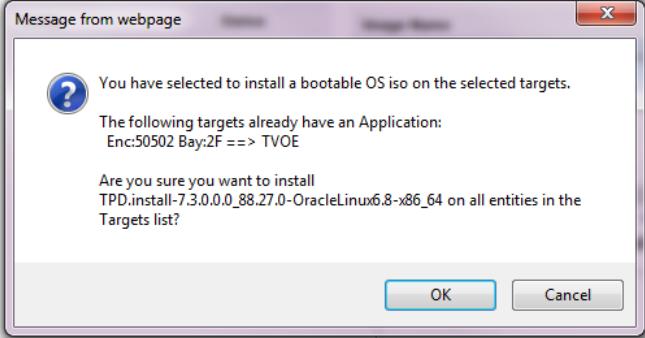
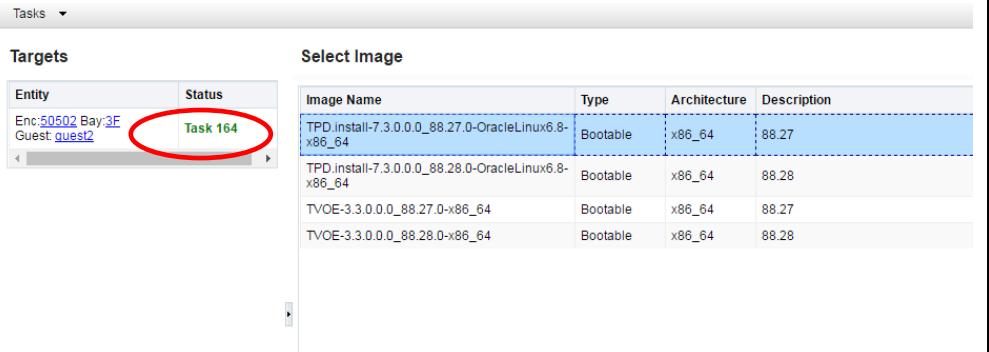
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
2.	PMAC Guest VM: <input type="checkbox"/> <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>	
3.	PMAC Guest VM: <input type="checkbox"/> <p>The user should be presented the PMAC Main Menu as shown on the right...</p>	

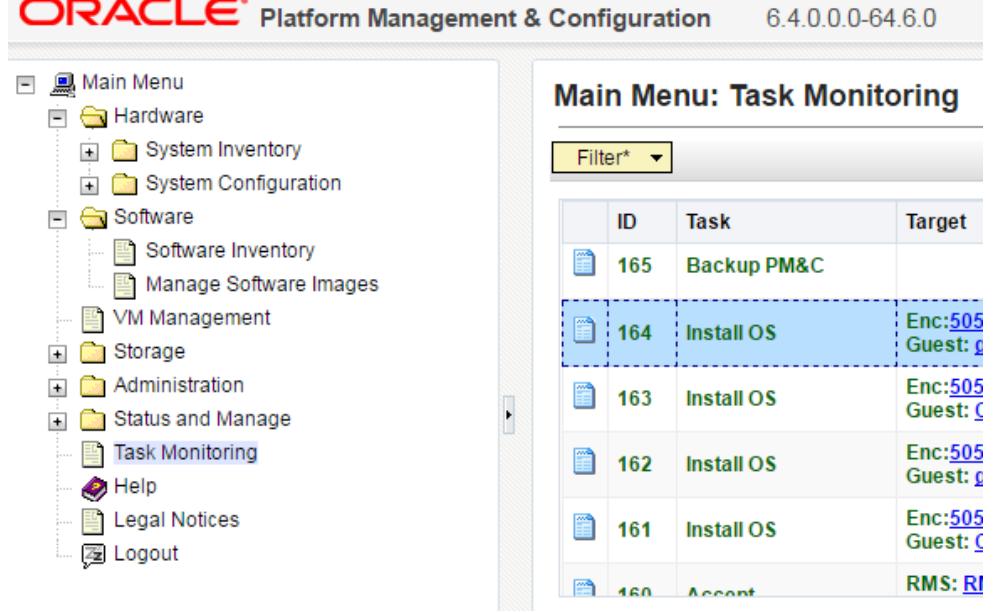
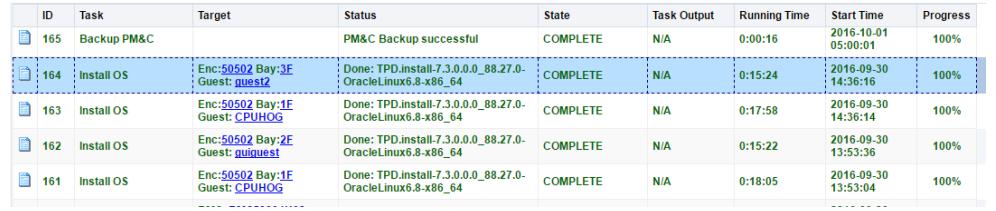
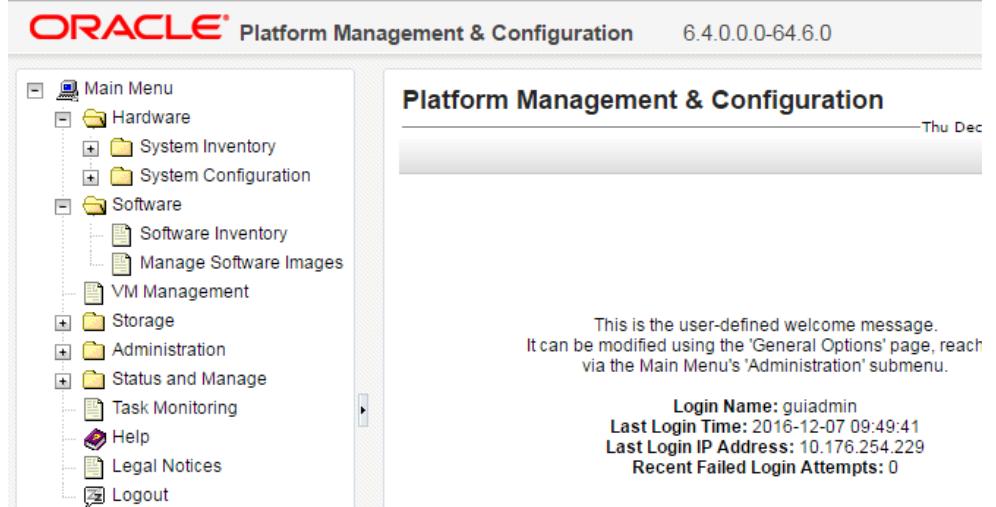
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																																						
4.	<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>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> <p>Product Area</p> <table border="1"> <tr><td>Manufacturer</td><td>HP</td></tr> <tr><td>Product Name</td><td>ProLiant BL460c Gen8</td></tr> <tr><td>Part Number</td><td></td></tr> <tr><td>Product Version</td><td>2.10 Jan 15 2015</td></tr> <tr><td>Serial Number</td><td>USE311Y58M</td></tr> <tr><td>Asset Tag</td><td>N/A</td></tr> <tr><td>File Id</td><td></td></tr> </table> <p>Board Area</p> <table border="1"> <tr><td>Mfg Date Time</td><td>N/A</td></tr> <tr><td>Manufacturer</td><td></td></tr> <tr><td>Product Name</td><td></td></tr> <tr><td>Part Number</td><td>641016-B21</td></tr> <tr><td>Serial Number</td><td>USE311Y58M</td></tr> <tr><td>File Id</td><td></td></tr> </table> <p>Chassis Area</p> <table border="1"> <tr><td>Part Number</td><td></td></tr> <tr><td>Serial Number</td><td>USE311Y58M</td></tr> </table> <p>Install OS Cold Reset Upgrade Accept Upgrade Reject Upgrade Patch Accept Patches Reject Patches</p>	Entity Type	Server Blade	Enclosure	50502	Bay	7F	Hot-swap State	Active	Manufacturer	HP	Product Name	ProLiant BL460c Gen8	Part Number		Product Version	2.10 Jan 15 2015	Serial Number	USE311Y58M	Asset Tag	N/A	File Id		Mfg Date Time	N/A	Manufacturer		Product Name		Part Number	641016-B21	Serial Number	USE311Y58M	File Id		Part Number		Serial Number	USE311Y58M
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5.	<p>PMAC Guest VM:</p> <p>Install the operating system by clicking the “Install OS” dialogue button</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> <p>Product Area</p> <table border="1"> <tr><td>Manufacturer</td><td>HP</td></tr> <tr><td>Product Name</td><td>ProLiant BL460c Gen8</td></tr> <tr><td>Part Number</td><td></td></tr> <tr><td>Product Version</td><td>2.10 Jan 15 2015</td></tr> <tr><td>Serial Number</td><td>USE311Y58M</td></tr> <tr><td>Asset Tag</td><td>N/A</td></tr> <tr><td>File Id</td><td></td></tr> </table> <p>Board Area</p> <table border="1"> <tr><td>Mfg Date Time</td><td>N/A</td></tr> <tr><td>Manufacturer</td><td></td></tr> <tr><td>Product Name</td><td></td></tr> <tr><td>Part Number</td><td>641016-B21</td></tr> <tr><td>Serial Number</td><td>USE311Y58M</td></tr> <tr><td>File Id</td><td></td></tr> </table> <p>Chassis Area</p> <table border="1"> <tr><td>Part Number</td><td></td></tr> <tr><td>Serial Number</td><td>USE311Y58M</td></tr> </table> <p>Install OS Cold Reset Upgrade Accept Upgrade Reject Upgrade Patch Accept Patches Reject Patches</p>	Entity Type	Server Blade	Enclosure	50502	Bay	7F	Hot-swap State	Active	Manufacturer	HP	Product Name	ProLiant BL460c Gen8	Part Number		Product Version	2.10 Jan 15 2015	Serial Number	USE311Y58M	Asset Tag	N/A	File Id		Mfg Date Time	N/A	Manufacturer		Product Name		Part Number	641016-B21	Serial Number	USE311Y58M	File Id		Part Number		Serial Number	USE311Y58M
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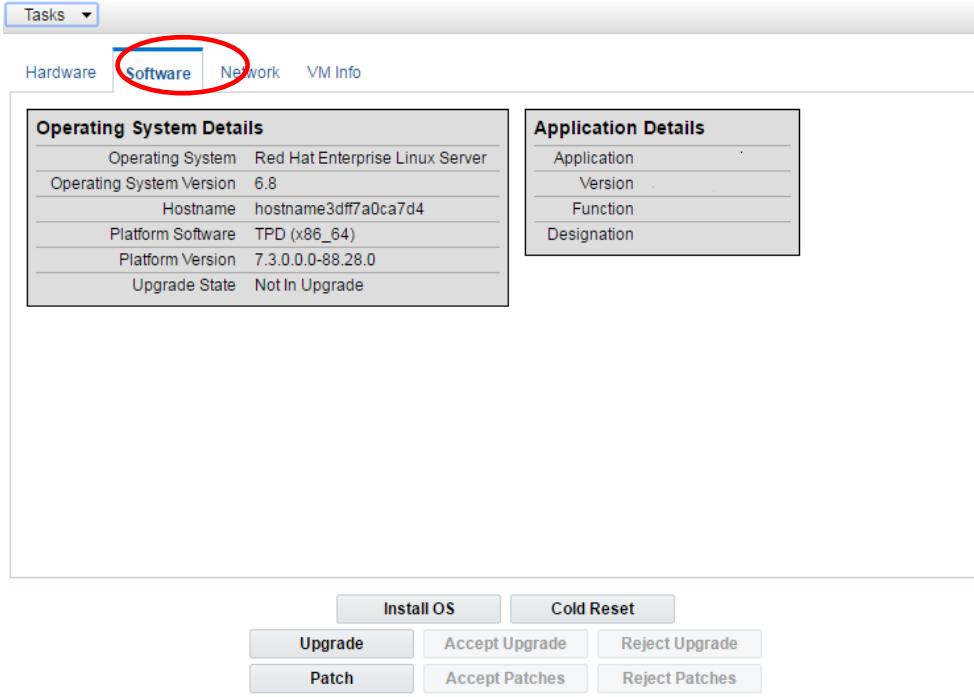
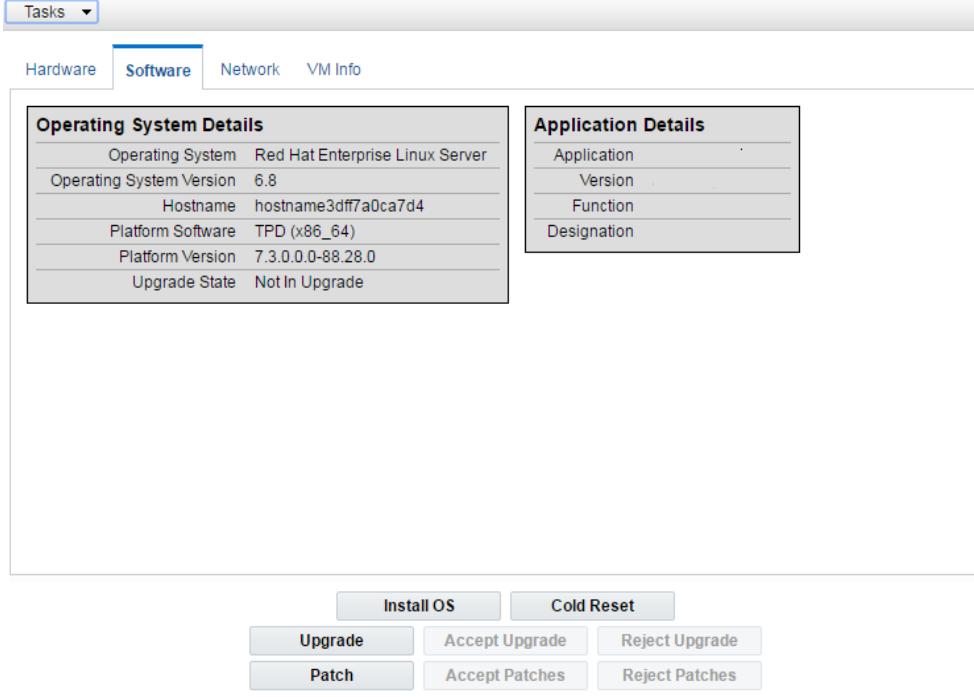
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																										
6.	PMAC Guest VM: <input type="checkbox"/> 1) Select the desired TPD Image <input type="checkbox"/> 2) Click the “Start Software Install” dialogue button	<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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7.	PMAC Guest VM: <input type="checkbox"/> The user should be presented with an “Are you sure you want to install” message box as shown on the right. <input type="checkbox"/> Click the “OK” dialogue button																											
8.	PMAC Guest VM: <input type="checkbox"/> Note the task number assigned to SDS Application upgrade. This number will be used to track its progress. <input type="checkbox"/> This task takes up to ~25 minutes.	<p>Software Install - Select Image</p>  <table border="1"> <thead> <tr> <th>Entity</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>Enc:50502 Bay:3F</td> <td>Task 164</td> </tr> <tr> <td>Guest: quest2</td> <td></td> </tr> </tbody> </table> <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:3F	Task 164	Guest: quest2		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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9.	<input type="checkbox"/> Execute “Install OS” for each additional DP Server.	<ul style="list-style-type: none"> Repeat Steps 4 - 8 of this procedure for each additional DP server blade in the SOAM enclosure. 																										

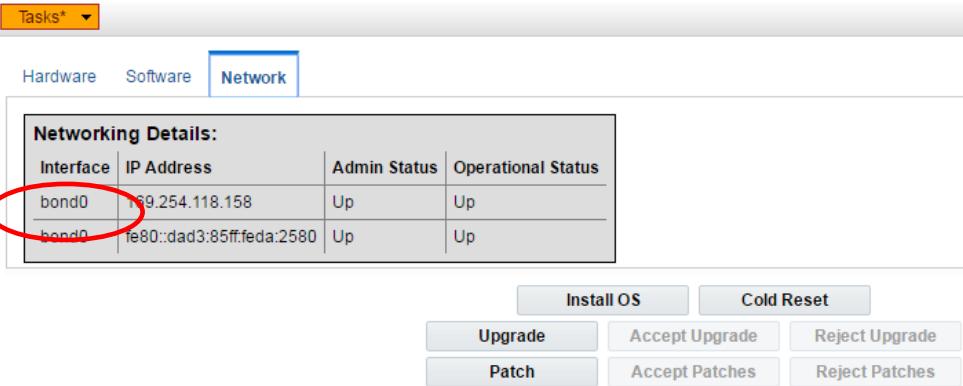
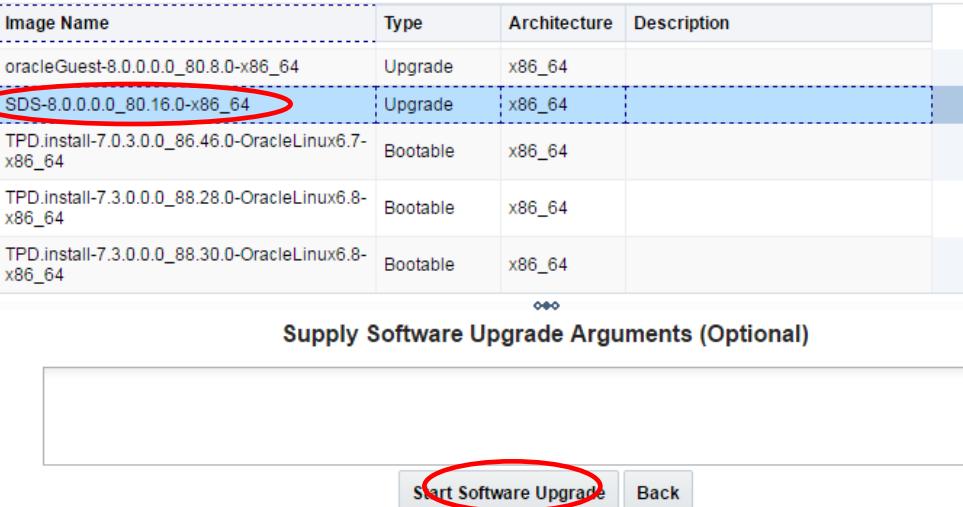
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
10. <input type="checkbox"/>	PMAC Guest VM: 1) Select... Main Menu → Task Monitoring ...as shown on the right.	
11. <input type="checkbox"/>	PMAC Guest VM: Wait till Progress is 100% with a Status of Success and a State of Complete. Then proceed to the next step.	
12. <input type="checkbox"/>	PMAC Guest VM: Re-select the designated DP server blade from the Menu... Main Menu → Hardware → System Inventory → <Cabinet> → <Enclosure> → <Server Blade> ...as shown on the right.	

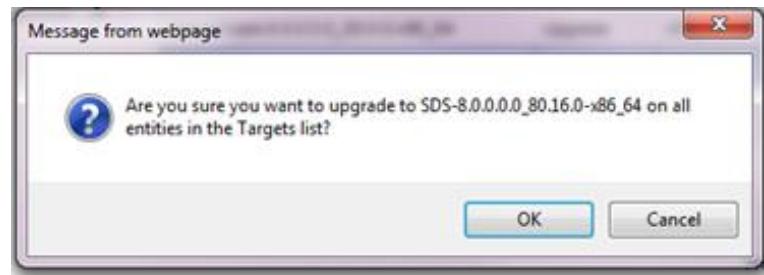
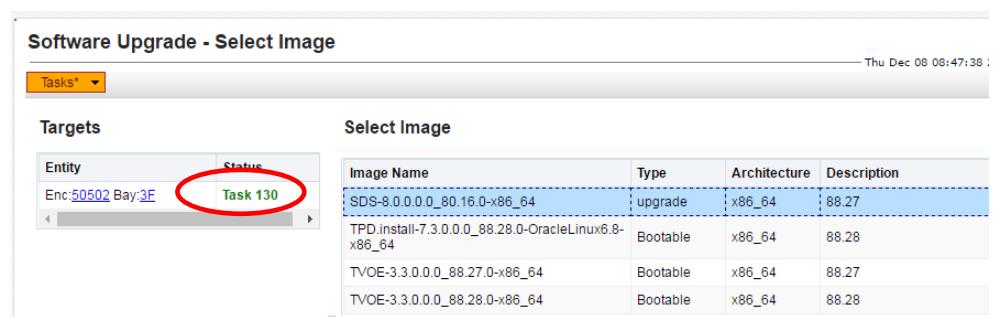
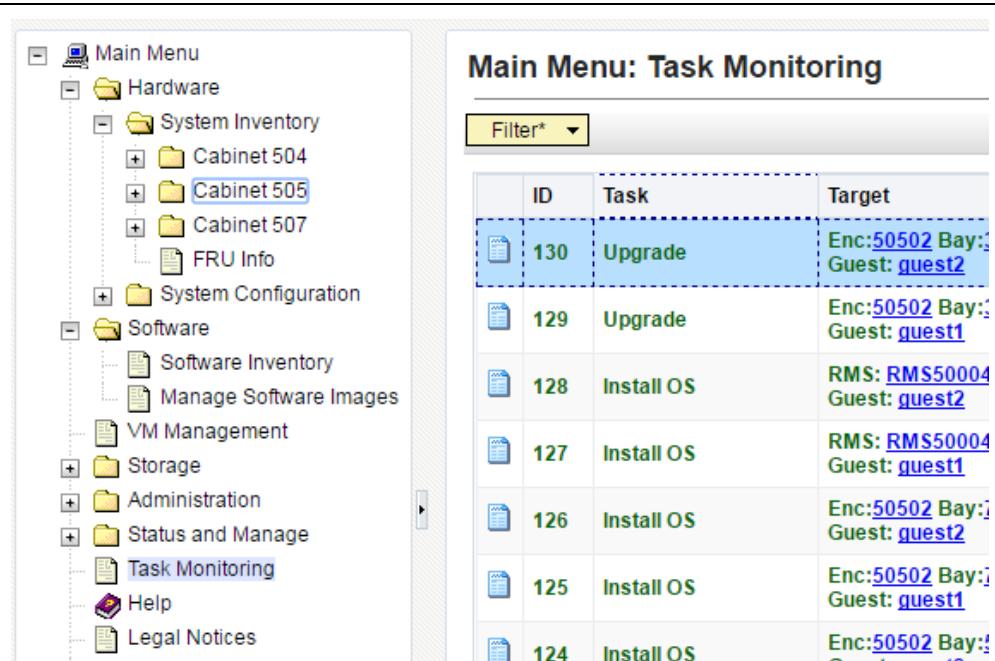
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
13.	PMAC Guest VM: <input type="checkbox"/> Select the “Software” tab.	<p>Main Menu: Hardware -> System Inventory -> Cabinet 505 -> Enclosure 50502 - Bay 3F Thu Dec 08 07:35:51 2016</p>  <p>Tasks</p> <p>Hardware Software Network VM Info</p> <p>Operating System Details</p> <ul style="list-style-type: none"> 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 <p>Application Details</p> <ul style="list-style-type: none"> Application Version Function Designation <p>Install OS Cold Reset</p> <p>Upgrade Accept Upgrade Reject Upgrade</p> <p>Patch Accept Patches Reject Patches</p>
14.	PMAC Guest VM: <input type="checkbox"/> 1) Verify the correct TPD is shown. 2) Verify “Application Details” are blank.	<p>Main Menu: Hardware -> System Inventory -> Cabinet 505 -> Enclosure 50502 - Bay 3F Thu Dec 08 07:35:51 2016</p>  <p>Tasks</p> <p>Hardware Software Network VM Info</p> <p>Operating System Details</p> <ul style="list-style-type: none"> 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 <p>Application Details</p> <ul style="list-style-type: none"> Application Version Function Designation <p>Install OS Cold Reset</p> <p>Upgrade Accept Upgrade Reject Upgrade</p> <p>Patch Accept Patches Reject Patches</p>

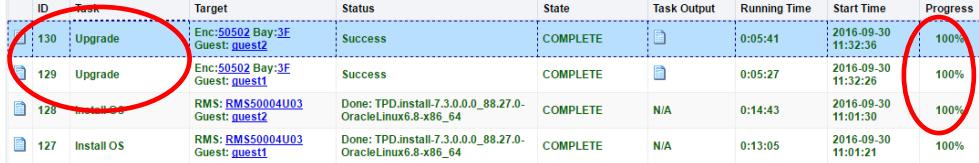
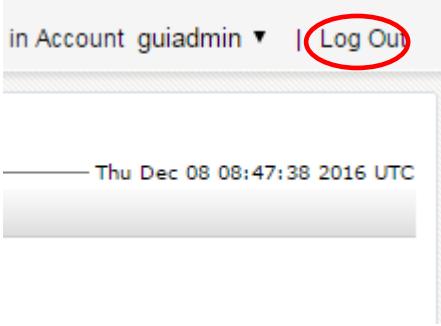
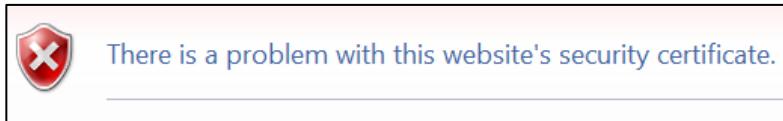
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																								
15.	<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</p> 																								
16.	<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 style="outline: 2px solid red;">SDS-8.0.0.0_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</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_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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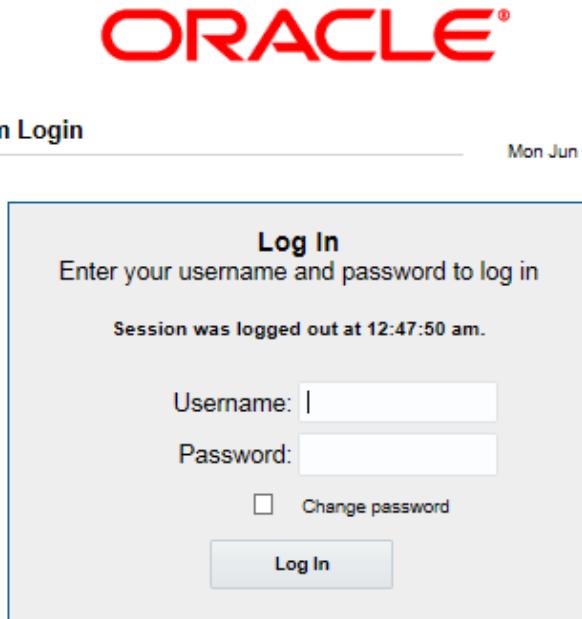
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																								
17. <input type="checkbox"/>	PMAC Guest VM: The user should be presented with an “Are you sure you want to upgrade” message boxas shown on the right. Click the “OK” dialogue button.																									
18. <input type="checkbox"/>	PMAC Guest VM: Note the task number assigned to upgrade SDS application. This number will be used to track its progress. This task takes up to ~20 minutes.																									
19. <input type="checkbox"/>	Install SDS SW on each remaining DP server blade.	<ul style="list-style-type: none"> Repeat Steps 10 - 18 of this procedure for each additional DP server blade installed in the SOAM enclosure. 																								
20. <input type="checkbox"/>	PMAC Guest VM: Select... <u>Main Menu</u> → Task Monitoring ...as shown on the right.	 <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:3F Guest: guest2</td> </tr> <tr> <td>129</td> <td>Upgrade</td> <td>Enc:50502 Bay:3F 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:3F Guest: guest2</td> </tr> <tr> <td>125</td> <td>Install OS</td> <td>Enc:50502 Bay:3F Guest: guest1</td> </tr> <tr> <td>124</td> <td>Install OS</td> <td>Enc:50502 Bay:3F Guest: guest2</td> </tr> </tbody> </table>	ID	Task	Target	130	Upgrade	Enc:50502 Bay:3F Guest: guest2	129	Upgrade	Enc:50502 Bay:3F Guest: guest1	128	Install OS	RMS: RMS50004 Guest: guest2	127	Install OS	RMS: RMS50004 Guest: guest1	126	Install OS	Enc:50502 Bay:3F Guest: guest2	125	Install OS	Enc:50502 Bay:3F Guest: guest1	124	Install OS	Enc:50502 Bay:3F Guest: guest2
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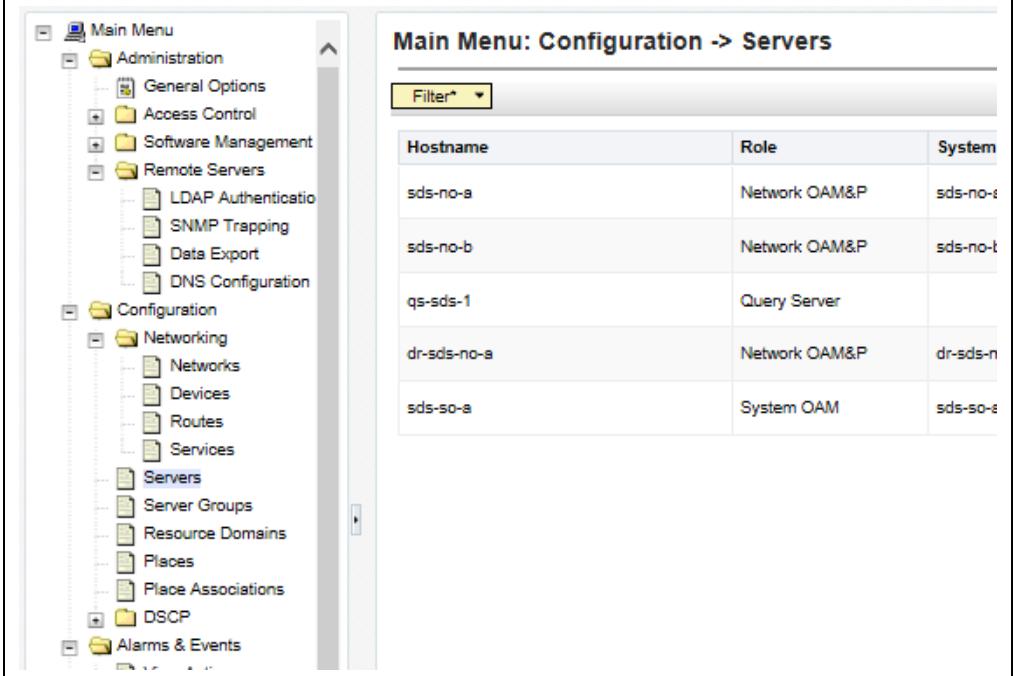
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
21. <input type="checkbox"/>	PMAC Guest VM: Wait till Progress is 100% with a Status of Success and a State of Complete. Then proceed to the next step.	
22. <input type="checkbox"/>	PMAC Guest VM:: Click the “Logout” link on the PMAC server GUI.	
23. <input type="checkbox"/>	Primary SDS VIP: Launch an approved web browser and connect to the XML Virtual IP address (VIP) assigned to Active SDS site NOTE: If presented with the “security certificate” warning screen shown to the right, choose the following option: “Continue to this website (not recommended)”.	 <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 intercept your traffic. It is possible that you are not connected to the site you intended to connect to.</p> <p>We recommend that you close this webpage and do not continue to this website.</p> <p> <input checked="" type="checkbox"/> Click here to close this webpage. <input checked="" type="checkbox"/> Continue to this website (not recommended). <input type="checkbox"/> More information </p>

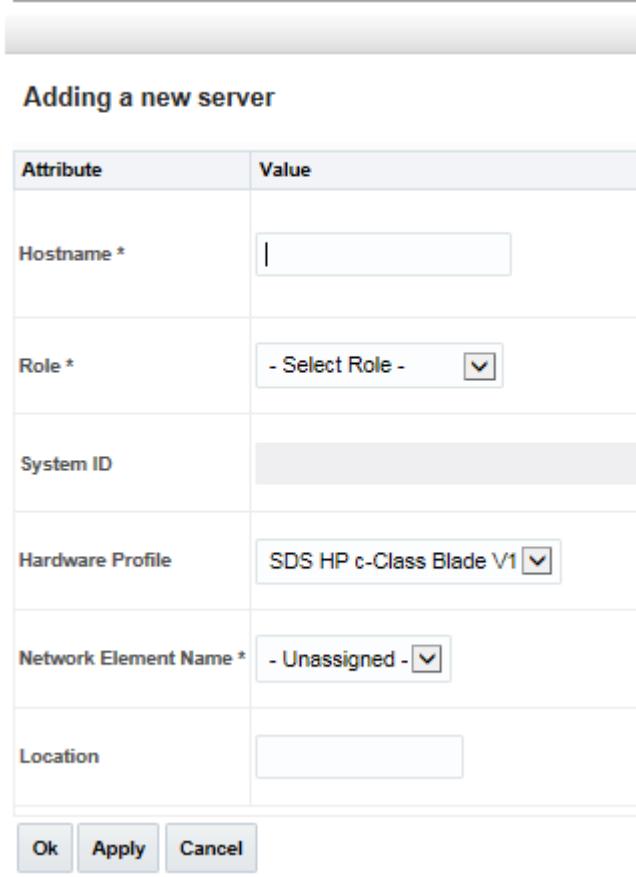
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
24.	<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>	 <p>ORACLE®</p> <p>Oracle System Login</p> <p>Mon Jun 6 00:47:50 2016 EDT</p> <p>Log In Enter your username and password to log in</p> <p>Session was logged out at 12:47:50 am.</p> <p>Username: <input type="text"/></p> <p>Password: <input type="password"/></p> <p><input type="checkbox"/> Change password</p> <p>Log In</p> <p>Welcome to the Oracle System Login.</p> <p>This application is designed to work with most modern HTML5 compliant browsers and uses both JavaScript and cookies. Please refer to the Oracle Software Web Browser Support Policy for details.</p> <p>Unauthorized access is prohibited.</p> <p>Oracle and Java are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.</p> <p>Copyright © 2010, 2016, Oracle and/or its affiliates. All rights reserved.</p>
25.	<p>Primary SDS VIP:</p> <p>The user should be presented the SDS Main Menu as shown on the right.</p>	 <p>ORACLE® Communications Diameter Signal Router Full Address Resolution 0.61219</p> <p>Main Menu: [Main]</p> <p>Thu Jun 28 04:28:00 2016 EDT</p> <p>Main Menu</p> <ul style="list-style-type: none"> Administration Configuration Alarms & Events Security Log Status & Manage Measurements Communication Agent SDS Help Legal Notices Logout <p>This is the user-defined welcome message. It can be modified using the 'General Options' item under the 'Administration' menu.</p> <p>Login Name: guiladmin Last Login Time: 2016-06-28 04:09:22 Last Login IP: 10.240.23.211 Recent Failed Login Attempts: 0</p> <p>Oracle and Java are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.</p> <p>Copyright © 2010, 2016, Oracle and/or its affiliates. All rights reserved.</p>

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

Step	Procedure	Result																		
26.	<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>	 <p>The screenshot shows the SDS 8.4 Configuration interface. On the left is a tree view of the Main Menu, with the 'Servers' node under 'Configuration' expanded. On the right is a table titled 'Main Menu: Configuration -> Servers' with the following data:</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-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-n</td> </tr> <tr> <td>sds-so-a</td> <td>System OAM</td> <td>sds-so-a</td> </tr> </tbody> </table>	Hostname	Role	System	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-n	sds-so-a	System OAM	sds-so-a
Hostname	Role	System																		
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dr-sds-no-a	Network OAM&P	dr-sds-n																		
sds-so-a	System OAM	sds-so-a																		

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

Step	Procedure	Result																	
27.	<p>Primary SDS VIP: <input type="checkbox"/> The user is now presented with the “Adding a new server” configuration screen.</p>	<p>Main Menu: Configuration > Servers [Insert]</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="▼"/></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="▼"/></td> </tr> <tr> <td>Network Element Name *</td> <td>- Unassigned - <input type="button" value="▼"/></td> </tr> <tr> <td>Location</td> <td><input type="text"/></td> </tr> <tr> <td style="text-align: center;"><input type="button" value="Ok"/></td> <td style="text-align: center;"><input type="button" value="Apply"/></td> <td style="text-align: center;"><input type="button" value="Cancel"/></td> </tr> </tbody> </table>	Attribute	Value	Hostname *	<input type="text"/>	Role *	- Select Role - <input type="button" value="▼"/>	System ID	<input type="text"/>	Hardware Profile	SDS HP c-Class Blade V1 <input type="button" value="▼"/>	Network Element Name *	- Unassigned - <input type="button" value="▼"/>	Location	<input type="text"/>	<input type="button" value="Ok"/>	<input type="button" value="Apply"/>	<input type="button" value="Cancel"/>
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28.	<p>Primary SDS VIP: <input type="checkbox"/> 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><input type="text" value="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 *	<input type="text" value="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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29.	<p>Primary SDS VIP: <input type="checkbox"/> Select “MP” for the server Role from the pull-down menu.</p>	<table border="1"> <thead> <tr> <th>Role *</th> <th style="text-align: center;">- Select Role -</th> <th style="text-align: center;">end with an alphanumeric.] [A value is required.]</th> </tr> </thead> <tbody> <tr> <td></td> <td style="text-align: center;">NETWORK OAM&P</td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">SYSTEM OAM</td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">MP</td> <td style="text-align: center;">Select the function of the server [A value is required.]</td> </tr> <tr> <td></td> <td style="text-align: center;">QUERY SERVER</td> <td></td> </tr> </tbody> </table>	Role *	- Select Role -	end with an alphanumeric.] [A value is required.]		NETWORK OAM&P			SYSTEM OAM			MP	Select the function of the server [A value is required.]		QUERY SERVER			
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Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																				
30.	<p>Primary SDS VIP: <input type="checkbox"/> 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 XML switch pair in the c-Class enclosure.</i></p>	<p>Hardware Profile</p> <div style="border: 1px solid black; padding: 5px; display: inline-block;"> 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>	<p>Hardware profile of the server</p>																			
			<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>DP HW Profile</th><th>Network</th><th>Bonded Interfaces</th><th>Comments</th></tr> </thead> <tbody> <tr> <td style="text-align: center;">SDS HP c-Class Blade V0</td><td style="text-align: center;"> <input type="checkbox"/> IMI <input type="checkbox"/> XMI </td><td style="text-align: center;"> Bond0 (eth01, eth02) </td><td style="background-color: #fce4ec;"> Use when both XMI and IMI Are to be VLAN tagged. </td></tr> <tr> <td style="text-align: center;">SDS HP c-Class Blade V1</td><td style="text-align: center;"> <input type="checkbox"/> IMI <input type="checkbox"/> XMI </td><td style="text-align: center;"> Bond0 (eth01, eth02) bond1 (eth23, eth24) </td><td style="background-color: #d9e1f2;"> Use when XMI enclosure switches are connected to DP blade mezzanine card ports eth23 / eth24. </td></tr> <tr> <td style="text-align: center;">SDS HP c-Class Blade V2</td><td style="text-align: center;"> <input type="checkbox"/> IMI <input type="checkbox"/> XMI </td><td style="text-align: center;"> Bond0 (eth01, eth02) bond1 (eth21, eth22) </td><td style="background-color: #e0f2e0;"> Use when XMI enclosure switches are connected to DP blade mezzanine card ports eth21 / eth22. </td></tr> </tbody> </table>				DP HW Profile	Network	Bonded Interfaces	Comments	SDS HP c-Class Blade V0	<input type="checkbox"/> IMI <input type="checkbox"/> XMI	Bond0 (eth01, eth02)	Use when both XMI and IMI Are to be VLAN tagged.	SDS HP c-Class Blade V1	<input type="checkbox"/> IMI <input type="checkbox"/> XMI	Bond0 (eth01, eth02) bond1 (eth23, eth24)	Use when XMI enclosure switches are connected to DP blade mezzanine card ports eth23 / eth24.	SDS HP c-Class Blade V2	<input type="checkbox"/> IMI <input type="checkbox"/> XMI	Bond0 (eth01, eth02) bond1 (eth21, eth22)	Use when XMI enclosure switches are connected to DP blade mezzanine card ports eth21 / eth22.
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SDS HP c-Class Blade V1	<input type="checkbox"/> IMI <input type="checkbox"/> XMI	Bond0 (eth01, eth02) bond1 (eth23, eth24)	Use when XMI enclosure switches are connected to DP blade mezzanine card ports eth23 / eth24.																			
SDS HP c-Class Blade V2	<input type="checkbox"/> IMI <input type="checkbox"/> XMI	Bond0 (eth01, eth02) bond1 (eth21, eth22)	Use when XMI enclosure switches are connected to DP blade mezzanine card ports eth21 / eth22.																			
31.	<p>Primary SDS VIP: <input type="checkbox"/> 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> <div style="border: 1px solid black; padding: 2px; display: inline-block;"> - Unassigned - SDS_NE </div>	<p>Select the network element [A value is required.]</p> <p>NOTE: <i>After the Network Element Name is selected, the Interfaces fields will be displayed, as seen in Step 33</i></p>																			
32.	<p>Primary SDS VIP: <input type="checkbox"/> Enter the site location.</p> <p>NOTE: <i>Location is an optional field.</i></p>	<p>Location</p> <div style="border: 1px solid black; padding: 2px; display: inline-block;"> bangalore X </div>	<p>Location description [Default = "". R string.]</p>																			

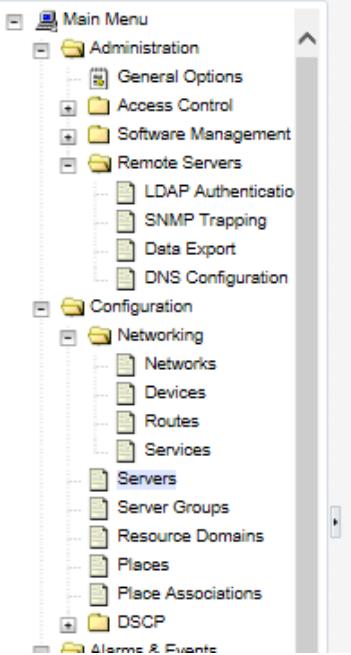
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																				
33.	Primary SDS VIP: 1) Enter the IMI IP address for the DP Server. 2) Set the IMI Interface to "bond0" and "check" the VLAN checkbox.	<table border="1"> <thead> <tr> <th>Network</th><th>IP Address</th><th>Interface</th></tr> </thead> <tbody> <tr> <td>INTERNALXMI (10.75.182.128/25)</td><td>10.75.182.215</td><td>bond0 <input checked="" type="checkbox"/> VLAN (3)</td></tr> <tr> <td>INTERNALIMI (192.168.0.0/24)</td><td>192.168.0.181</td><td>bond0 <input checked="" type="checkbox"/> VLAN (4)</td></tr> </tbody> </table> <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>	Network	IP Address	Interface	INTERNALXMI (10.75.182.128/25)	10.75.182.215	bond0 <input checked="" type="checkbox"/> VLAN (3)	INTERNALIMI (192.168.0.0/24)	192.168.0.181	bond0 <input checked="" type="checkbox"/> VLAN (4)	DP Server	Network	Interface	VLAN Checkbox	DP	IMI	bond0				
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DP Server	Network	Interface	VLAN Checkbox																			
DP	IMI	bond0																				
34.	1) Enter the customer assigned XMI IP address for the DP Server. Layer 3 (No VLAN tagging used for XMI) 2) Set the XMI Interface to "bond1" and "DO NOT check" the VLAN checkbox. - OR - Layer 2 (VLAN tagging used for XMI) 2) Set the XMI Interface to "bond0" and "check" the VLAN checkbox.	<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 style="background-color: red; color: white; padding: 2px;">!!! 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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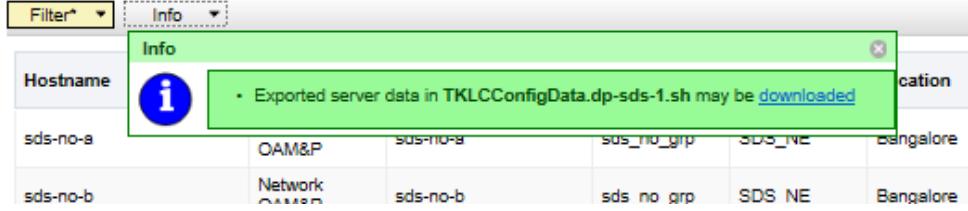
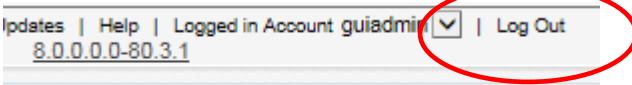
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
35.	<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>	
36.	<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>	
37.	<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>	

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

Step	Procedure	Result																																																	
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39.	<p>Primary SDS VIP: <input type="checkbox"/> 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>	<p>Main Menu: Configuration -> Servers</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-a</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-a	sds_so_a	SDS_NE	Bangalore		dp-sds-1	MP			SDS_NE	Bangalore	
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Procedure 10: Installing the Data Processor blade (All SOAM sites)

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40.	<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> <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 style="text-align: center;">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.	<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.	Configure/Export the each additional DP server to be installed for this SOAM site.	<ul style="list-style-type: none"> Repeat Steps 26 - 41 of this procedure for each additional DP server installed in the SOAM cabinet. 																																																	
43.	<p>Primary SDS VIP:</p> <p>Click the “Logout” link on the SDS server GUI.</p>																																																		
44.	<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 Using keyboard-interactive authentication. Password: <admusr_password></p>																																																	
45.	<p>Primary SDS VIP:</p> <p>Change directory to filemgmt</p>	<p>\$ cd /var/TKLC/db/filemgmt</p>																																																	

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

Step	Procedure	Result
46. <input type="checkbox"/>	Primary SDS VIP: 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.	<pre>\$ ls -ltr TKLCConfigData*.sh</pre> <p>*** TRUNCATED OUTPUT ***</p> <pre>-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>
47. <input type="checkbox"/>	Primary SDS VIP: Use scp to copy the file(s) to the PMAC server.	<pre>\$sudo scp -p <configuration_file-1> <configuration_file-2> admusr@<PMAC_Mgmt_IP>:/tmp/</pre> Password: <admusr_password> <pre>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>
48.	Primary SDS VIP: Logout of the Primary SDS CLI.	<pre>\$ exit</pre>
49. <input type="checkbox"/>	PMAC Server CLI: Use SSH to login to the PMAC Guest VM server as the admusr .	login: admusr Password: <admusr_password>
50.	PMAC Guest VM: Key exchange with DP control IP	<pre>\$ keyexchange admusr@<DP_Control_IP></pre> Example: <pre>[admusr@nassau-enc-pmac-1 ~]\$ keyexchange admusr@192.168.1.22</pre> 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. <pre>[admusr@nassau-enc-pmac-1 ~]\$</pre>

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

Step	Procedure	Result
51. <input type="checkbox"/>	PMAC Guest VM: Copy the server configuration file to the Control IP for the DP. Note: The Control IP for each DP is obtained in Step 15 of this procedure.	\$ scp -p /tmp/<configuration_file> admusr@<DP_Control_IP>:/var/TKLC/db/filemgmt/ Password: <admusr_password> TKLCCfgData.dp-carync-1.sh 100% 1757 1.7KB/s 00:00
52. <input type="checkbox"/>	PMAC Guest VM: Connect to the DP server console from the PMAC Server Console.	\$ ssh <DP_Control_IP> Password: <admusr_password>
53. <input type="checkbox"/>	DP Server: 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.	Example: TKLCCfgData.<.server_hostname>.sh → will translate to → TKLCCfgData.sh \$ sudo cp -p /var/TKLC/db/filemgmt/TKLCCfgData.dp-carync-1.sh /var/tmp/TKLCCfgData.sh NOTE: The server will poll the /var/tmp directory for the presence of the configuration file and automatically execute it when found.
54. <input type="checkbox"/>	DP Server: After the script completes, a broadcast message will be sent to the terminal.	*** NO OUTPUT FOR ≈ 3-20 MINUTES *** 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. <ENTER>
55.	DP Server: Verify that the desired Time Zone is currently in use.	\$ date Mon Aug 10 19:34:51 UTC 2015
56. <input type="checkbox"/>	DP Server: Initiate a reboot of the DP.	\$ sudo init 6

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

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

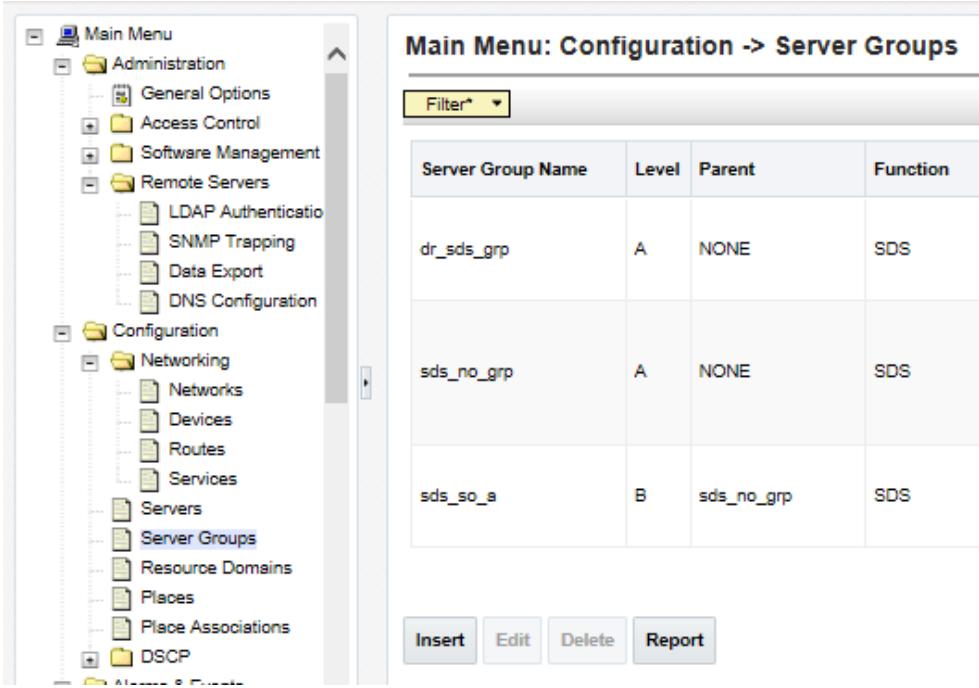
Procedure 10: Installing the Data Processor blade (All SOAM sites)

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

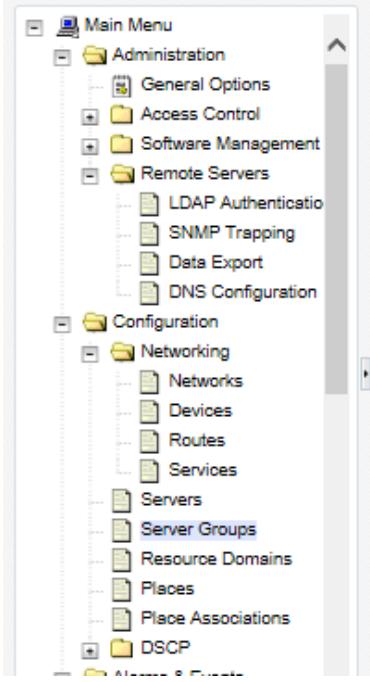
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
64.	<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:</p> <p>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																
65. <input type="checkbox"/>	DP Server: Exit from the command line to return the server console to the login prompt.	\$ exit Connection to 192.168.1.199 closed.																
66. <input type="checkbox"/>	Apply the configuration file for each additional DP server installed at the SOAM site.	<ul style="list-style-type: none"> Repeat Steps 51 - 65 of this procedure for each subtending DP server installed in the same SOAM enclosure. 																
67. <input type="checkbox"/>	PMAC Guest VM: Exit from the PMAC server.	\$ exit																
68. <input type="checkbox"/>	Primary SDS VIP: Select... <u>Main Menu</u> → Configuration → Server Groups ...as shown on the right.	 <p>The screenshot shows the SDS configuration interface. On the left is a tree view of the Main Menu, with the 'Server Groups' option under 'Configuration' highlighted. On the right is a table titled 'Main Menu: Configuration -> Server Groups' with the following data:</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> <p>At the bottom of the interface are buttons for 'Insert', 'Edit', 'Delete', and 'Report'.</p>	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
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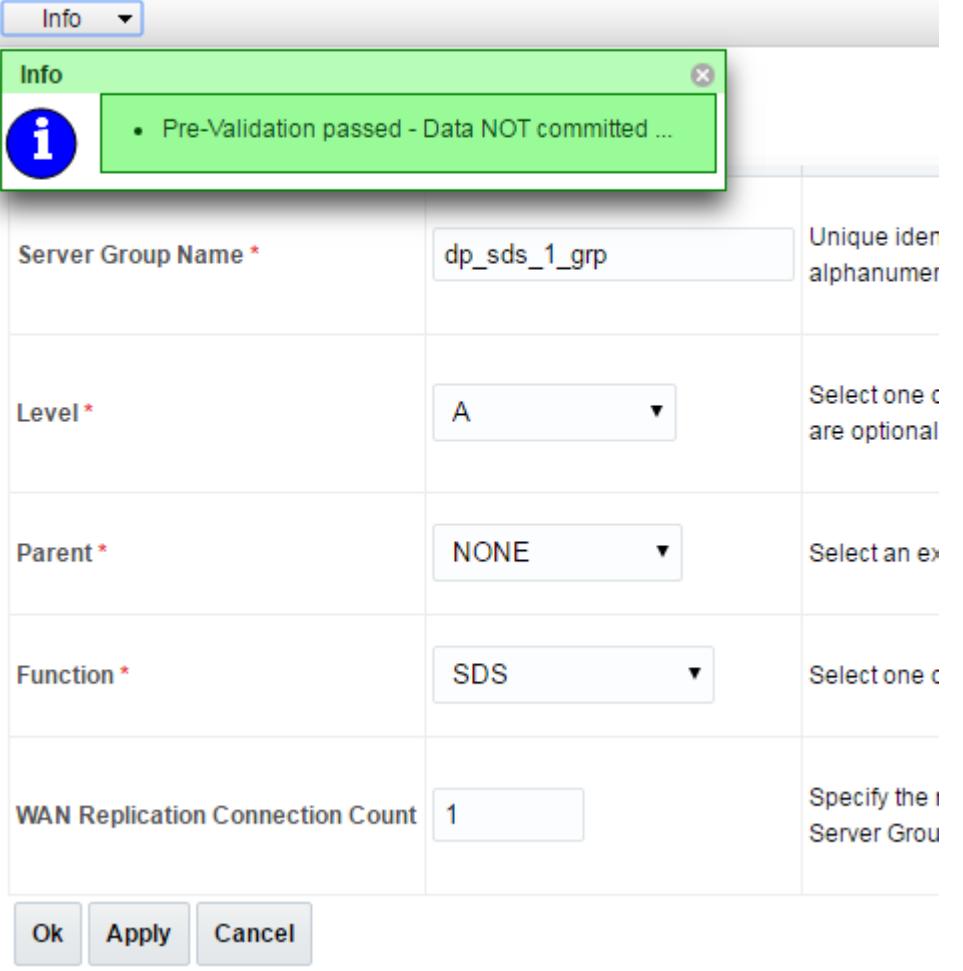
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																
69.	<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>Main Menu: Configuration -> Server Groups</p> <p>Filter* <input type="button" value="▼"/></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_s</td> <td>B</td> <td>sds_no_grp</td> <td>SDS</td> </tr> </tbody> </table> <p><input type="button" value="Insert"/> <input type="button" value="Edit"/> <input type="button" value="Delete"/> <input type="button" value="Report"/></p>	Server Group Name	Level	Parent	Function	dr_sds_grp	A	NONE	SDS	sds_no_grp	A	NONE	SDS	sds_so_s	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_s	B	sds_no_grp	SDS															
70.	<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>Main Menu: Configuration -> Server Groups [Insert]</p> <p>Thu Nov 17 10:25:10 2011</p> <p>Info* <input type="button" value="▼"/></p> <p>Adding new server group</p> <table border="1"> <tr> <td>Server Group Name *</td> <td>dp_sds_1_grp</td> <td>Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.] [A value is required.]</td> </tr> <tr> <td>Level *</td> <td>A</td> <td>Select one of the Levels supported by the system. [Level A groups contain NOAMP and Query servers. Level B groups are optional and contain SOAM servers. Level C groups contain MP servers.] [A value is required.]</td> </tr> <tr> <td>Parent *</td> <td>NONE</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 required.]</td> </tr> <tr> <td>WAN Replication Connection Count</td> <td>1</td> <td>Specify the number of TCP connections that will be used by replication over any WAN connection associated with this Server Group. [Default = 1. Range = An Integer between 1 and 8.]</td> </tr> </table> <p><input type="button" value="Ok"/> <input type="button" value="Apply"/> <input type="button" value="Cancel"/></p>	Server Group Name *	dp_sds_1_grp	Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.] [A value is required.]	Level *	A	Select one of the Levels supported by the system. [Level A groups contain NOAMP and Query servers. Level B groups are optional and contain SOAM servers. Level C groups contain MP servers.] [A value is required.]	Parent *	NONE	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 required.]	WAN Replication Connection Count	1	Specify the number of TCP connections that will be used by replication over any WAN connection associated with this Server Group. [Default = 1. Range = An Integer between 1 and 8.]	
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71.	<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 Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.] [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 Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.] [A value is required.]										
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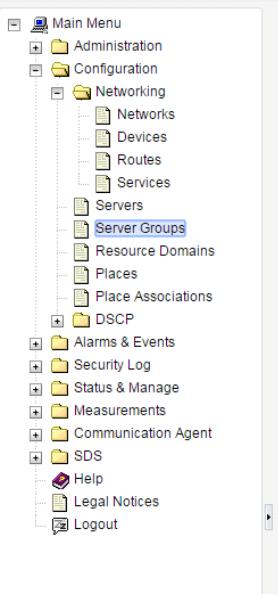
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result	
72. <input type="checkbox"/>	Primary SDS VIP: Select “C” on the “Level” pull-down menu.	Level * <div style="border: 1px solid black; padding: 2px; width: fit-content; margin-left: auto; margin-right: auto;"> - Select Level - A B C </div>	<i>Not Start with 8 digit(s) [A value is required.]</i> Select one of the Levels supported by servers. [A value is required.]
73. <input type="checkbox"/>	Primary SDS VIP: Select System OAM group on the “Parent” pull-down menu.	Parent * <div style="border: 1px solid black; padding: 2px; width: fit-content; margin-left: auto; margin-right: auto;"> - Select Parent- NONE dr_sds_grp sds_so_a </div>	<i>-----</i> Select an existing Server Group or NONE [A value is required.]
74. <input type="checkbox"/>	Primary SDS VIP: Select “SDS” on the “Function” pull-down menu.	Function * <div style="border: 1px solid black; padding: 2px; width: fit-content; margin-left: auto; margin-right: auto;"> - Select Function - NONE SDS </div>	<i>-----</i> Select one of the Functions supported by servers. [A value is required.]

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

Step	Procedure	Result
75.	<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>Server Group Name * <input type="text" value="dp_sds_1_grp"/> Unique identifier alphanumeric</p> <p>Level * <input type="text" value="A"/> Select one or more levels. Some are optional</p> <p>Parent * <input type="text" value="NONE"/> Select an existing parent</p> <p>Function * <input type="text" value="SDS"/> Select one or more functions</p> <p>WAN Replication Connection Count <input type="text" value="1"/> Specify the number of connections for this Server Group</p> <p>Ok Apply Cancel</p>

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

Step	Procedure	Result																				
76. <input type="checkbox"/>	Primary SDS VIP: The user should be presented with a banner information message stating “Data committed”.	<p>Main Menu: Configuration -> Server Groups [Insert]</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																				
77. <input type="checkbox"/>	Primary SDS VIP: 1) Select... <u>Main Menu</u> → Configuration → Server Groups ...as shown on the right 2) The user will be presented with the “Configuration → Server Groups” screen as shown on the right.	 <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Func</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	Func	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
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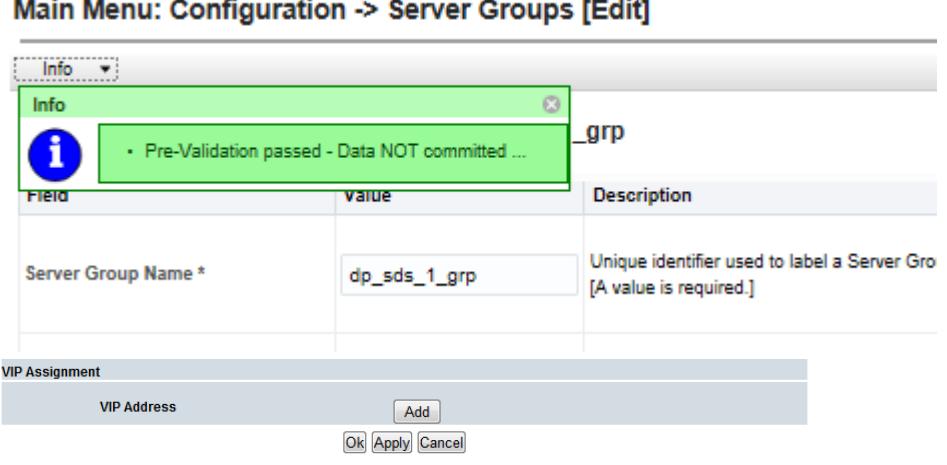
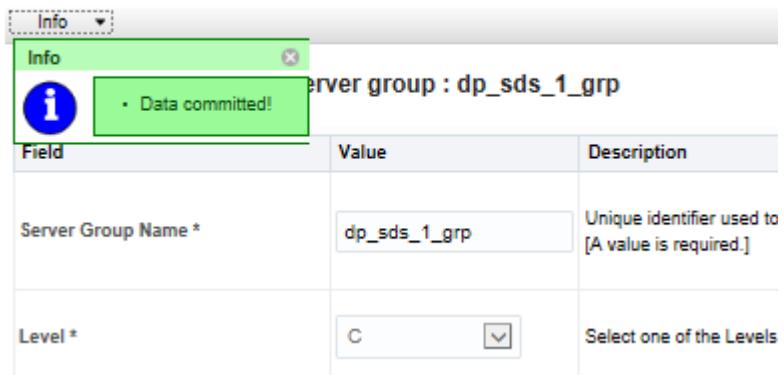
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																														
78.	<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 Element 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 Element 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 Element 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 Element Server dr-sds-no-a	sds_no_grp	A	NONE	SDS	1	Network Element Server qs-sds-1 sds-no-a sds-no-b	sds_so_a	B	sds_no_grp	SDS	1	Network Element Server sds-so-a
Server Group Name	Level	Parent	Function	Connection Count	Servers																											
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dr_sds_grp	A	NONE	SDS	1	Network Element Server dr-sds-no-a																											
sds_no_grp	A	NONE	SDS	1	Network Element Server qs-sds-1 sds-no-a sds-no-b																											
sds_so_a	B	sds_no_grp	SDS	1	Network Element Server sds-so-a																											

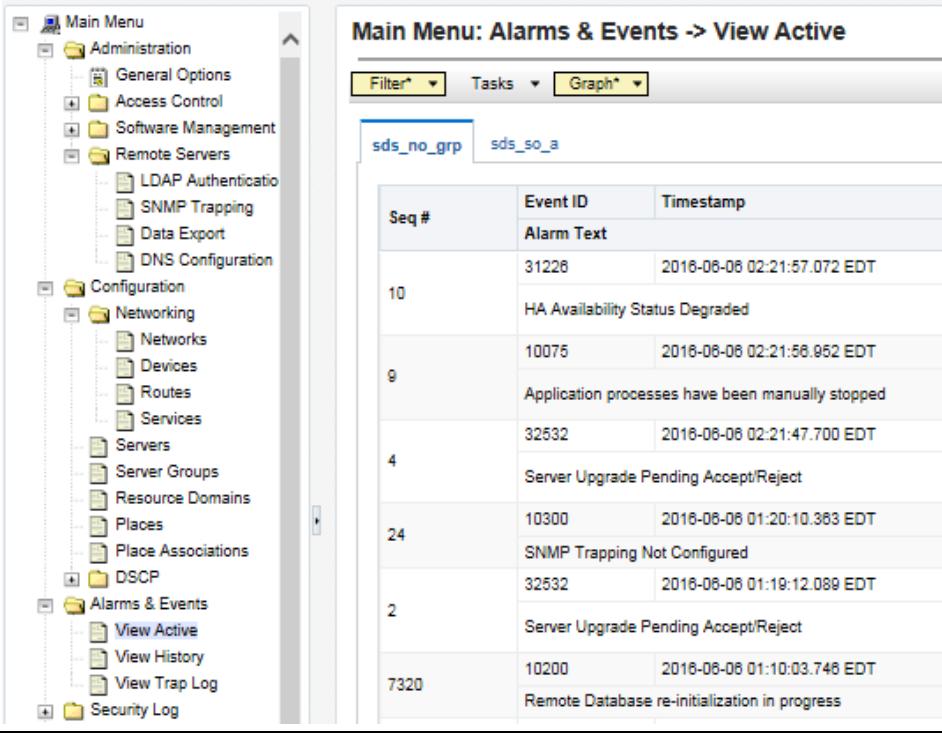
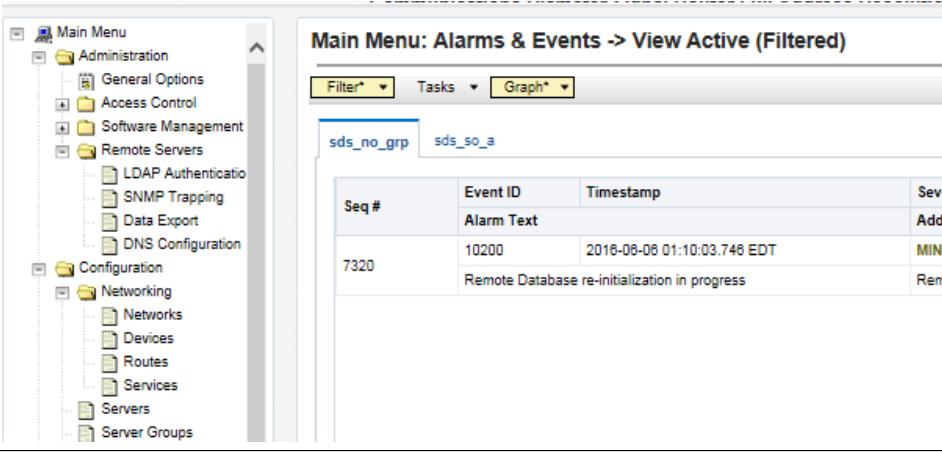
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																																				
79.	<p>Primary SDS VIP: <input type="checkbox"/> The user will be presented with the “Configuration → Server Groups [Edit]” screen as shown on the right</p>	<p>Main Menu: Configuration → Server Groups [Edit]</p> <p>Modifying attributes of server group : dp_sds_1_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>dp_sds_1_grp</td><td>Unique identifier used to label : [A value is required.]</td></tr> <tr> <td>Level *</td><td>C</td><td>Select one of the Levels suppo</td></tr> <tr> <td>Parent *</td><td>sds_so_a</td><td>Select an existing Server Grou</td></tr> <tr> <td>Function *</td><td>SDS</td><td>Select one of the Functions su</td></tr> <tr> <td>WAN Replication Connection Count</td><td>1</td><td>Specify the number of TCP cor</td></tr> <tr> <td colspan="2">SDS_NE <input type="checkbox"/> Prefer Network Element as spare</td><td></td></tr> <tr> <td>Server</td><td>SG Inclusion</td><td>Preferred HA Role</td></tr> <tr> <td>dp-sds-1</td><td><input type="checkbox"/> Include in SG</td><td><input type="checkbox"/> Prefer server as spare</td></tr> <tr> <td colspan="2">VIP Assignment</td><td></td></tr> <tr> <td colspan="2">VIP Address</td><td>Add</td></tr> <tr> <td colspan="3">Ok Apply Cancel</td></tr> </tbody> </table>	Field	Value	Description	Server Group Name *	dp_sds_1_grp	Unique identifier used to label : [A value is required.]	Level *	C	Select one of the Levels suppo	Parent *	sds_so_a	Select an existing Server Grou	Function *	SDS	Select one of the Functions su	WAN Replication Connection Count	1	Specify the number of TCP cor	SDS_NE <input type="checkbox"/> Prefer Network Element as spare			Server	SG Inclusion	Preferred HA Role	dp-sds-1	<input type="checkbox"/> Include in SG	<input type="checkbox"/> Prefer server as spare	VIP Assignment			VIP Address		Add	Ok Apply Cancel		
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Ok Apply Cancel																																						
80.	<p>Primary SDS VIP: <input type="checkbox"/> Select the “DP” server from the list of “Servers” by clicking the check box next 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>dp-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	dp-sds-1	<input checked="" type="checkbox"/> Include in SG	<input type="checkbox"/> Prefer server as spare																														
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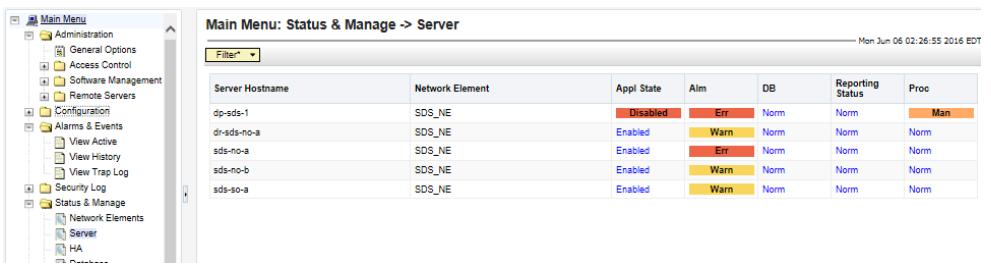
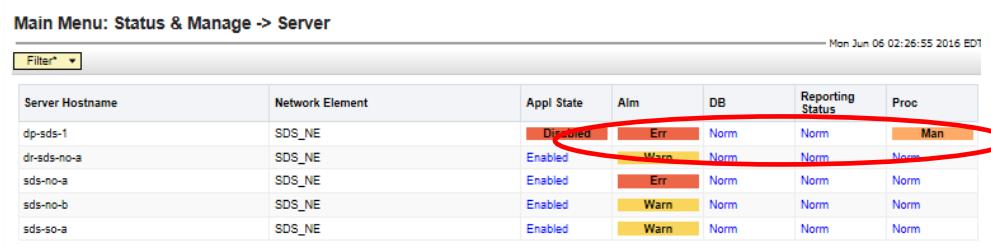
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
81.	<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>	
82.	<p>Primary SDS VIP:</p> <p>The user should be presented with a banner information message stating “Data committed”.</p>	
83.	<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 subtending DP server installed in the same SOAM enclosure, using a unique group for each DP.

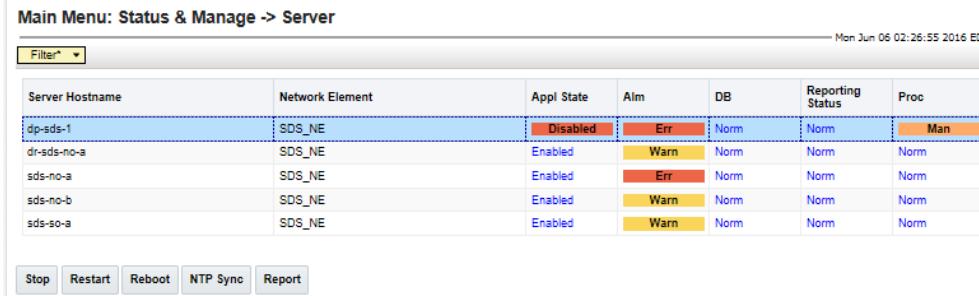
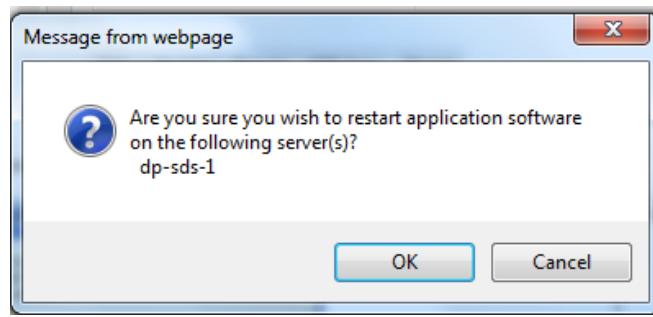
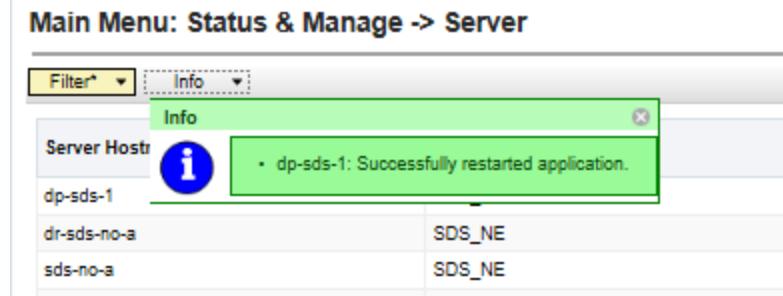
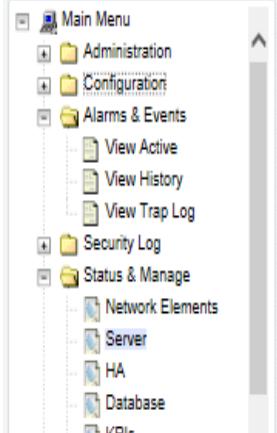
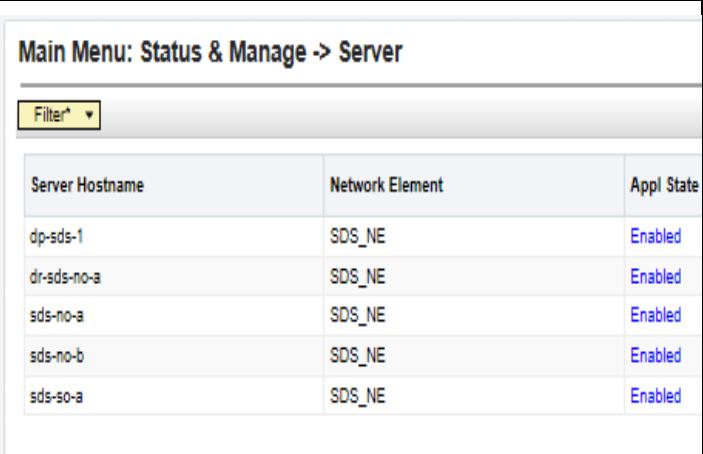
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																														
84.	<p>Primary SDS VIP: Select...</p> <p>Main Menu → Alarms & Events → View Active</p> <p>...as shown on the right.</p>	 <p>Main Menu: Alarms & Events -> View Active</p> <p>Filter* Tasks Graph*</p> <p>sds_no_grp sds_so_a</p> <table border="1"> <thead> <tr> <th>Seq #</th> <th>Event ID</th> <th>Timestamp</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>31226</td> <td>2016-06-06 02:21:57.072 EDT</td> </tr> <tr> <td>9</td> <td>HA Availability Status Degraded</td> <td>2016-06-06 02:21:58.952 EDT</td> </tr> <tr> <td>4</td> <td>10075</td> <td>Application processes have been manually stopped</td> </tr> <tr> <td>24</td> <td>32532</td> <td>2016-06-06 02:21:47.700 EDT</td> </tr> <tr> <td>2</td> <td>10300</td> <td>Server Upgrade Pending Accept/Reject</td> </tr> <tr> <td>7320</td> <td>32532</td> <td>SNMP Trapping Not Configured</td> </tr> <tr> <td>2</td> <td>10200</td> <td>2016-06-06 01:19:12.089 EDT</td> </tr> <tr> <td>7320</td> <td>10200</td> <td>Server Upgrade Pending Accept/Reject</td> </tr> <tr> <td></td> <td>7320</td> <td>Remote Database re-initialization in progress</td> </tr> </tbody> </table>	Seq #	Event ID	Timestamp	10	31226	2016-06-06 02:21:57.072 EDT	9	HA Availability Status Degraded	2016-06-06 02:21:58.952 EDT	4	10075	Application processes have been manually stopped	24	32532	2016-06-06 02:21:47.700 EDT	2	10300	Server Upgrade Pending Accept/Reject	7320	32532	SNMP Trapping Not Configured	2	10200	2016-06-06 01:19:12.089 EDT	7320	10200	Server Upgrade Pending Accept/Reject		7320	Remote Database re-initialization in progress
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85.	<p>Primary SDS VIP: Verify that Event ID 10200 (Remote Database re-initialization in progress) alarms are present with the DP Server hostnames in the “Instance” field..</p>	 <p>Main Menu: Alarms & Events -> View Active (Filtered)</p> <p>Filter* Tasks Graph*</p> <p>sds_no_grp sds_so_a</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>2016-06-06 01:10:03.746 EDT</td> <td>MINOR</td> </tr> <tr> <td></td> <td></td> <td>Remote Database re-initialization in progress</td> <td>REMOTE</td> </tr> </tbody> </table>	Seq #	Event ID	Timestamp	Severity	7320	10200	2016-06-06 01:10:03.746 EDT	MINOR			Remote Database re-initialization in progress	REMOTE																		
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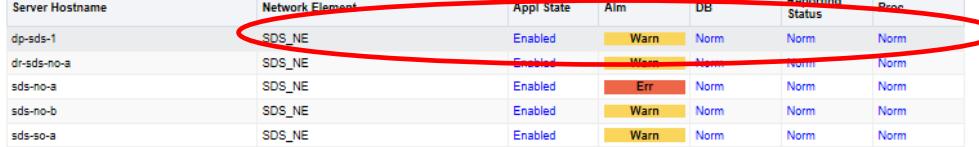
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																																										
86.	<p>Primary SDS VIP: <input type="checkbox"/> 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> <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>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>	Server Hostname	Network Element	Appl State	Alm	DB	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
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87.	<p>Primary SDS VIP: <input type="checkbox"/> Verify that the “DB & Reporting” status columns all show “Norm” for the DP at this point. The “Proc” column should show “Man”.</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>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>	Server Hostname	Network Element	Appl State	Alm	DB	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
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Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
88.	<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>NOTE: The user may need to use the vertical scroll-bar in order to make the “Restart” dialogue button visible.</p>	  
89.	<p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu → Status & Manage → Server</p> <p>...as shown on the right.</p>	 

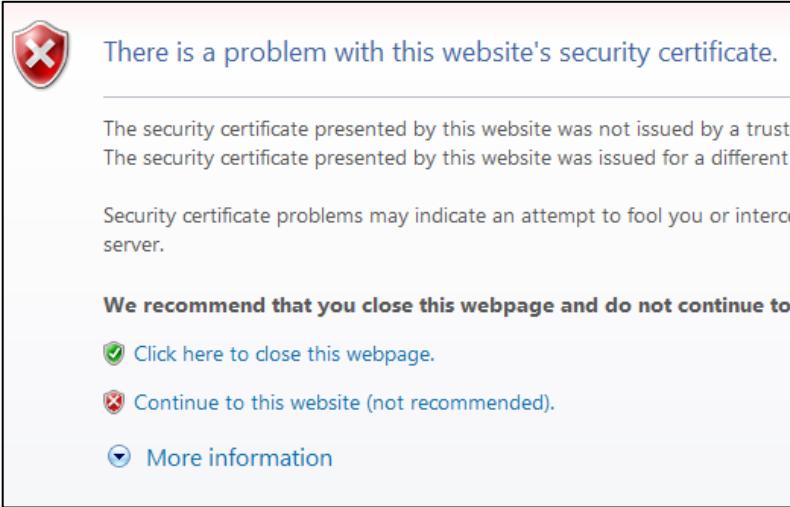
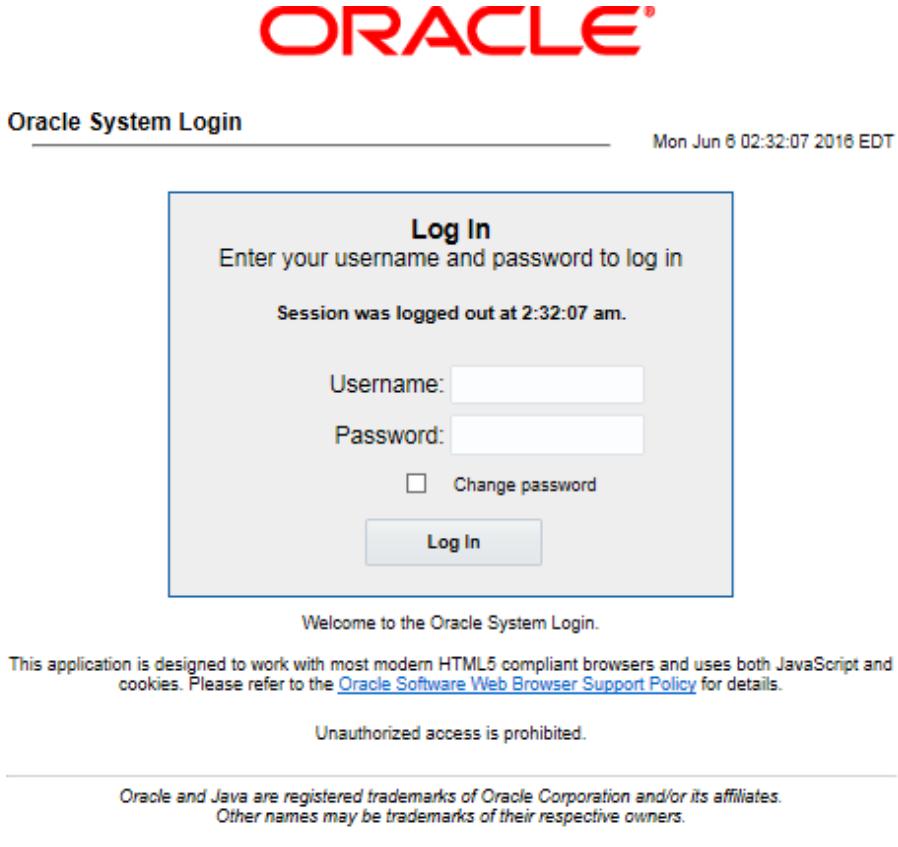
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																																										
90.	<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> <p>Mon Jun 06 02:30:25 2016 El</p> <p>Filter* ▾</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
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91.	Repeat this procedure for each additional DP Server.	<ul style="list-style-type: none"> Repeat Steps 86 - 90 of this procedure for each additional DP server installed in the SOAM cabinet. 																																										
THIS PROCEDURE HAS BEEN COMPLETED																																												

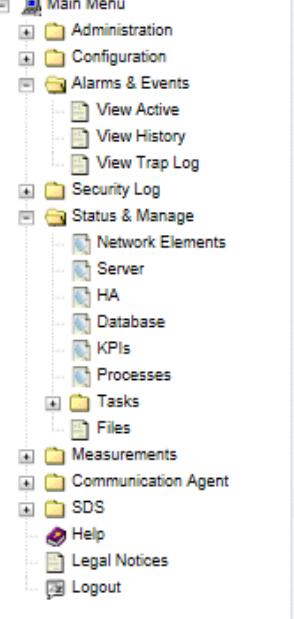
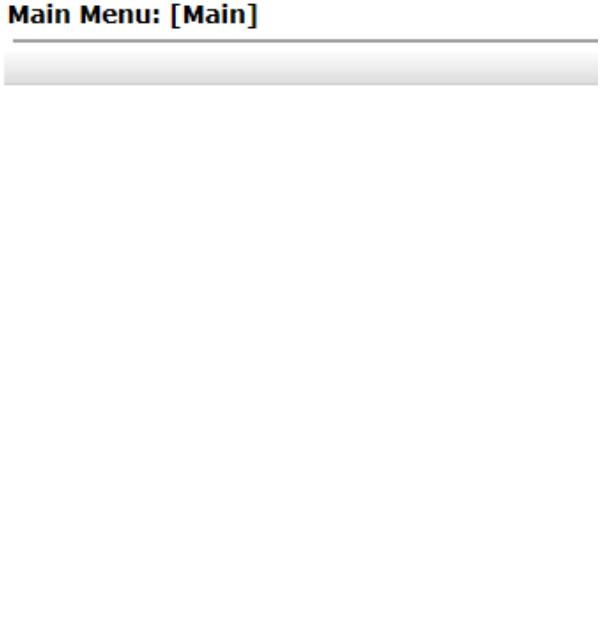
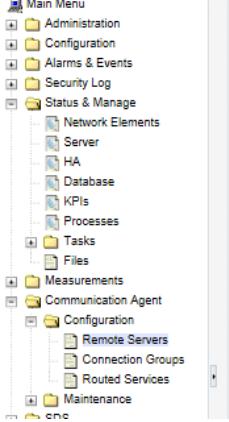
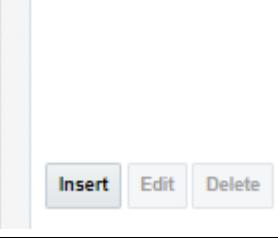
5.10 Configuring ComAgent

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
1.	<p>Primary SDS VIP: <input type="checkbox"/> Launch an approved web browser and connect to the XML Virtual IP Address (VIP) of the SDS</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>	
2.	<p>Primary SDS VIP: <input type="checkbox"/> 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>	

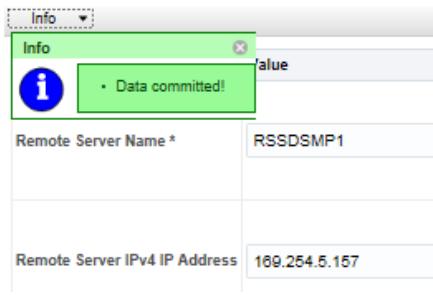
Procedure 11: Configuring comAgent (All SOAM sites)

3.	<p>Primary SDS VIP: <input type="checkbox"/> The user should be presented the SDS Main Menu as shown on the right.</p>		<p>Main Menu: [Main]</p> 						
4.	<p>Primary SDS VIP: <input type="checkbox"/> Select... Main Menu →Communication Agent →Configuration →Remote Servers ...as shown on the right.</p>		<p>Main Menu: Communication Agent > Configuration > Remote Servers</p> 						
5.	<p>Primary SDS VIP: <input type="checkbox"/> Select the “Insert” dialogue button</p>								
6.	<p>Primary SDS VIP: <input type="checkbox"/> 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.]
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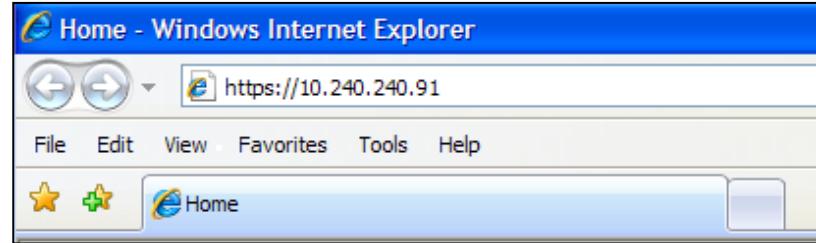
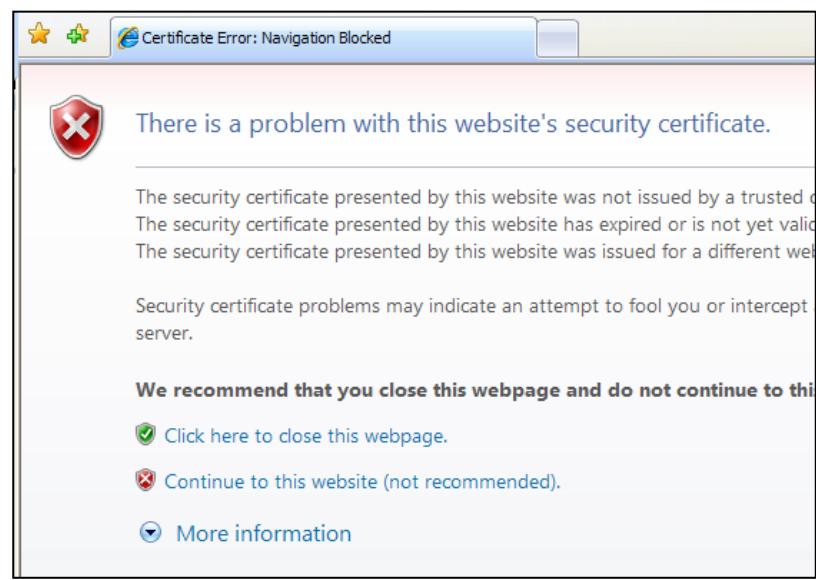
Procedure 11: Configuring comAgent (All SOAM sites)

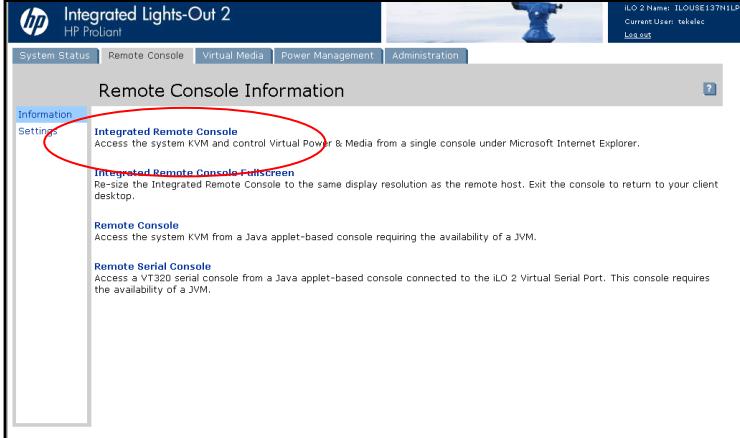
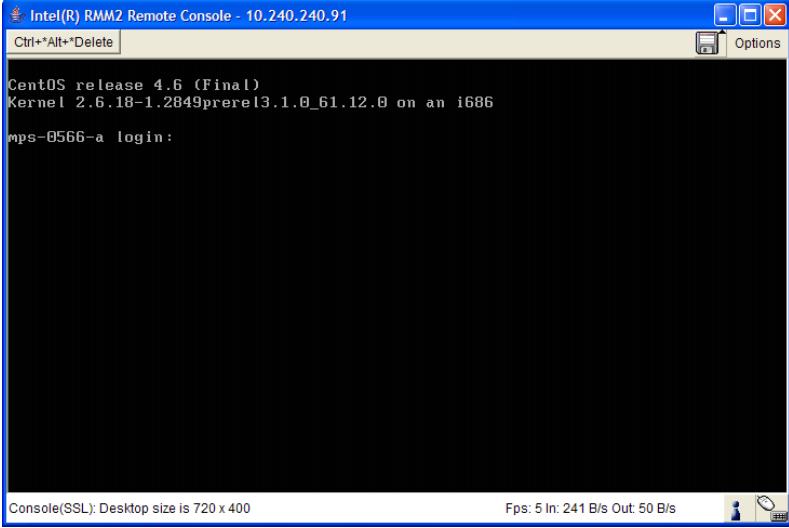
7.	<p>Primary SDS VIP: Enter the “Remote Server IMI IP Address” and “IP Address Preference”.</p>	<p>Remote Server IPv4 IP Address: 169.254.5.157</p> <p>IP Address Preference: ComAgent Network Preference</p> <p>NOTE: This should be the IMI IP address of the MP blade.</p>	<p>This is the IPv4 IP address 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>
8.	<p>Primary SDS VIP: Select “Client” for the Remote Server Mode from the pull-down menu.</p>	<p>Remote Server Mode *: -- Select -- Client Server</p>	<p>Identifies the mode in which the Remote Server [A value is required.]</p>
9.	<p>Primary SDS VIP: Select the Local Server Group for the SDS Data Processor server group</p>	<p>Available Local Server Groups</p> <p>MultiApp3_DP1 MultiApp3_DP2</p> <p>Assigned Local Server Groups *</p> <p>Add Remove</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>
10.	<p>Primary SDS VIP: Click the “Apply” dialogue button</p>	<p>Available Local Server Groups</p> <p>Assigned Local Server Groups *</p> <p>Add Remove</p> <p>Assigned Local Server Groups</p> <p>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)

11.	<p>Primary SDS VIP: 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>Info</p> <p>• Data committed!</p> <p>Remote Server Name * RSSDSMP1</p> <p>Remote Server IPv4 IP Address 169.254.5.157</p> <p>Description</p> <p>Unique identifier used to label a Remote Server. [Default: n/a; Range: A 32-character string. Valid ch alphanumeric.] [A value is required.]</p> <p>This is the IPv4 IP address of the Remote Server. If Default: n/a; Range: A valid IPv4 IP address.</p>
12.	<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
1. <input type="checkbox"/>	<p>Launch an approved web browser and connect to the iLO interface</p> <p>NOTE: Always use <code>https://</code> for iLO GUI access.</p>	
2. <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>	
3. <input type="checkbox"/>	Login to the iLO console as “Administrator”	

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

THIS PROCEDURE HAS BEEN COMPLETED

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.

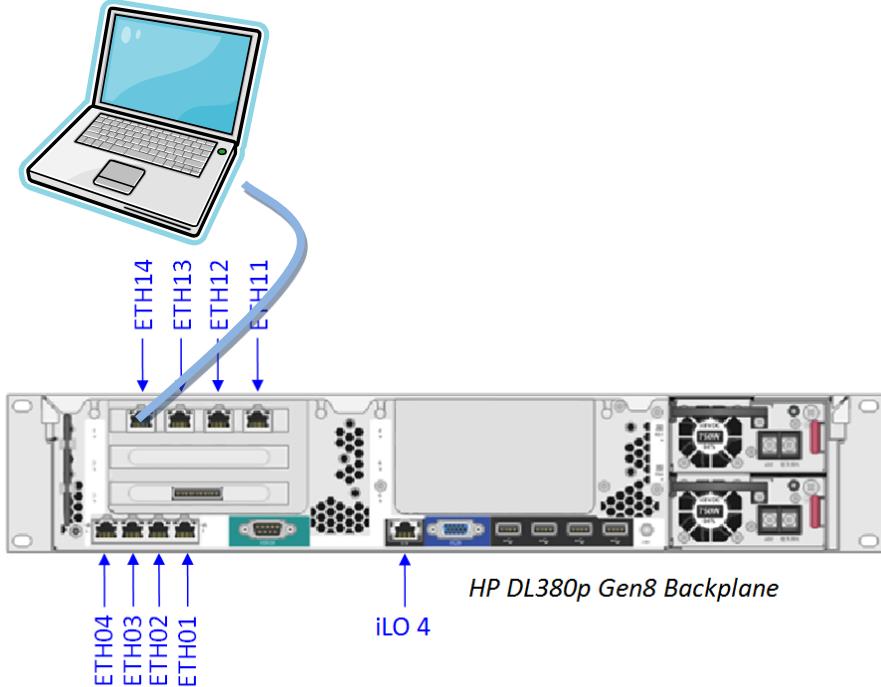
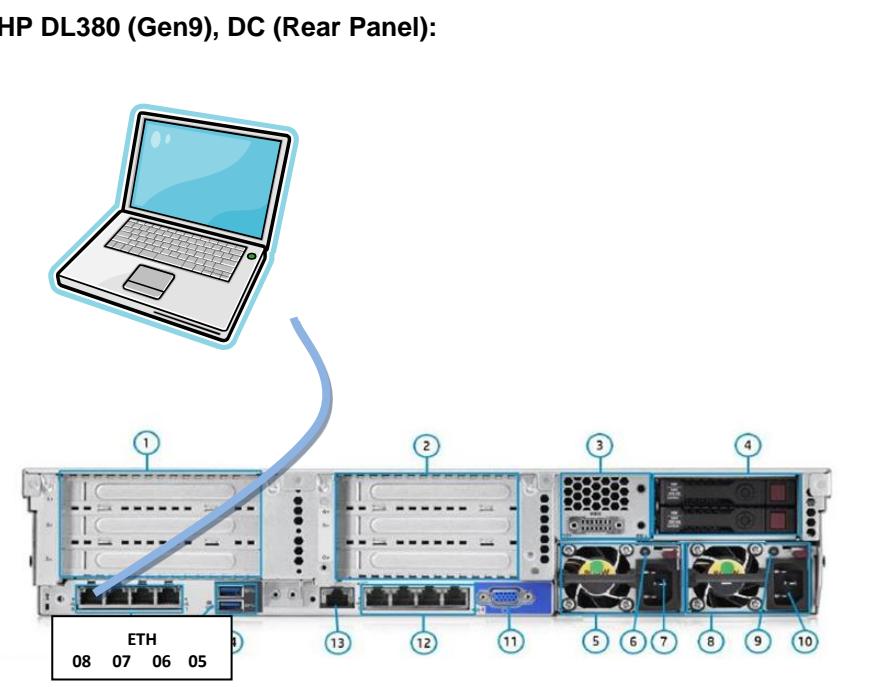
Step	In this procedure you will configure a temporary external IP Address for SDS Server A for the 1 st SDS site. The user will use this IP Address in a web browser to access the GUI to configure the first SDS server.	
1. <input type="checkbox"/>	Log onto the SDS NOAM Server A ILO as indicated in 0 NOTE: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

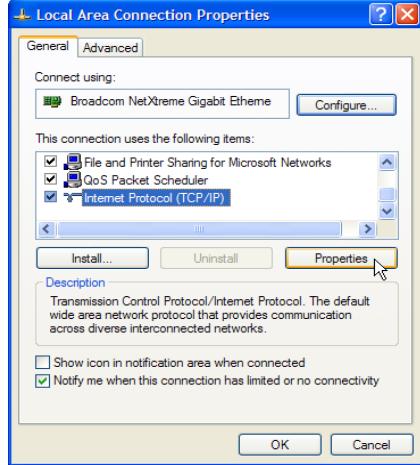
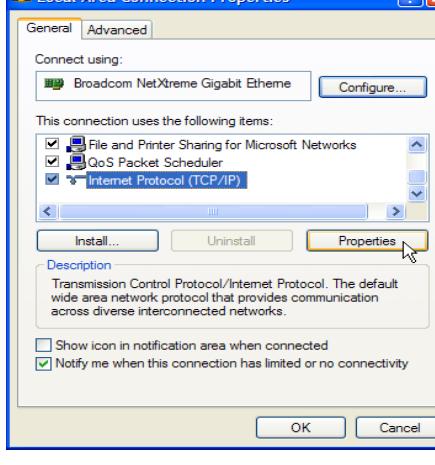
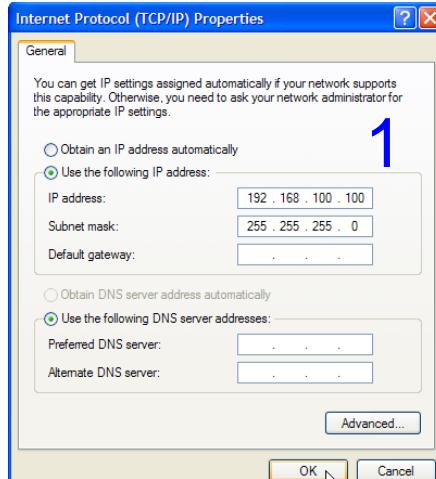
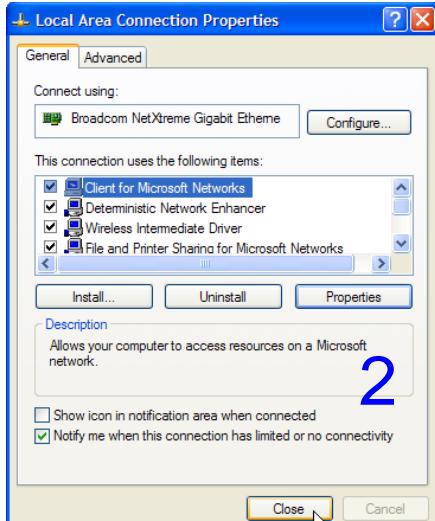
5. <input type="checkbox"/>	Wait a few minutes and then ping the default gateway to ensure connectivity.	\$ ping <XMI_IP_Address_for_default_gateway>
6. <input type="checkbox"/>	Log off the ILO	\$ exit
7. <input type="checkbox"/>	Important NOTE: This interface must be un-configured	NOTE: If this method 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> ”.
THIS PROCEDURE HAS BEEN COMPLETED		

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"/>	1) Access the command prompt. 2) Log into the SDS NOAM-A server as the "admusr" user.	hostname1260476221 login: admusr Password: <admusr_password>
3. <input type="checkbox"/>	This step, DL380 Gen8 only! Configure static IP 192.168.100.11 on the eth14 port of the SDS NOAM-A server.	\$ sudo netAdm set --device=eth14 --address=192.168.100.11 --netmask=255.255.255.0 --onboot=yes
4. <input type="checkbox"/>	This step, DL380 Gen9 only! Configure static IP 192.168.100.11 on the eth08 port of the SDS NOAM-A server.	\$ sudo netAdm set --device=eth08 --address=192.168.100.11 --netmask=255.255.255.0 --onboot=yes

<input type="checkbox"/> 5.	<p>Execute this step for HP DL380 Gen8:</p> <p>1) Plug in one end of the Ethernet cable (straight-thru) into the back of SDS NOAM-A server ETH14 (top left port).</p> <p>2) Plug the other end of the Ethernet cable into the laptop's Ethernet jack.</p> <p>Execute this step For HP DL380 Gen9:</p> <p>1) Plug in one end of the Ethernet cable (straight-thru) into the back of SDS NOAM-A server ETH08 (bottom left port).</p> <p>2) Plug the other end of the Ethernet cable into the laptop's Ethernet jack.</p>	 <p>HP DL380 (Gen9), DC (Rear Panel):</p> 
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<p>6.</p> <input type="checkbox"/> <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> <input type="checkbox"/> <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>Local Area Connection Properties</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.

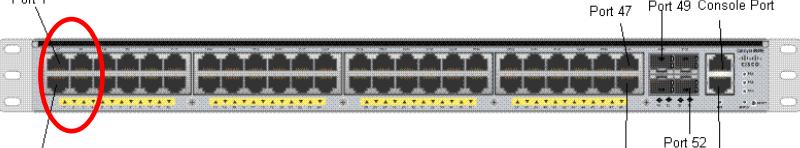
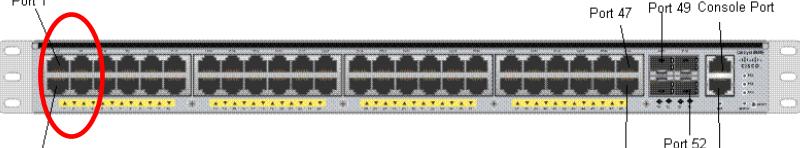
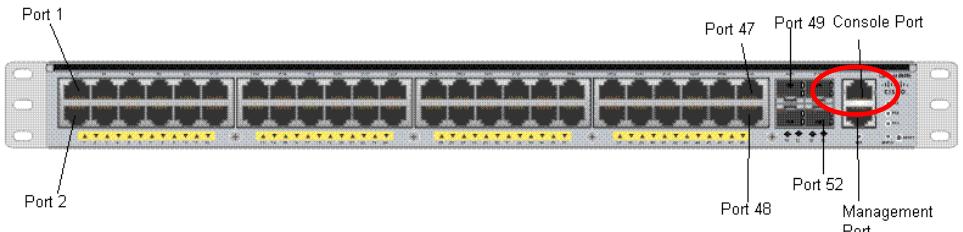
Appendix D. CONFIGURE CISCO 4948E-F AGGREGATION SWITCHES

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	OPEN	
40	FILLER PANEL	
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	SERVER B - SDS NOAM (HP DL380 Gen8/Gen9)	
6		
5	SERVER A - SDS NOAM (HP DL380 Gen8/Gen9)	
4		
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
1.	<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>	<p>1B switch1B (Top)</p>  <p>1A switch1A (Bottom)</p>  <p>Figure 11 - Cisco 4948E-F Switch ISL Connections</p>
2.	<p>DL380 Gen8 only : Verify that SERVER A has the Quad-Serial card interface ports connected to the Console Port each switch port</p>	 <p>Figure 12 - Cisco 4948E-F Switch (Console Port)</p>

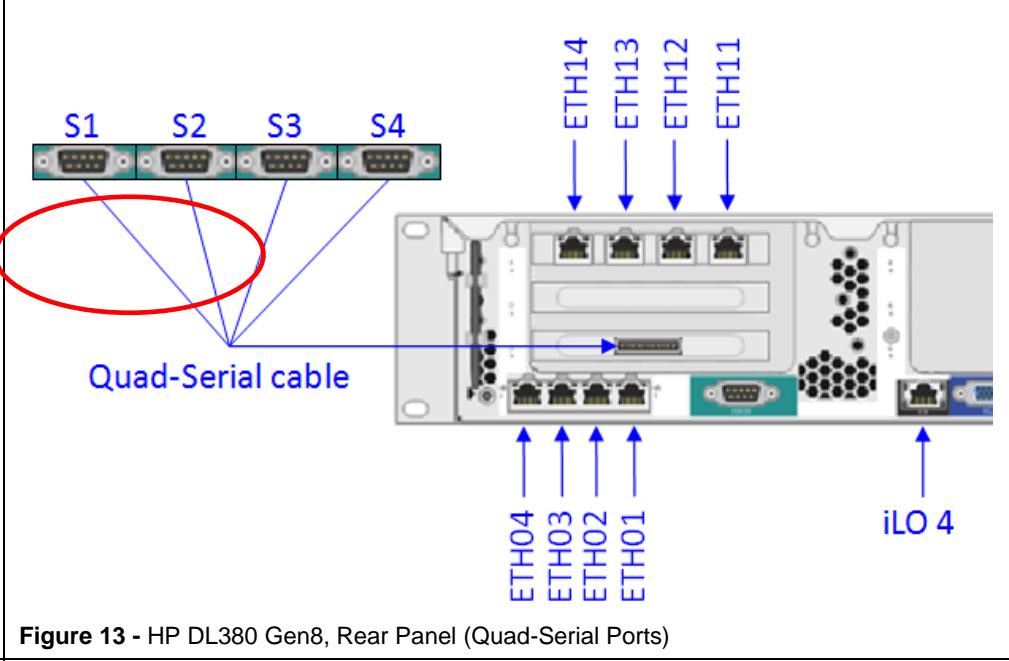
Step	Procedure	Result
<input type="checkbox"/>	<p>1) Verify that the switch1A, Console Port is CONNECTED to SERVER A, Quad-Serial Port S1 using Cable 830-1229-xx.</p> <p>2) Verify that the switch1B, Console Port is CONNECTED to SERVER A, Quad-Serial Port S2 using Cable 830-1229-xx.</p>	
<input type="checkbox"/>	<p>This step, DL380 Gen8 only!</p> <p>1) Verify that switch1A, Port 5 is CONNECTED to SERVER A, ETH01.</p> <p>2) Verify that</p>	

Figure 13 - HP DL380 Gen8, Rear Panel (Quad-Serial Ports)

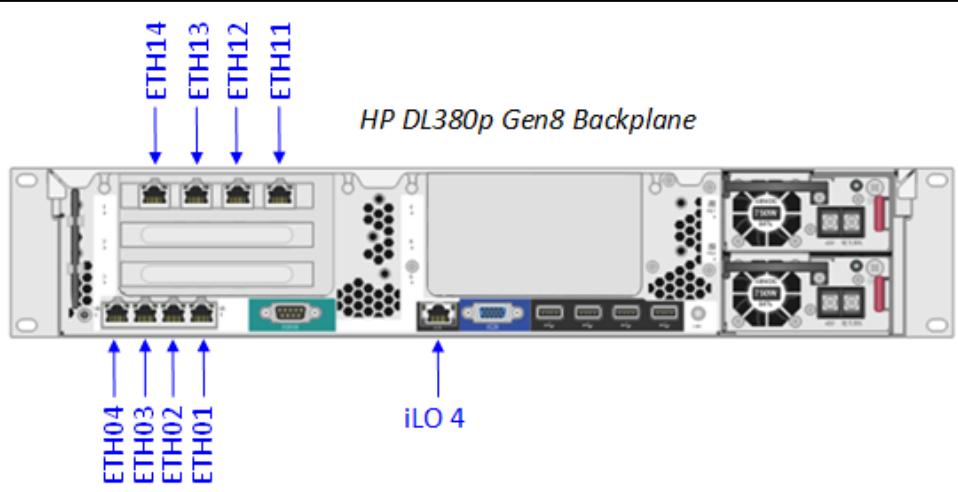
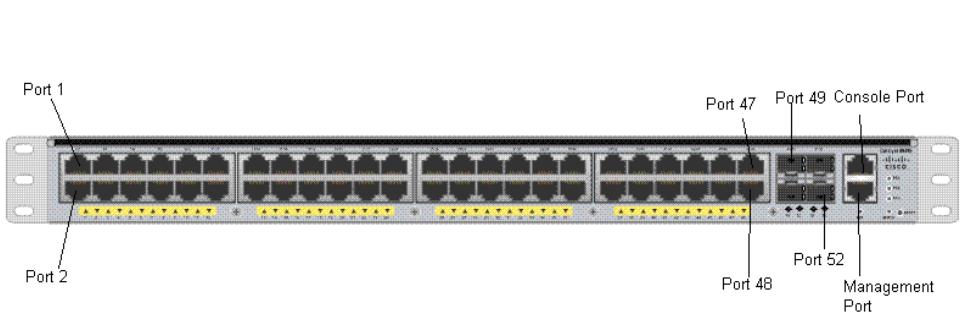
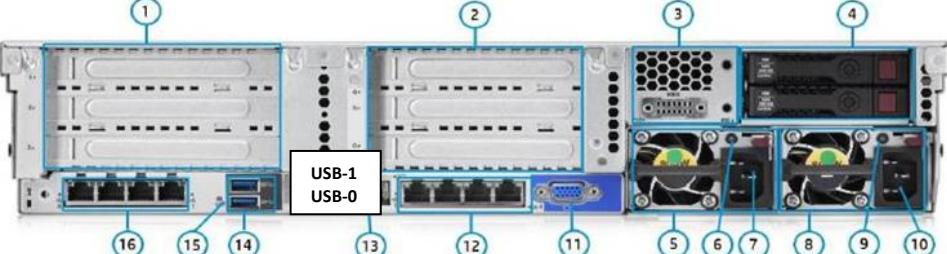
Step	Procedure	Result
<input type="checkbox"/>	switch1B, Port 5 is CONNECTED to SERVER A, ETH11.	
<input type="checkbox"/>	3) Verify that switch1A, Port 6 is CONNECTED to SERVER B, ETH01.	 <p>HP DL380p Gen8 Backplane</p>
<input type="checkbox"/>	4) Verify that switch1B, Port 6 is CONNECTED to SERVER B, ETH11.	
<input type="checkbox"/>	5) Verify that switch1A, Port 7 is CONNECTED to SERVER C, ETH01.	
<input type="checkbox"/>	6) Verify that switch1B, Port 7 is CONNECTED to SERVER C, ETH11.	

Figure 5 - HP DL380 Gen8, Rear Panel (Ethernet)

Step	Procedure	Result
4.	<p>This step, DL380 Gen9 only!</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
5.	<p>This step, DL380 Gen9 only!</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>HP DL380 (Gen9), DC (Rear Panel)</p>

Figure 16 - HP DL380 (Gen9), DC (Rear Panel)

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 >	<i>Primary SDS: 169.254.1.11 DR SDS: 169.254.1.14</i>
< SERVER B_mgmtVLAN_ip_address>	<i>Primary SDS: 169.254.1.12 DR SDS: 169.254.1.15</i>
<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
3.	<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>
4.	<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>
5.	<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
6.	SERVER A: <input type="checkbox"/> For Gen8: Setup conserver serial console access for switch1A	<pre>\$ sudo conserverSetup -i -s <SERVER_A_mgmtVLAN_ip_address></pre> <p>Example:</p> <pre>\$ sudo conserverSetup -i -s 169.254.1.11</pre> <p>Enter your platcfg username, followed by [ENTER]:platcfg</p> <p>Enter your platcfg password, followed by [ENTER]:</p> <p>Target address is local to this host. Running conserverSetup in local mode.</p> <p>Checking Platform Revision for local TPD installation...</p> <p>The local machine is running:</p> <p>Product Name: SDS</p> <p>Base Distro Release: 8.4.0.0.0_84.9.0</p> <p>Checking Platform Revision for remote TPD installation...</p> <p>The remote machine is running:</p> <p>Product Name: SDS</p> <p>Base Distro Release: 8.4.0.0.0_84.9.0</p> <p>Enter the switch name for this console connection (default: "switch1A_console"), followed by [ENTER]:switch1A_console</p> <p>Enter the serial device designation for switch1A_console (default: "ttyUSB0"), followed by [ENTER]:ttyS4</p> <p>Configure additional serial consoles [Y/n]? [press ENTER for default <Y>]:n</p> <p>Configuring switch 'switch1A_console' console server...Configured.</p> <p>Configuring console repository service.....Configured.</p> <p>Remote host has the following available interfaces:</p> <ul style="list-style-type: none"> bond0 bond0.4 bond1 eth01 eth02 eth11 eth12 <p>Enter the name of the bond on the remote server(default: "bond0"), followed by [ENTER]: <PRESS ENTER KEY HERE></p> <p>...No entry provided for bond. Resorting to default.</p> <p>Slave interfaces for bond0:</p> <ul style="list-style-type: none"> bond0 interface: eth01 bond0 interface: eth11

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></pre> <p>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: 8.4.0.0.0_84.9.0 Checking Platform Revision for remote TPD installation... The remote machine is running: Product Name: SDS Base Distro Release: 8.4.0.0.0_84.9.0 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</p>

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

Step	Procedure	Result
8.	<p>SERVER A: Note: For DL380 GEN8: Setup conserver serial console access for switch1B.</p>	<pre>\$ sudo conserverSetup -i -s <SERVER_A_mgmtVLAN_ip_address></pre> <p>Example: \$ sudo conserverSetup -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: 8.4.0.0.0_84.9.0 Checking Platform Revision for remote TPD installation... The remote machine is running: Product Name: SDS Base Distro Release: 8.4.0.0.0_84.9.0 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: 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: eth11 </p>

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

Step	Procedure	Result
9.	<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></pre> <p>Example:</p> <pre>\$ sudo conserverSetup -i -u 169.254.1.11</pre> <p>Enter your platcfg username, followed by [ENTER]:platcfg</p> <p>Enter your platcfg password, followed by [ENTER]:</p> <p>Checking Platform Revision for local TPD installation...</p> <p>The local machine is running:</p> <pre>Product Name: SDS Base Distro Release: 8.4.0.0.0_84.9.0 Checking Platform Revision for remote TPD installation...</pre> <p>The remote machine is running:</p> <pre>Product Name: SDS Base Distro Release: 8.4.0.0.0_84.9.0 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
10. <input type="checkbox"/>	SERVER A: Add a repository for SSH service	\$ 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
11. <input type="checkbox"/>	SERVER A: Verify you have entered the information correctly for SSH service	\$ sudo netConfig --repo showService name=ssh_service Service Name: ssh_service Type: ssh Host: 169.254.1.11 Options: password: 615EBD88232A2EFD0080AC990393083D user: admusr
12. <input type="checkbox"/>	SERVER A: Add a repository for TFTP service	\$ 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
13. <input type="checkbox"/>	SERVER A: Verify that you have entered the information correctly for TFTP service	\$ sudo netConfig --repo showService name=tftp_service Service Name: tftp_service Type: tftp Host: 169.254.1.11 Options: dir: /var/lib/tftpboot/
14. <input type="checkbox"/>	SERVER A: Create console service for switch1A	\$ 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

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

Step	Procedure	Result
15. <input type="checkbox"/>	SERVER A: Verify you have entered the information correctly for switch1A console service	\$ sudo netConfig --repo showService name=switch1A_consvc Service Name: switch1A_consvc Type: conserver Host: 169.254.1.11 Options: password: 0B902ECD13D5BD2F1B57B5BFC6E95FE9 user: platcfg
16. <input type="checkbox"/>	SERVER A: Add repository for switch1B console service	\$ 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
17. <input type="checkbox"/>	SERVER A: Verify you have entered the information correctly for switch1B console service	\$ sudo netConfig --repo showService name=switch1B_consvc Service Name: switch1B_consvc Type: conserver Host: 169.254.1.11 Options: password: 0B902ECD13D5BD2F1B57B5BFC6E95FE9 user: platcfg
18. <input type="checkbox"/>	SERVER A: Verify and remove the service named "console_service" if present	\$ 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...

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

Step	Procedure	Result
19. <input type="checkbox"/>	<p>SERVER A:</p> <p>Add repository for switch1A</p>	<p>Note: - Remember to copy firmware file to this server.</p> <p>\$ sudo netConfig --repo addDevice name=switch1A --reuseCredentials</p> <p>Device Vendor? Cisco</p> <p>Device Model? 4948E-F</p> <p>What is the IPv4 (CIDR notation) or IPv6 (address/prefix notation) address for management?: 169.254.1.1/24</p> <p>Is the management interface a port or a vlan? [vlan]:vlan</p> <p>What is the VLAN ID of the management VLAN? [2]: 2</p> <p>What is the name of the management VLAN? [management]: management</p> <p>What switchport connects to the management server? [GE40]: GE5</p> <p>What is the switchport mode (access trunk) for the management server port? [trunk]: trunk</p> <p>What are the allowed vlans for the management server port? [1,2]: 1-4</p> <p>Enter the name of the firmware file [cat4500e-entservicesk9-mz.122-54.WO.bin]:</p> <p>Enter the name of the upgrade file transfer service: tftp_service</p> <p>File transfer service to be used in upgrade: tftp_service</p> <p>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.</p> <p>Should the init oob adapter be added (y/n)? y</p> <p>Adding consoleInit protocol for switch1A using oob...</p> <p>What is the name of the service used for OOB access? switch1A_cons</p> <p>What is the name of the console for OOB access? switch1A_console</p> <p>What is the platform access username? platcfg</p> <p>What is the device console password?</p> <p>Verify password:</p> <p>What is the platform user password?</p> <p>Verify password:</p> <p>What is the device privileged mode password?</p> <p>Verify password:</p> <p>Should the live network adapter be added (y/n)? y</p> <p>Adding cli protocol for switch1A using network...</p> <p>Network device access already set: 169.254.1.1</p> <p>Should the live oob adapter be added (y/n)? y</p> <p>Adding cli protocol for switch1A using oob...</p> <p>OOB device access already set: switch1A_cons</p> <p>Device named switch1A successfully added.</p>

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

Step	Procedure	Result
20. <input type="checkbox"/>	<p>SERVER A: Add repository for switch1B</p> <p>\$ sudo netConfig --repo addDevice name=switch1B --reuseCredentials</p> <p>Device Vendor? Cisco</p> <p>Device Model? 4948E-F</p> <p>What is the IPv4 (CIDR notation) or IPv6 (address/prefix notation) address for management?: 169.254.1.2/24</p> <p>Is the management interface a port or a vlan? [vlan]:vlan</p> <p>What is the VLAN ID of the management VLAN? [2]: 2</p> <p>What is the name of the management VLAN? [management]: management</p> <p>What switchport connects to the management server? [GE40]: GE5</p> <p>What is the switchport mode (access trunk) for the management server port? [trunk]: trunk</p> <p>What are the allowed vlans for the management server port? [1,2]: 1-4</p> <p>Enter the name of the firmware file [cat4500e-entservicesk9-mz.122-54.WO.bin]:</p> <p>Enter the name of the upgrade file transfer service: tftp_service</p> <p>File transfer service to be used in upgrade: tftp_service</p> <p>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.</p> <p>Should the init oob adapter be added (y/n)? y</p> <p>Adding consoleInit protocol for switch1A using oob...</p> <p>What is the name of the service used for OOB access? switch1B_cons</p> <p>What is the name of the console for OOB access? switch1B_console</p> <p>What is the platform access username? platcfg</p> <p>What is the device console password?</p> <p>Verify password:</p> <p>What is the platform user password?</p> <p>Verify password:</p> <p>What is the device privileged mode password?</p> <p>Verify password:</p> <p>Should the live network adapter be added (y/n)? y</p> <p>Adding cli protocol for switch1A using network...</p> <p>Network device access already set: 169.254.1.2</p> <p>Should the live oob adapter be added (y/n)? y</p> <p>Adding cli protocol for switch1A using oob...</p> <p>OOB device access already set: switch1B_cons</p> <p>Device named switch1B successfully added.</p>	

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

Step	Procedure	Result
21. <input type="checkbox"/>	SERVER A: Verify you have entered the information correctly	\$ sudo netConfig --repo listDevices Devices: Device: switch1A Vendor: Cisco Model: 4948E-F Access: Network: 169.254.1.1 Access: OOB: Service: switch1A_cons 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_cons Console: switch1B_console Init Protocol Configured Live Protocol Configured
22. <input type="checkbox"/>	SERVER A: Log in to switch1A	<i>Example:</i> console -M <SERVER A_mgmtVLAN_ip_address> -I platcfg switch1A_console \$ /usr/bin/console -M 169.254.1.11 -I platcfg switch1A_console Enter platcfg@pmac5000101's password: <platcfg_password> [Enter '^Ec?' for help] Press <Enter>
23. <input type="checkbox"/>	switch1A: Note the image version for comparison in a following step.	Switch> show version include image System image file is "bootflash:cat4500e-entservicesk9-mz.122-54.XO.bin" Note the image version for comparison in a following step.



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
27. <input type="checkbox"/>	Switch1A: Monitor the switch reboot until it returns to a login prompt.	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. Press RETURN to get started! < ENTER > Switch>
28. <input type="checkbox"/>	Switch1A: Enter "enable" mode.	Switch# enable Switch#
29. <input type="checkbox"/>	Switch1A: Verify that you see the correct IOS version listed in the bootflash.	Switch# dir bootflash: Directory of bootflash:/ 7 -rw- 25771102 Jan 31 2012 07:45:56 +00:00 cat4500e-entservicesk9-mz.122-54.XO.bin 128282624 bytes total (72122368 bytes free) Switch#
30. <input type="checkbox"/>	Switch1A: Close connection to switch.	Switch# quit Switch con0 is now available Press RETURN to get started.
31. <input type="checkbox"/>	switch1A: Note the image version for comparison in a following step.	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.
32. <input type="checkbox"/>	SERVER A: Log in to switch1B	Example: 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>
33. <input type="checkbox"/>	Switch1B: Note the image version for comparison in a following step.	Switch> show version include image System image file is "bootflash:cat4500e-entservicesk9-mz.122-54.XO.bin" Note the image version for comparison in a following step.



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
37. <input type="checkbox"/>	Switch1B: Monitor the switch reboot until it returns to a login prompt.	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. Press RETURN to get started! <ENTER> Switch>
38. <input type="checkbox"/>	Switch1B: Enter "enable" mode.	Switch# enable Switch#
39. <input type="checkbox"/>	Switch1B: Verify that you see the correct IOS version listed in the bootflash.	Switch# dir bootflash: Directory of bootflash:/ 7 -rw- 25771102 Jan 31 2012 07:45:56 +00:00 cat4500e-entservicesk9-mz.122-54.XO.bin 128282624 bytes total (72122368 bytes free) Switch#
40. <input type="checkbox"/>	Switch1B: Close connection to switch.	Switch# quit Switch con0 is now available Press RETURN to get started.
41. <input type="checkbox"/>	Switch1B: Note the image version for comparison in a following step.	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.
42.		Open firewall with command: 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 Turn on tftp: \$ tpdProvD --client --noxml --ns=Xinetd startXinetdService service tftp Login on Remote: platcfg Password of platcfg: <platcfg_password> 1 \$

Step	Procedure	Result
43. <input type="checkbox"/>	SERVER A: Initialize switch 1A	<pre>\$ sudo netConfig --file=/usr/TKLC/plat/etc/switch/xml/switch1A_SDS_4948E_E-F_init.xml</pre> <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>
44. <input type="checkbox"/>	SERVER A: Initialize switch 1B	<pre>\$ sudo netConfig --file=/usr/TKLC/plat/etc/switch/xml/switch1B_SDS_4948E_E-F_init.xml</pre> <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.	<p>SERVER A:</p> <p><input type="checkbox"/> Ping switch 1A's SVI (router interface) addresses to verify switch initialization.</p> <p>Note: VIP addresses are not yet available.</p>	<pre>\$ ping -c 15 169.254.1.1 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
46.	<p>SERVER A:</p> <p><input type="checkbox"/> 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 PING 169.254.1.2 (169.254.1.2) 56(84) bytes of data. 64 bytes from 169.254.1.2: icmp_seq=9 ttl=255 time=2.76 ms 64 bytes from 169.254.1.2: icmp_seq=10 ttl=255 time=0.397 ms 64 bytes from 169.254.1.2: icmp_seq=11 ttl=255 time=0.448 ms 64 bytes from 169.254.1.2: icmp_seq=12 ttl=255 time=0.382 ms 64 bytes from 169.254.1.2: icmp_seq=13 ttl=255 time=0.426 ms 64 bytes from 169.254.1.2: icmp_seq=14 ttl=255 time=0.378 ms 64 bytes from 169.254.1.2: icmp_seq=15 ttl=255 time=0.431 ms --- 169.254.1.2 ping statistics --- 15 packets transmitted, 7 received, +6 errors, 53% packet loss, time 14003ms rtt min/avg/max/mdev = 0.378/0.747/2.769/0.825 ms, pipe 3</pre> <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>
47.	<p><input type="checkbox"/> 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 Processing file: /usr/TKLC/plat/etc/switch/xml/Primary_switch1A_SDS_4948E-F_configure.xml \$</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.

Step	Procedure	Result
48.	SERVER A: Configure switch 1B	<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> <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.
49.	<input type="checkbox"/> SERVER A: Undo the temporary changes. (If netconfig is used to update the firmware then this is not needed)	<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>
50.	<input type="checkbox"/> Close firewall. (If netconfig is used to update the firmware then this is not needed)	Close firewall with command: <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.	<input type="checkbox"/> SERVER A: Verify the switch is using the correct IOS image per platform version.	<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
52. <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>	<p>\$ sudo service network restart</p> <p>[admusr@mrvnc-sds-NO-a xml]\$ sudo service network restart</p> <p>Shutting down interface bond0.2: [OK]</p> <p>Shutting down interface bond0.4: [OK]</p> <p>Shutting down interface bond0: [OK]</p> <p>Shutting down interface bond1: [OK]</p> <p>Shutting down loopback interface: [OK]</p> <p>Bringing up loopback interface: [OK]</p> <p>Bringing up interface bond0: [OK]</p> <p>Bringing up interface bond1: Determining if ip address 10.75.160.146 is already in use for device bond1... [OK]</p> <p>Bringing up interface bond0.2: Determining if ip address 169.254.1.11 is already in use for device bond0.2... [OK]</p> <p>Bringing up interface bond0.4: Determining if ip address 169.254.100.11 is already in use for device bond0.4... [OK]</p> <p>\$</p>

Step	Procedure	Result
53.	<p> SERVER A:</p> <p><input type="checkbox"/> 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> <pre>PING 169.254.1.1 (169.254.1.1) 56(84) bytes of data.</pre> <pre>64 bytes from 169.254.1.1: icmp_seq=1 ttl=255 time=0.430 ms</pre> <pre>64 bytes from 169.254.1.1: icmp_seq=2 ttl=255 time=0.426 ms</pre> <pre>64 bytes from 169.254.1.1: icmp_seq=3 ttl=255 time=0.427 ms</pre> <pre>64 bytes from 169.254.1.1: icmp_seq=4 ttl=255 time=0.426 ms</pre> <pre>64 bytes from 169.254.1.1: icmp_seq=5 ttl=255 time=0.431 ms</pre> <pre>--- 169.254.1.1 ping statistics ---</pre> <pre>5 packets transmitted, 5 received, 0% packet loss, time 4003ms</pre> <pre>rtt min/avg/max/mdev = 0.426/0.428/0.431/0.002 ms</pre> <pre>\$</pre>
54.	<p> SERVER A:</p> <p><input type="checkbox"/> 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</pre> <pre>PING 169.254.1.2 (169.254.1.2) 56(84) bytes of data.</pre> <pre>64 bytes from 169.254.1.2: icmp_seq=1 ttl=255 time=0.401 ms</pre> <pre>64 bytes from 169.254.1.2: icmp_seq=2 ttl=255 time=0.394 ms</pre> <pre>64 bytes from 169.254.1.2: icmp_seq=3 ttl=255 time=0.407 ms</pre> <pre>64 bytes from 169.254.1.2: icmp_seq=4 ttl=255 time=0.393 ms</pre> <pre>64 bytes from 169.254.1.2: icmp_seq=5 ttl=255 time=0.401 ms</pre> <pre>--- 169.254.1.2 ping statistics ---</pre> <pre>5 packets transmitted, 5 received, 0% packet loss, time 3999ms</pre> <pre>rtt min/avg/max/mdev = 0.393/0.399/0.407/0.013 ms</pre> <pre>\$</pre>

Step	Procedure	Result
55. <input type="checkbox"/>	SERVER A: Verify SSH capability from server A to switch 1A.	\$ 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>
56. <input type="checkbox"/>	SERVER A: Close SSH connection to switch 1A.	\$ quit Connection to 169.254.1.1 closed.
57. <input type="checkbox"/>	SERVER A: Verify SSH capability from server A to switch 1B	\$ 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>
58. <input type="checkbox"/>	SERVER A: Close SSH connection to switch 1A.	\$ quit Connection to 169.254.1.2 closed.
59. <input type="checkbox"/>	SERVER B: Ping switch 1A's SVI (router interface) addresses to verify switch configuration. Note: VIP addresses are not yet available.	\$ 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

Step	Procedure	Result
60. <input type="checkbox"/>	SERVER B: Ping switch 1B's SVI (router interface) addresses to verify switch configuration. Note: VIP addresses are not yet available	\$ 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
61. <input type="checkbox"/>	SERVER B: Verify SSH capability from server B to switch 1A.	\$ 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>
62. <input type="checkbox"/>	SERVER B: Close SSH connection to switch 1A.	switch1A> quit Connection to 169.254.1.1 closed.
63. <input type="checkbox"/>	SERVER B: Verify SSH capability from server B to switch 1B	\$ 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>
64. <input type="checkbox"/>	SERVER B: Close SSH connection to switch 1B.	switch1B> quit Connection to 169.254.1.2 closed.
65. <input type="checkbox"/>	SERVER A: Exit from the command line to return the server console to the login prompt.	\$ exit logout

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
5.	SERVER A: Place USB drive containing the HP Misc Firmware image with the correct 4948E-F IOS version into the SERVER A front panel USB port.	 Figure 3 - HP DL380 Gen8, Front Panel (USB Port)
6.	SERVER A: Copy IOS image onto the system	\$ 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
7.	Open firewall	Open firewall with command: 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
8.	SERVER A: Prepare the system for IOS transfer.	\$ tpdProvD -client --noxml --ns=Xinetd startXinetdService service tftp Login on Remote: platcfg Password of platcfg: <platcfg_password> 1 \$
9.	SERVER A: Verify the current bonded interface configuration.	\$ 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 \$ Execute one of the following options: <ul style="list-style-type: none">• <i>If bond0 & bond0.2 are both present, skip to Step 11.</i>• <i>If only bond0 is present, continue with the following step.</i>

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

Step	Procedure	Result
10.	<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 \$ sudo netAdm add --device=bond0 --onboot=yes --type=Bonding --mode=active-backup --miimon=100 --bootproto=none \$ sudo netAdm set --device=eth01 --bootproto=none --type=Ethernet --master=bond0 --slave=yes --onboot=yes \$ sudo netAdm set --device=eth11 --bootproto=none --type=Ethernet --master=bond0 --slave=yes --onboot=yes Add the <SERVER A_mgmtVLAN_IP_address> to bond0.2 \$ 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 \$ sudo netAdm add --device=bond0 --onboot=yes --type=Bonding --mode=active-backup --miimon=100 --bootproto=none \$ sudo netAdm set --device=eth01 --bootproto=none --type=Ethernet --master=bond0 --slave=yes --onboot=yes \$ sudo netAdm set --device=eth02 --bootproto=none --type=Ethernet --master=bond0 --slave=yes --onboot=yes Add the <SERVER A_mgmtVLAN_IP_address> to bond0.2 \$ 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
11.	SERVER A: <input type="checkbox"/> Disable the bond0.2 interface to switch1B and verify the bond0.2 IP address.	<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>
12.	SERVER A: <input type="checkbox"/> Connect to switch1A console	<pre>console -M <SERVER A_mgmtVLAN_ip_address> -I platcfg switch1A_console \$ /usr/bin/console -M 169.254.1.11 -I platcfg switch1A_console</pre> <p>Enter platcfg@pmac5000101's password: <platcfg_password> [Enter '^Ec?' for help] Press <Enter></p>

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

Step	Procedure	Result
13. <input type="checkbox"/>	switch1A: Enter enable mode	Switch> enable Switch#
14. <input type="checkbox"/>	switch1A: Configure switch port with this sequence of commands	Switch# conf t Switch(config)# vlan 2 Switch(config)# int vlan 2 Switch(config-if)# ip address 169.254.1.1 255.255.255.0 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
15. <input type="checkbox"/>	switch1A: Test connectivity	ping <SERVER A_mgmtVLAN_ip_address> Switch# ping 169.254.1.11 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 <i>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>
16. <input type="checkbox"/>	switch1A: Upload IOS image to switch	Switch# copy tftp: bootflash: Address or name of remote host []? <SERVER A_mgmtVLAN_ip_address> Source filename []? <New_IOS_image_file> Destination filename [<New_IOS_image_file>]? <ENTER> Press <Enter> here, you do NOT want to change the filename Accessing tftp://<SERVER A_mgmtVLAN_ip address>/<IOS_image_file>... Loading <IOS_image_file> from <SERVER A_mgmtVLAN_ip_address> (via Vlan2): !!!!!!![OK – 45606 bytes] 45606 bytes copied in 3.240 secs (140759 bytes/sec)
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 noted by the variable <OLD_IOS_image>

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

Step	Procedure	Result
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#
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.

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

Step	Procedure	Result
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 <i>NOTE: The command output should contain the IP address of the variable <SERVER A_mgmtVLAN_ip_address>.</i>
27. <input type="checkbox"/>	SERVER A: Connect to switch1B console	console -M <SERVER A_mgmtVLAN_ip_address> -I platcfg switch1B_console \$ /usr/bin/console -M 169.254.1.11 -I 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#
29. <input type="checkbox"/>	switch1B: Configure switch port with this sequence of commands	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

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

Step	Procedure	Result
30. <input type="checkbox"/>	switch1B: Test connectivity	ping <management_SERVER A_mgmtVLAN_ip_address> Switch# ping 169.254.1.11 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 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.
31. <input type="checkbox"/>	switch1B: Upload IOS image to switch	Switch# copy tftp: bootflash: Address or name of remote host []? <management_SERVER A_mgmtVLAN_ip_address> Source filename []? <New_IOS_image_file> Destination filename [<New_IOS_image_file>]? <ENTER> Press <Enter> here, you do NOT want to change the filename 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] 45606 bytes copied in 3.240 secs (140759 bytes/sec)
32. <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 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 noted by the variable <OLD_IOS_image>
33. <input type="checkbox"/>	switch1B: Remove old IOS image	Switch# delete /force /recursive bootflash:<OLD_IOS_image> Switch#
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.

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

Step	Procedure	Result
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.
40. <input type="checkbox"/>	switch1A: Exit the switch1A console session.	Switch# < CTRL-e >< c ><. > Hot Key sequence: Ctrl-E, C, period

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

Step	Procedure	Result
41. <input type="checkbox"/>	SERVER A: Re-enable the bond0.2 interface to switch1A.	On SERVER A ensure that the both bond0.2 interfaces are up: For Gen8: <code>\$ sudo ifup eth11</code> <code>\$ sudo ifup eth01</code> For Gen9: <code>\$ sudo ifup eth02</code> <code>\$ sudo ifup eth01</code>
42.	Close firewall	<code>\$ 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</code>
43. <input type="checkbox"/>	SERVER A: Stop the "tftp" service.	<code>\$ tpdProvD --client --noxml --ns=Xinetd stopXinetdService service tftp</code> Login on Remote: platcfg Password of platcfg: <platcfg_password> 1
44.		Return to Appendix D.2
THIS PROCEDURE HAS BEEN COMPLETED		

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"?>	
<nworkelement>	
<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>	
</nworkelement>	

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. <input type="checkbox"/> 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 bpstart_notify and bpend_notify scripts is required for the execution of this step. These scripts are located as follows:</p> <p><code>/usr/TKLC/appworks/sbin/bpstart_notify</code> <code>/usr/TKLC/appworks/sbin/bpend_notify</code></p>		
2. <input type="checkbox"/>	Link notify scripts to well-known path stated in the above step	<p>Link the notify scripts to well-known path stated in the above step</p> <p><code>In -s <path>/bpstart_notify /usr/openv/netbackup/bin/bpstart_notify</code></p> <p><code>In -s <path>/bpend_notify /usr/openv/netbackup/bin/bpend_notify</code></p>
3. <input type="checkbox"/>	Verify if the Netbackup port 1556 is opened for IPv4 protocol	<p>Verify if the NetBackup port 1556 is opened on IPv4 protocol:</p> <p><code>iptables -L 60sds-INPUT -n grep 1556</code></p> <p>If there is no output, then enable the port 1556 for NetBackup on IPv4:</p> <p><code>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</code></p>
4. <input type="checkbox"/>	Verify if the Netbackup port 1556 is opened for IPv6 protocol	<p>Verify if the NetBackup port 1556 is opened on IPv6 protocol:</p> <p><code>ip6tables -L 60sds-INPUT -n grep 1556</code></p> <p>If there is no output, then enable the port 1556 for NetBackup on IPv6 protocol:</p> <p><code>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</code></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

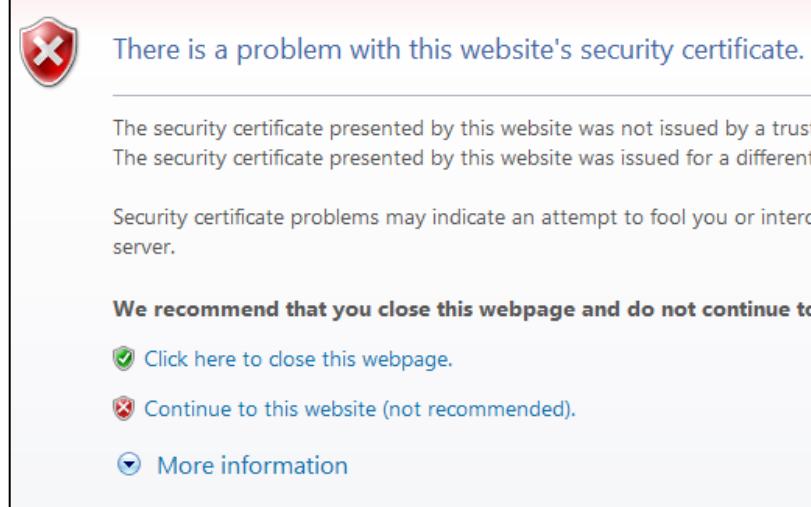
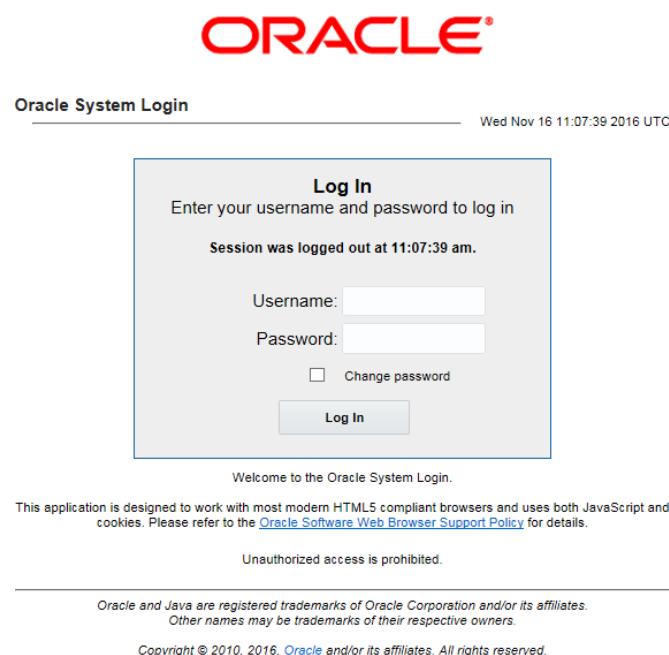
Time Zone Value	Description	Universal Time Code (UTC) Offset
<i>Etc/UTC</i>	Coordinated Universal Time	UTC-00
<i>America/New_York</i>	Eastern Time	UTC-05
<i>America/Chicago</i>	Central Time	UTC-06
<i>America/Denver</i>	Mountain Time	UTC-07
<i>America/Phoenix</i>	Mountain Standard Time - Arizona	UTC-07
<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

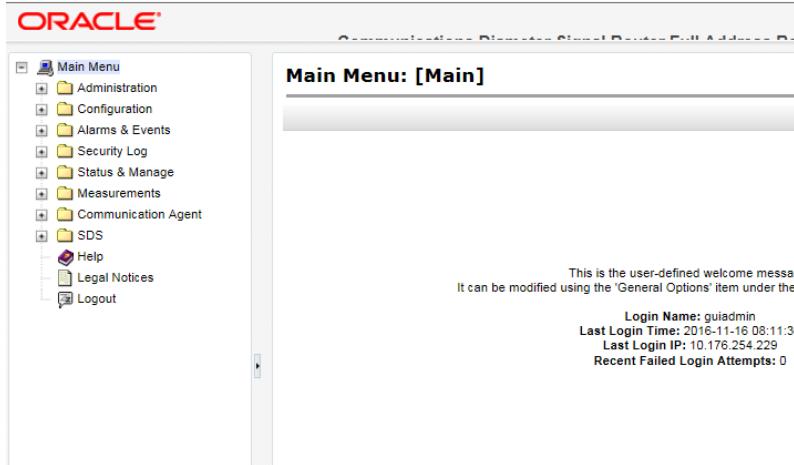
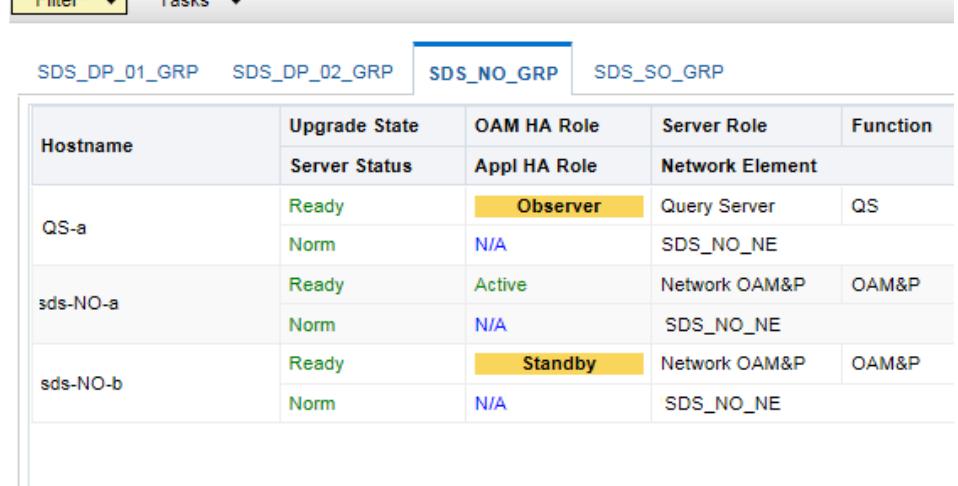
<i>America/Jamaica</i>		UTC-05
<i>Europe/Rome</i>		UTC+01
<i>Asia/Hong_Kong</i>		UTC+08
<i>Pacific/Guam</i>		UTC+10
<i>Europe/Athens</i>		UTC+02
<i>Europe/London</i>		UTC+00
<i>Europe/Paris</i>		UTC+01
<i>Europe/Madrid</i>	mainland	UTC+01
<i>Africa/Cairo</i>		UTC+02
<i>Europe/Copenhagen</i>		UTC+01
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

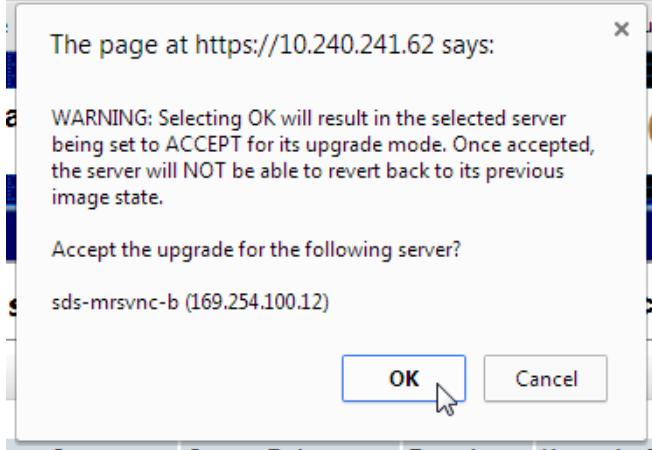
<i>America/Sao_Paulo</i>	South & Southeast Brazil	UTC-03
<i>Europe/Brussels</i>		UTC+01
<i>Australia/Perth</i>	Western Australia - most locations	UTC+08
<i>Australia/Sydney</i>	New South Wales - most locations	UTC+10
<i>Asia/Seoul</i>		UTC+09
<i>Africa/Lagos</i>		UTC+01
<i>Europe/Warsaw</i>		UTC+01
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

Appendix H. ACCEPTING INSTALLATION THROUGH SDS NOAM GUI

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

Step	Procedure	Result
1.	<p>Primary SDS VIP: <input type="checkbox"/> Launch an approved web browser and connect to the XMI Virtual IP Address (VIP) of the Active SDS site</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>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 server.</p> <p>We recommend that you close this webpage and do not continue to this website.</p> <p> <input checked="" type="checkbox"/> Click here to close this webpage. <input type="checkbox"/> Continue to this website (not recommended). <input type="checkbox"/> More information </p>
2.	<p>Primary SDS VIP: <input type="checkbox"/> 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>ORACLE®</p> <p>Oracle System Login Wed Nov 16 11:07:39 2016 UTC</p> <div style="border: 1px solid #ccc; padding: 10px; width: fit-content; margin: 10px auto;"> <p style="text-align: center;">Log In Enter your username and password to log in Session was logged out at 11:07:39 am.</p> <p style="text-align: center;">Username: <input type="text"/> Password: <input type="password"/></p> <p style="text-align: center;"><input type="checkbox"/> Change password</p> <p style="text-align: center;">Log In</p> </div> <p>Welcome to the Oracle System Login.</p> <p>This application is designed to work with most modern HTML5 compliant browsers and uses both JavaScript and cookies. Please refer to the Oracle Software Web Browser Support Policy for details.</p> <p>Unauthorized access is prohibited.</p> <p><small>Oracle and Java are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.</small></p> <p><small>Copyright © 2010, 2016, Oracle and/or its affiliates. All rights reserved.</small></p>

Step	Procedure	Result
3.	<p>Primary SDS VIP: <input type="checkbox"/> The user should be presented the SDS Main Menu as shown on the right.</p>	
4.	<p>Primary SDS VIP: <input type="checkbox"/> Using the cursor left-click, select the row containing the Server(s) for which you would like to “Accept” upgrade.</p> <p>NOTE: <i>Multi-select is available by holding down the “CTRL” key while using the cursor to left-click multiple rows.</i></p>	<p>Main Menu: Administration -> Software Management -> Upgrade</p> 
5.	<p>Primary SDS VIP: <input type="checkbox"/> Using the cursor left-click, select the “Accept” dialogue button.</p>	

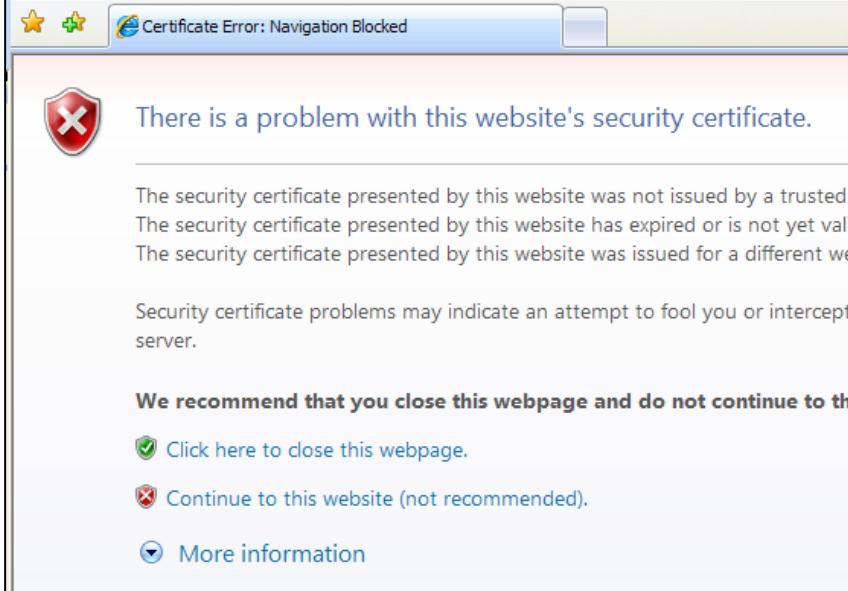
Step	Procedure	Result
6. <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>The user is presented with a dialogue box stating that the “Accept Upgrade” action is irreversible and locks the Server on the current software release (<i>i.e. Backout to the previous release is no longer allowed</i>).</p>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

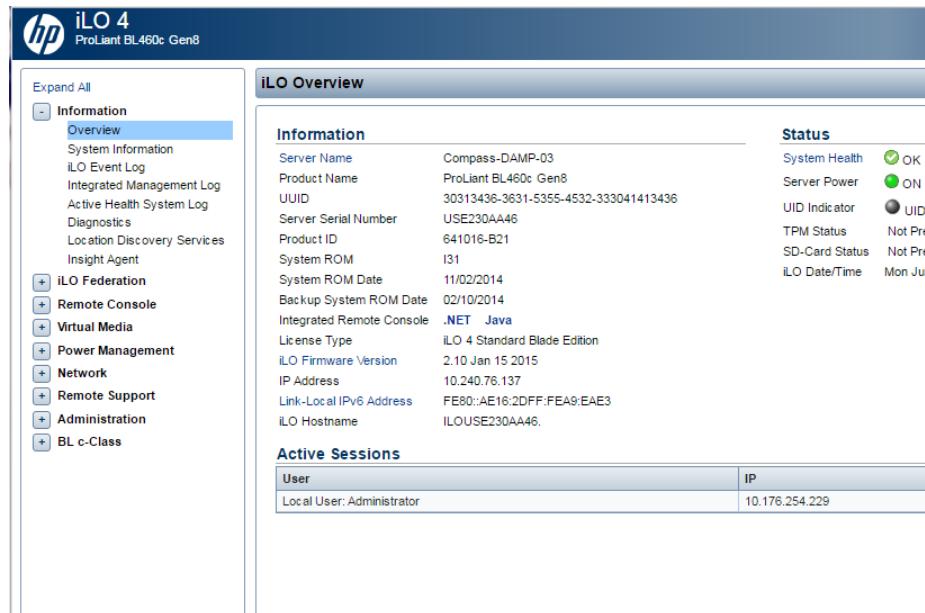
THIS PROCEDURE HAS BEEN COMPLETED

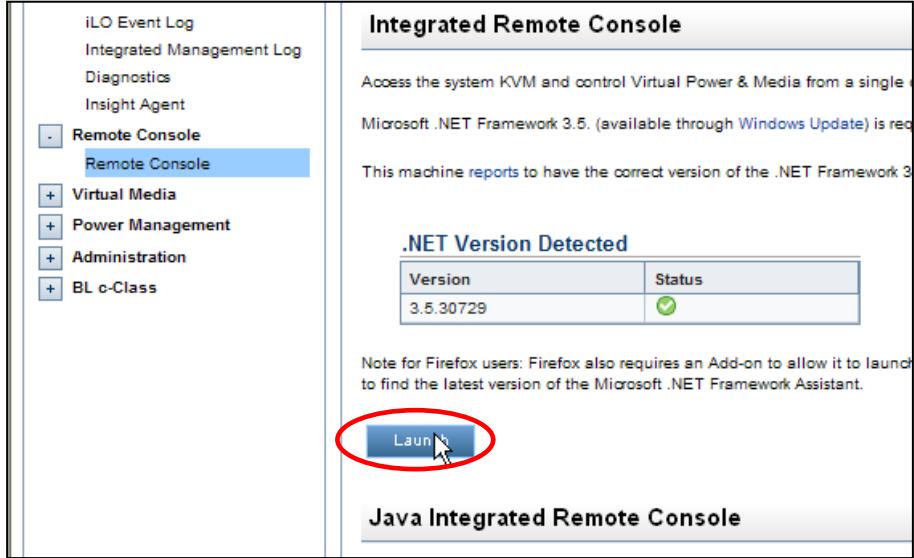
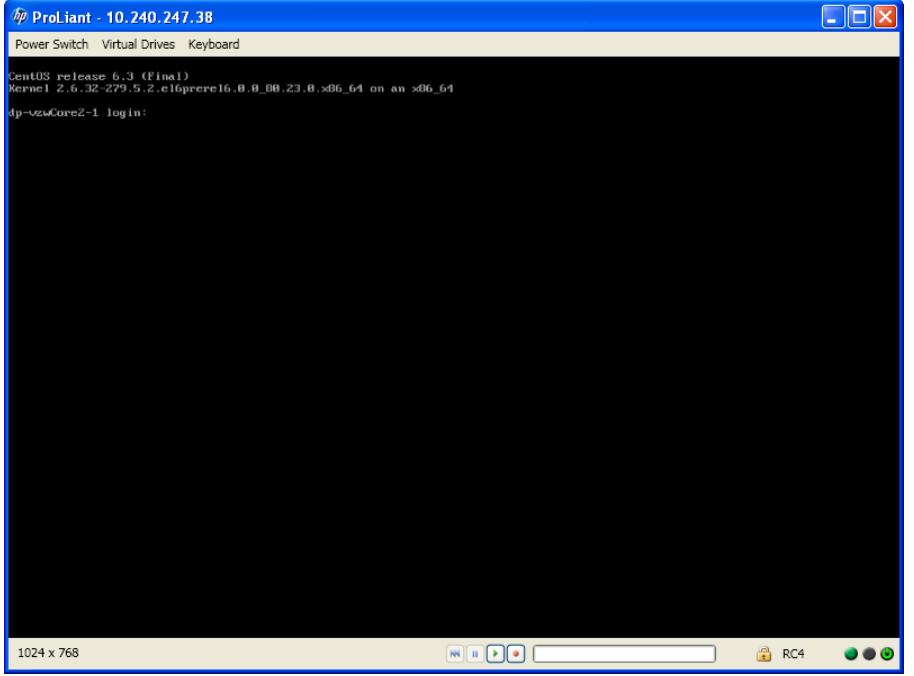
Appendix I. DISABLE HYPERTHREADING FOR GEN8 & GEN9 (DP ONLY)

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

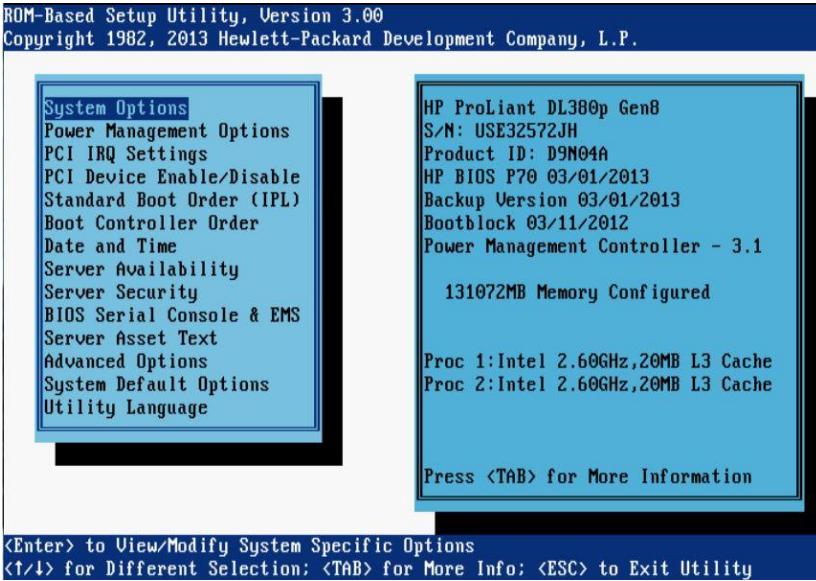
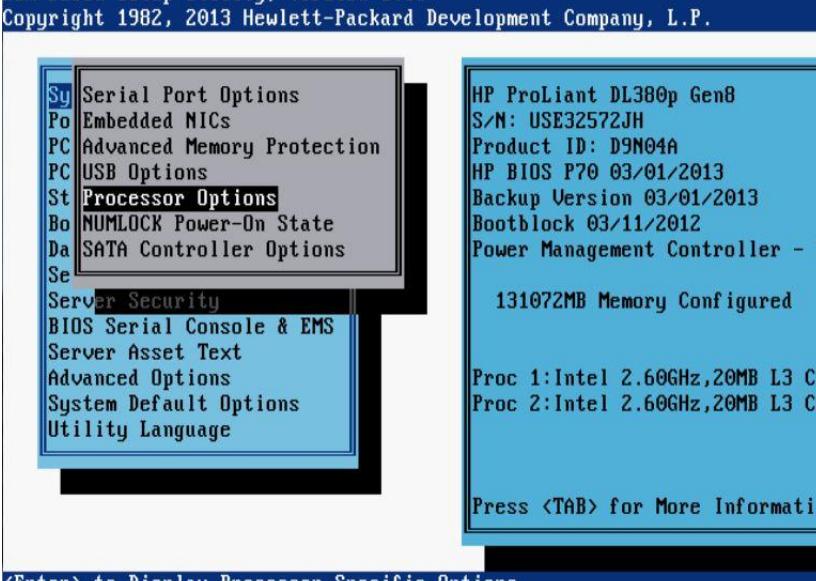
Step	Procedure	Result
1. <input type="checkbox"/>	DP Server XMI IP (SSH): Access the command prompt via DP blade's XMI IP address and log into the server as the " admusr " user.	login: admusr Password: <admusr_password>
2. <input type="checkbox"/>	DP Server XMI IP (SSH): Execute " hpasmcli " command to determine status of hyperthreading for the DP blade.	\$ sudo hpasmcli -s "show ht" Processor hyper-threading is currently enabled. NOTE: Output returned may state " enabled " or " disabled ".
3. <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. 	
4. <input type="checkbox"/>	Launch the Internet Explorer web browser and connect to the DP-iLO GUI interface. NOTE: Always use <i>https://</i> for iLO GUI access.	 !!! WARNING !!! <i>Verify the DP-iLO IP address before proceeding. The user must login using the DP-iLO IP address only.</i>

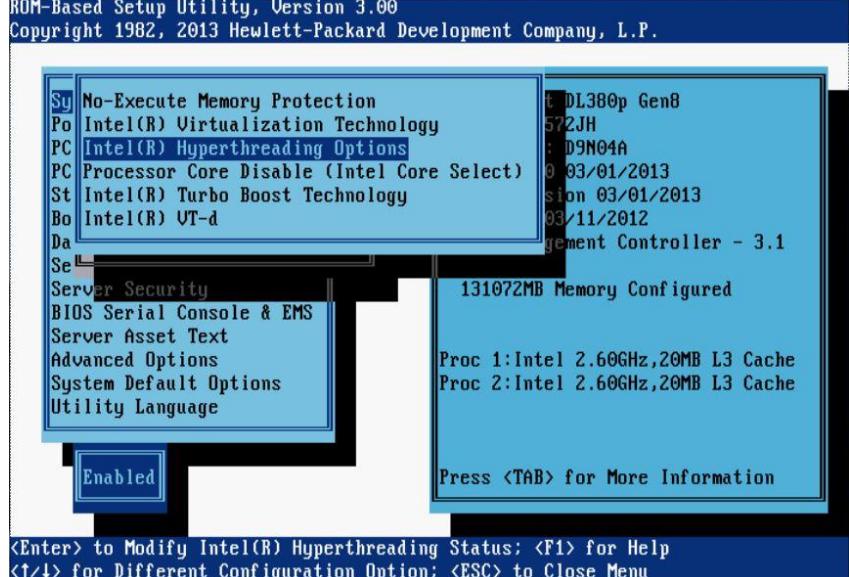
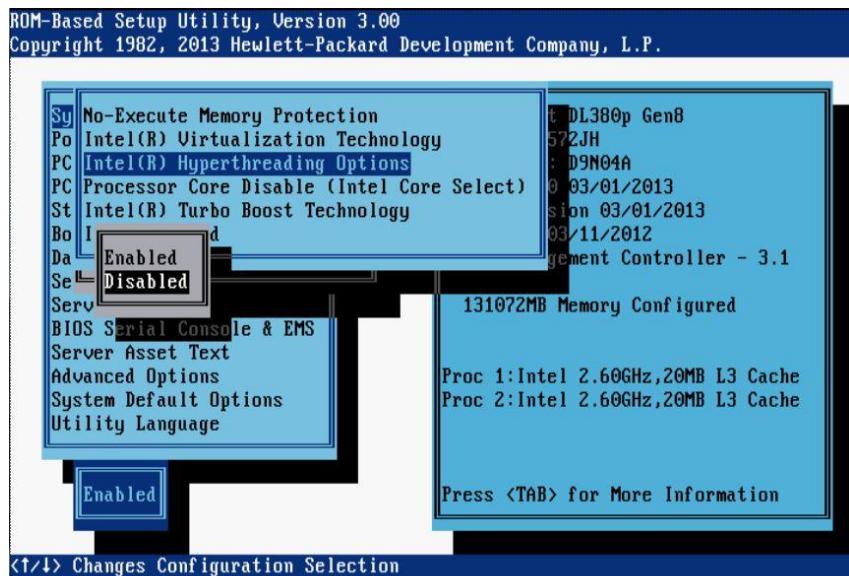
Step	Procedure	Result
5.	<p>The web browser will display a warning message regarding the Security Certificate.</p> <p>NOTE: If presented with the “security certificate” warning screen shown to the right, choose the following option: “Continue to this website (not recommended)”.</p>	
6.	<p>Login to the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

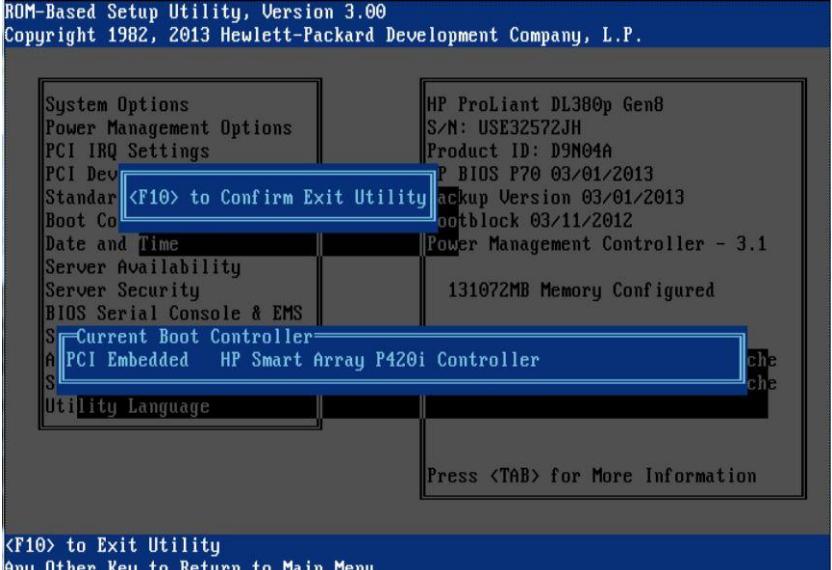
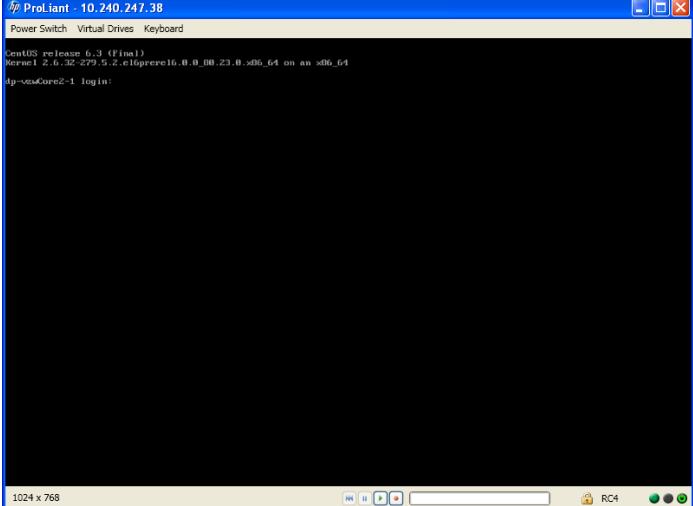
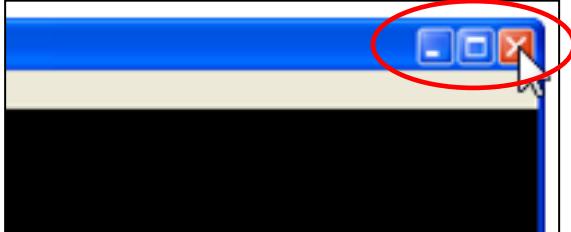
Step	Procedure	Result
7. <input type="checkbox"/>	<p>The admin GUI is displayed.</p> <p>Select the “Remote Console” tab in the upper left corner of the GUI.</p>	 <p>The screenshot shows the iLO 4 Admin GUI. The left sidebar has a tree view with 'Information' expanded, showing 'Overview' (selected), 'System Information', 'iLO Event Log', 'Integrated Management Log', 'Active Health System Log', 'Diagnostics', 'Location Discovery Services', 'Insight Agent', 'iLO Federation', 'Remote Console' (circled in red), 'Virtual Media', 'Power Management', 'Network', 'Remote Support', 'Administration', and 'BL c-Class'. The main content area is titled 'iLO Overview' and contains two tabs: 'Information' and 'Status'. The 'Information' tab displays various server details like Server Name (Compass-DAMP-03), Product Name (ProLiant BL460c Gen8), and System ROM (I31). The 'Status' tab shows system health (OK), server power (ON), and other status indicators. Below these tabs is a 'Active Sessions' table with one entry: Local User: Administrator (IP 10.176.254.229).</p>
8. <input type="checkbox"/>	<p>The Remote Console Information GUI is displayed</p> <p>Click on the “Remote Console” menu option</p>	 <p>The screenshot shows the iLO 4 Remote Console GUI. The left sidebar has a tree view with 'Information' expanded, showing 'Overview', 'System Information', 'iLO Event Log', 'Integrated Management Log', 'Active Health System Log', 'Diagnostics', 'Location Discovery Services', 'Insight Agent', 'iLO Federation', 'Remote Console' (circled in red), 'Virtual Media', 'Power Management', 'Network', and 'Remote Support'. The right side of the screen has a 'Remote Console' tab selected, showing 'Launch' and 'Java' buttons. Below this is a 'NET Integration' section with a note for Firefox and a note for Chrome. The note for Firefox says 'Note for Firefox: If you are using Firefox, you may need to use the Microsoft .NET Framework Assistant to run the .NET console application.' The note for Chrome says 'Note for Chrome: As a workaround for this issue, you can use the following: • Integrated • Standalone • Internet Explorer'.</p>

Step	Procedure	Result				
9.	<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>	 <p>Integrated Remote Console</p> <p>Access the system KVM and control Virtual Power & Media from a single Microsoft .NET Framework 3.5. (available through Windows Update) is required.</p> <p>This machine reports to have the correct version of the .NET Framework 3.5.</p> <p>.NET Version Detected</p> <table border="1"> <thead> <tr> <th>Version</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>3.5.30729</td> <td></td> </tr> </tbody> </table> <p>Note for Firefox users: Firefox also requires an Add-on to allow it to launch to find the latest version of the Microsoft .NET Framework Assistant.</p> <p>Java Integrated Remote Console</p>	Version	Status	3.5.30729	
Version	Status					
3.5.30729						
10.	<p>The iLO Console window is displayed.</p> <p>NOTE: The console window resembles an MS-DOS window but DOES NOT have a scroll-back buffer.</p>					
11.	<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>				

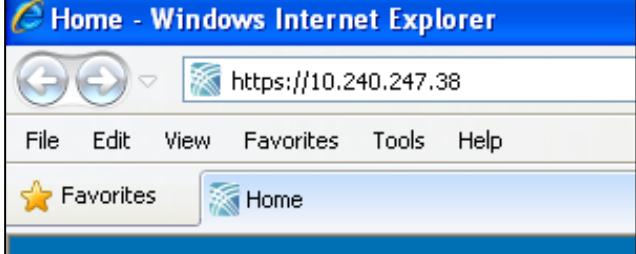
Step	Procedure	Result
12. <input type="checkbox"/>	<p>Reboot the server.</p> <p>This can be achieved by logging in as the “” user and executing init 6 command at the command prompt.</p>	<p>\$ sudo init 6</p> <p>NOTE: <i>It is normal for the Remote Console window to stay blank for up to 3 minutes before initial output appears.</i></p>
13. <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: ROM-Based Setup Utility is accessed and the ROM-Based Setup Utility menu will be displayed.</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>

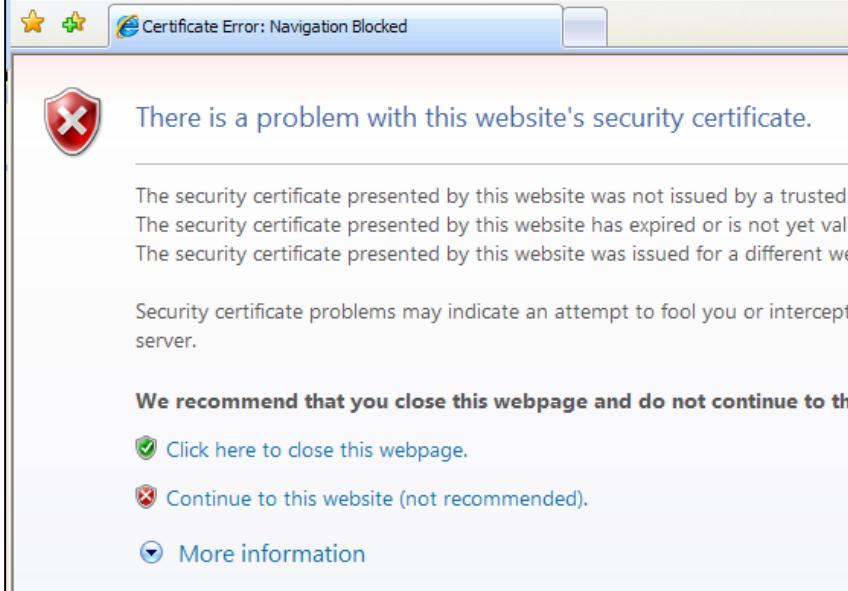
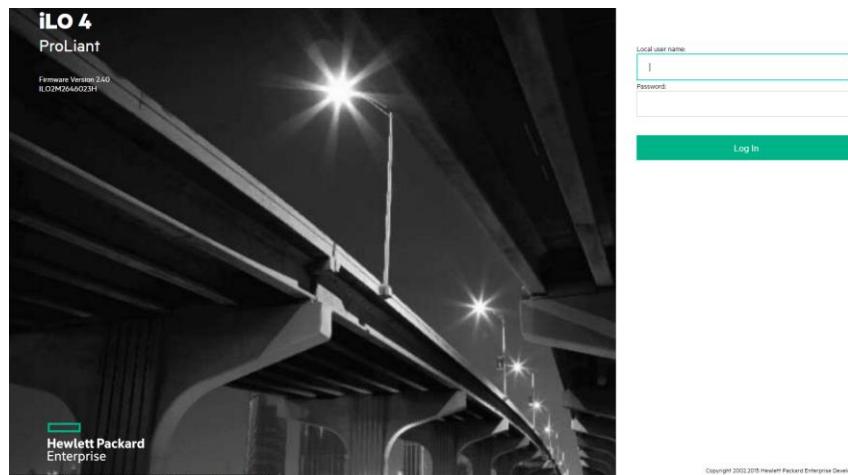
Step	Procedure	Result
14.	Select System Options	<p>Scroll to System Options and press [ENTER]</p>  <p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p> <p>System Options</p> <p>Power Management Options PCI IRQ Settings PCI Device Enable/Disable Standard 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: D9N04A 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</p> <p>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>
15.	Select Processor Options	<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>Processor Options</p> <p>Serial Port Options Embedded NICs Advanced Memory Protection USB Options Processor Options NUMLOCK Power-On State SATA Controller Options</p> <p>HP ProLiant DL380p Gen8 S/N: USE32572JH Product ID: D9N04A 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</p> <p>Press <TAB> for More Information</p> <p><Enter> to Display Processor Specific Options <↑/↓> for Different Configuration Option; <ESC> to Close Menu</p>

Step	Procedure	Result
16. <input type="checkbox"/>	Select Hyper threading Options	<p>Select Intel® Hyper threading Options and press [ENTER].</p>  <p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p> <p>No-Execute Memory Protection Intel(R) Virtualization Technology Intel(R) Hyperthreading Options Processor Core Disable (Intel Core Select) Intel(R) Turbo Boost Technology Intel(R) VT-d Data Server Security BIOS Serial Console & EMS Server Asset Text Advanced Options System Default Options Utility Language</p> <p>Enabled</p> <p>DL380p Gen8 572JH : D9N04A 0 03/01/2013 sion 03/01/2013 03/11/2012 gement Controller - 3.1</p> <p>131072MB 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 Modify Intel(R) Hyperthreading Status; <F1> for Help <↑↓> for Different Configuration Option; <ESC> to Close Menu</p>
17. <input type="checkbox"/>	Set hyperthreading to Disabled .	<p>Select Disabled option and press [ENTER].</p>  <p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p> <p>No-Execute Memory Protection Intel(R) Virtualization Technology Intel(R) Hyperthreading Options Processor Core Disable (Intel Core Select) Intel(R) Turbo Boost Technology Intel(R) VT-d Data Disabled</p> <p>Enabled</p> <p>DL380p Gen8 572JH : D9N04A 0 03/01/2013 sion 03/01/2013 03/11/2012 gement Controller - 3.1</p> <p>131072MB 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><↑↓> Changes Configuration Selection <Enter> Saves Selection; <ESC> to Cancel</p>

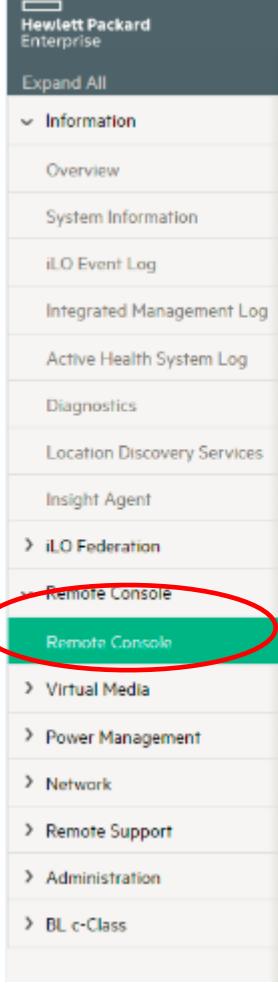
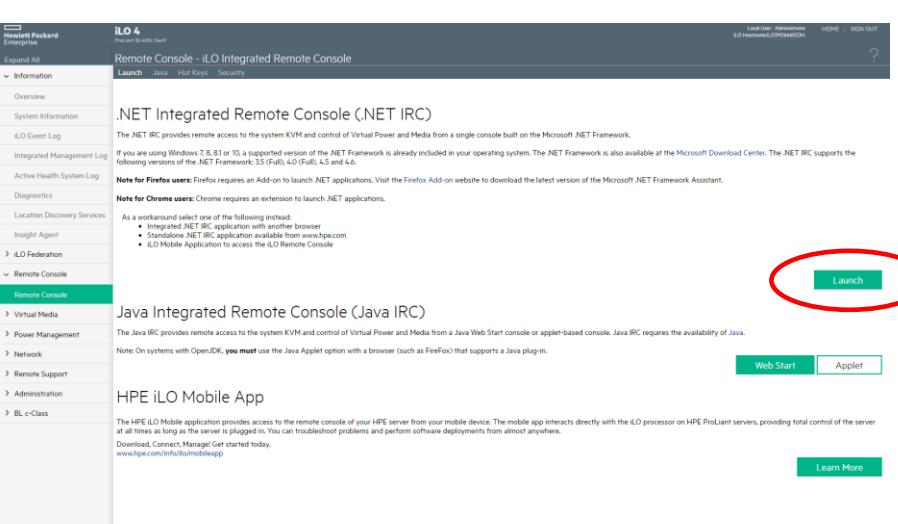
Step	Procedure	Result
18. <input type="checkbox"/>	<p>Save Configuration and Exit.</p> <p>NOTE: <i>It is normal for the Remote Console window to stay blank for up to 3 minutes before initial output appears.</i></p>	<p>Press [F10] to save the configuration and exit. The server will reboot</p>  <p>Expected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

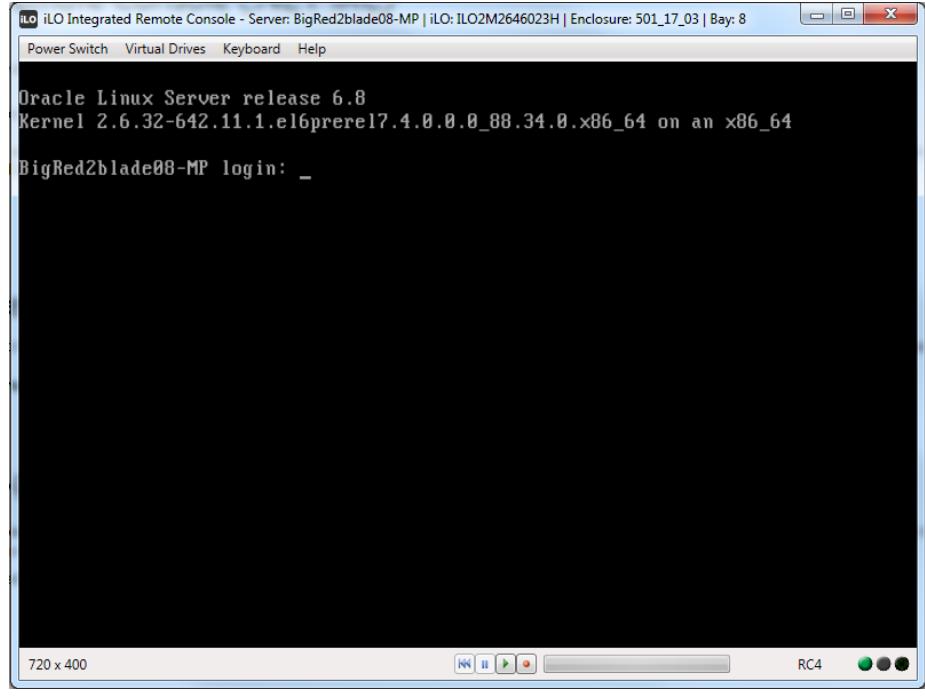
I.2 Gen9: Disable Hyperthreading For GEN8 & Gen9 (DP Only)

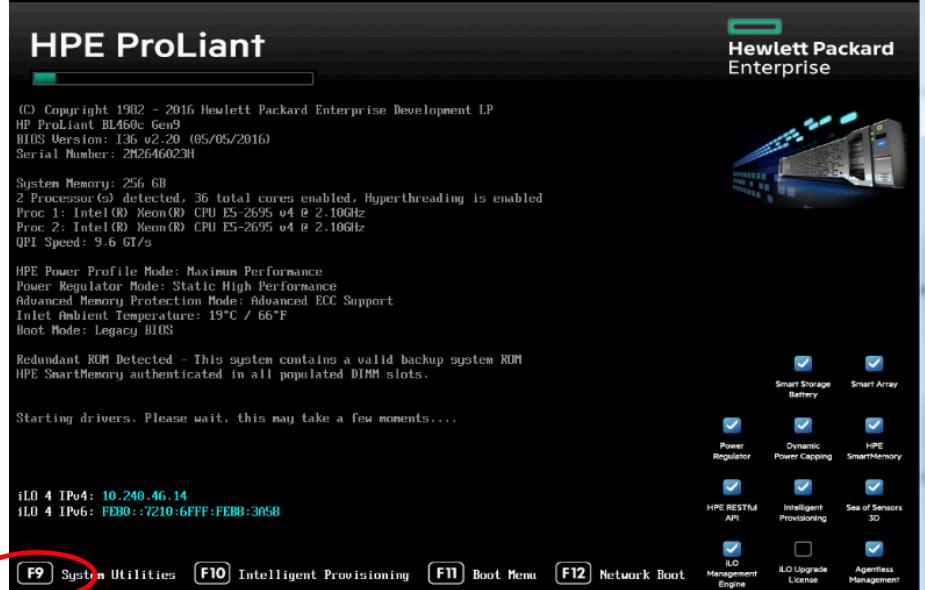
Step	Procedure	Result
1. <input type="checkbox"/>	DP Server XMI IP (SSH): Access the command prompt via DP blade's XMI IP address and log into the server as the " admusr " user.	login: admusr Password: <admusr_password>
2. <input type="checkbox"/>	DP Server XMI IP (SSH): Execute " hpasmcli " command to determine status of hyperthreading for the DP blade.	\$ sudo hpasmcli -s "show ht" Processor hyper-threading is currently enabled. NOTE: Output returned may state " enabled " or " disabled ".
3. <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. 	
4. <input type="checkbox"/>	Launch the Internet Explorer web browser and connect to the DP-iLO GUI interface. NOTE: Always use https:// for iLO GUI access.	 !!! WARNING!!! Verify the DP-iLO IP address before proceeding. The user must login using the DP-iLO IP address only.

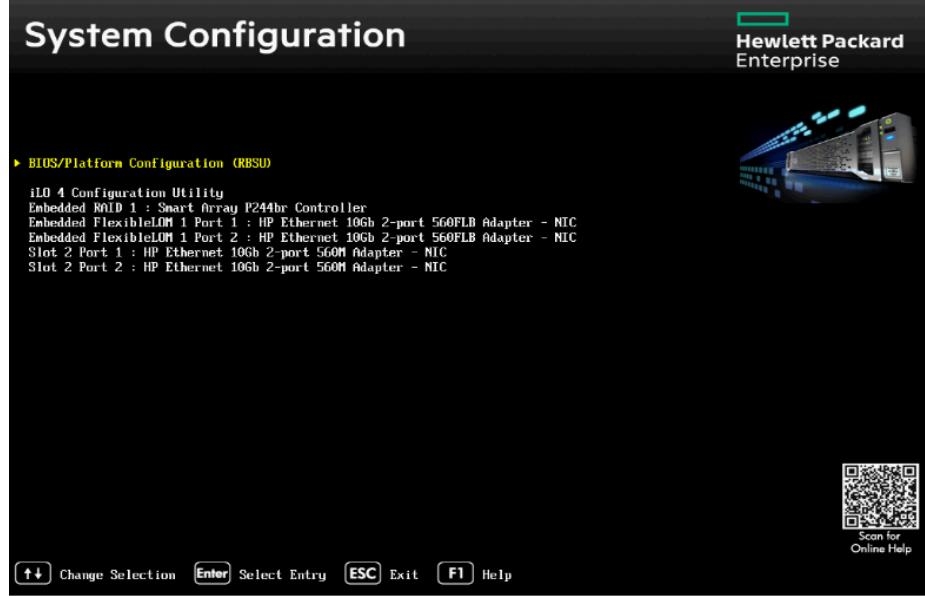
Step	Procedure	Result
5.	<p>The web browser will display a warning message regarding the Security Certificate.</p> <p>NOTE: If presented with the “security certificate” warning screen shown to the right, choose the following option: “Continue to this website (not recommended)”.</p>	
6.	<p>Login to the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

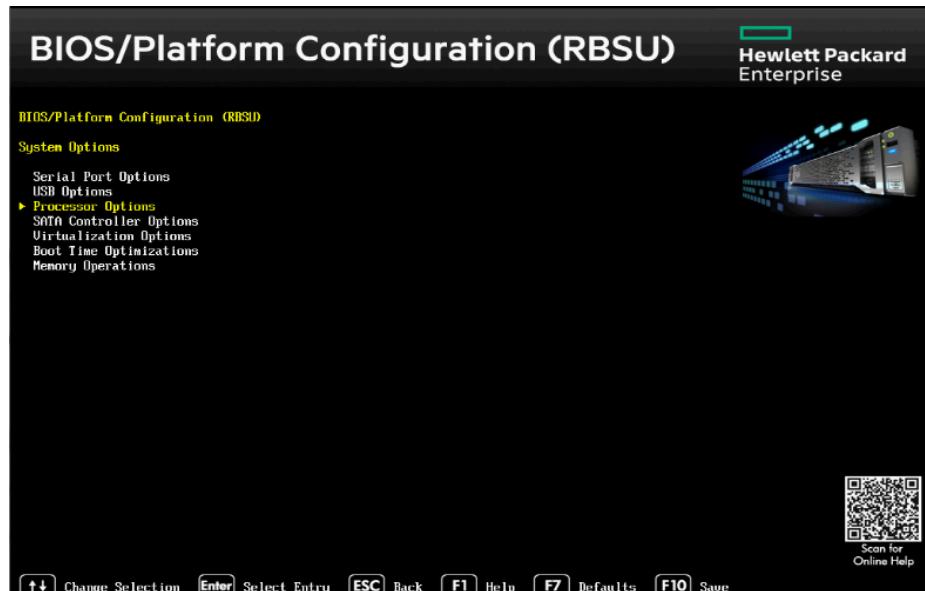
Step	Procedure	Result									
7. <input type="checkbox"/>	<p>The admin GUI is displayed.</p> <p>Select the “Remote Console” tab in the upper left corner of the GUI.</p>	<p>iLO 4 ProLiant BL460c Gen9</p> <p>Information</p> <p>Overview</p> <p>System Information</p> <p>iLO Event Log</p> <p>Integrated Management Log</p> <p>Active Health System Log</p> <p>Diagnostics</p> <p>Location Discovery Services</p> <p>Insight Agent</p> <p>iLO Federation</p> <p>Remote Console</p> <p>Virtual Media</p> <p>Power Management</p> <p>Network</p> <p>Remote Support</p> <p>Administration</p> <p>BL c-Class</p> <p>Active Sessions</p> <table border="1"> <thead> <tr> <th>User</th> <th>IP Address</th> <th>Source</th> </tr> </thead> <tbody> <tr> <td>Local User: Administrator</td> <td>10.75.0.159</td> <td>HTTPS</td> </tr> <tr> <td>Local User: Administrator</td> <td>10.191.212.6</td> <td>HTTPS</td> </tr> </tbody> </table> <p>Status</p> <p>System Health: OK (Green)</p> <p>Server Power: ON (Green)</p> <p>UID Indicator: OFF (Grey)</p> <p>TPM Status: Not Present</p> <p>SD-Card Status: Not Present</p> <p>iLO Date/Time: Thu Mar 2 10:33:30 2017</p> <p>POWER ON UID: OFF ✓</p>	User	IP Address	Source	Local User: Administrator	10.75.0.159	HTTPS	Local User: Administrator	10.191.212.6	HTTPS
User	IP Address	Source									
Local User: Administrator	10.75.0.159	HTTPS									
Local User: Administrator	10.191.212.6	HTTPS									

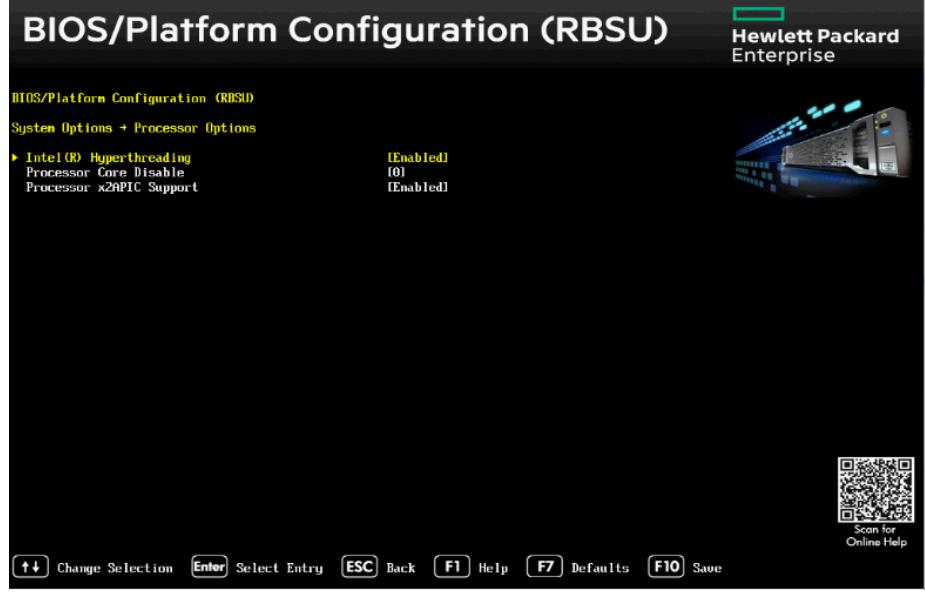
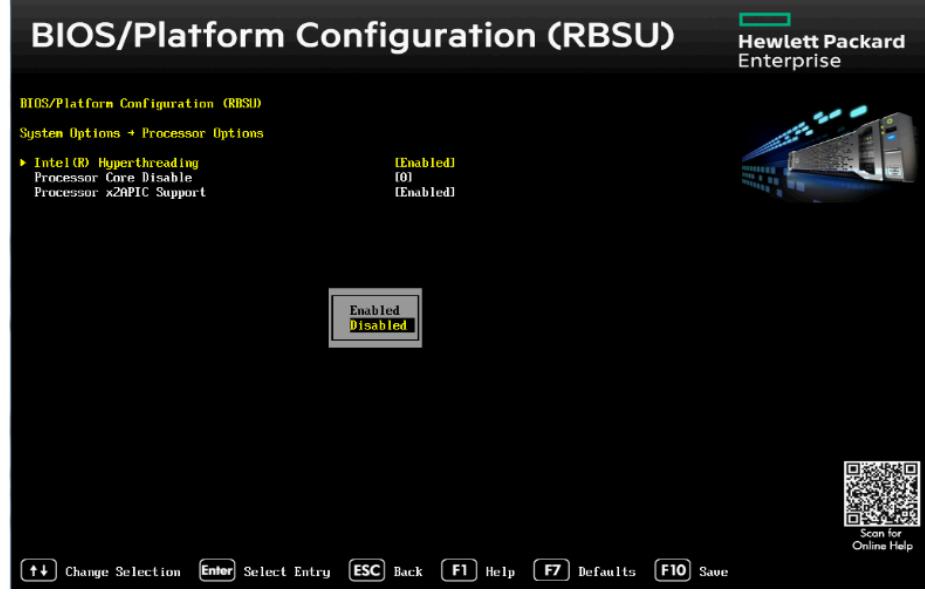
Step	Procedure	Result
8.	<p>The Remote Console Information GUI is displayed</p> <p>Click on the “Remote Console” menu option</p>	 <p>iLO 4 ProLiant BL460c Gen9</p> <p>Remote Console - iLO Integrated</p> <p>Launch Java Hot Keys Security</p> <p>.NET Integrated Remote Console</p> <p>The .NET IRC provides remote access to the system KVM and control of Virtual Power and Media from a single console built on the Microsoft .NET Framework.</p> <p>If you are using Windows 7, 8, 8.1 or 10, a supported version of the .NET Framework is already included in your operating system. The .NET Framework is also available at the Microsoft Download Center. The .NET IRC supports the following versions of the .NET Framework: 3.5 (Full), 4.0 (Full), 4.5 and 4.6.</p> <p>Note for Firefox users: Firefox requires an Add-on to launch .NET applications. Visit the Firefox Add-on website to download the latest version of the Microsoft .NET Framework Assistant.</p> <p>Note for Chrome users: Chrome requires an extension to launch .NET applications. Visit the Chrome Web Store to download the latest version of the Microsoft .NET Framework Assistant.</p> <p>As a workaround select one of the following instead:</p> <ul style="list-style-type: none"> • Integrated .NET IRC application with another browser • Standalone .NET IRC application available from www.hpe.com • iLO Mobile Application to access the iLO Remote Console <p>Java Integrated Remote Console</p> <p>The Java IRC provides remote access to the system KVM and control of Virtual Power and Media from a Java Web Start console or applet-based console. Java IRC requires the availability of Java.</p> <p>Note: On systems with OpenJDK, you must use the Java Applet option with a browser (such as Firefox) that supports a Java plug-in.</p> <p>HPE iLO Mobile App</p> <p>The HPE iLO Mobile application provides access to the remote console of your HPE server from your mobile device. The mobile app interacts directly with the iLO processor on HPE ProLiant servers, providing total control of the server at all times as long as the server is plugged in. You can troubleshoot problems and perform software deployments from almost anywhere.</p> <p>Download, Connect, Manage. Get started today.</p> <p>www.hpe.com/info/mobileapp</p> <p>Learn More</p>
9.	<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>	 <p>iLO 4 ProLiant BL460c Gen9</p> <p>Remote Console - iLO Integrated Remote Console</p> <p>Launch Java Hot Keys Security</p> <p>.NET Integrated Remote Console (NET IRC)</p> <p>The .NET IRC provides remote access to the system KVM and control of Virtual Power and Media from a single console built on the Microsoft .NET Framework.</p> <p>If you are using Windows 7, 8, 8.1 or 10, a supported version of the .NET Framework is already included in your operating system. The .NET Framework is also available at the Microsoft Download Center. The .NET IRC supports the following versions of the .NET Framework: 3.5 (Full), 4.0 (Full), 4.5 and 4.6.</p> <p>Note for Firefox users: Firefox requires an Add-on to launch .NET applications. Visit the Firefox Add-on website to download the latest version of the Microsoft .NET Framework Assistant.</p> <p>Note for Chrome users: Chrome requires an extension to launch .NET applications. Visit the Chrome Web Store to download the latest version of the Microsoft .NET Framework Assistant.</p> <p>As a workaround select one of the following instead:</p> <ul style="list-style-type: none"> • Integrated .NET IRC application with another browser • Standalone .NET IRC application available from www.hpe.com • iLO Mobile Application to access the iLO Remote Console <p>Java Integrated Remote Console (Java IRC)</p> <p>The Java IRC provides remote access to the system KVM and control of Virtual Power and Media from a Java Web Start console or applet-based console. Java IRC requires the availability of Java.</p> <p>Note: On systems with OpenJDK, you must use the Java Applet option with a browser (such as Firefox) that supports a Java plug-in.</p> <p>HPE iLO Mobile App</p> <p>The HPE iLO Mobile application provides access to the remote console of your HPE server from your mobile device. The mobile app interacts directly with the iLO processor on HPE ProLiant servers, providing total control of the server at all times as long as the server is plugged in. You can troubleshoot problems and perform software deployments from almost anywhere.</p> <p>Download, Connect, Manage. Get started today.</p> <p>www.hpe.com/info/mobileapp</p> <p>Learn More</p>

Step	Procedure	Result
10.	<input type="checkbox"/> <p>The iLO Console window is displayed.</p> <p>NOTE: The console window resembles an MS-DOS window but DOES NOT have a scroll-back buffer.</p>	
11.	<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>
12.	<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: It is normal for the Remote Console window to stay blank for up to 3 minutes before initial output appears.</p>

Step	Procedure	Result
13. <input type="checkbox"/>	Access the Server BIOS by pressing F9 key	<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>  <p>The screenshot shows the 'System Utilities' menu with the following options:</p> <ul style="list-style-type: none"> ▶ System Configuration (highlighted in yellow) One-Time Boot Menu Embedded Applications System Information System Health <p>Below these options are two buttons: 'Exit and resume system boot' and 'Reboot the System'. At the bottom, it says 'Select Language' with '(English)' selected, and a QR code with the text 'Scan for Online Help'.</p>
15.	Scroll to BIOS/Platform Configuration	<p>Scroll to BIOS/Platform Configuration and press [ENTER]</p>  <p>The screenshot shows the 'System Configuration' menu with the following options:</p> <ul style="list-style-type: none"> ▶ BIOS/Platform Configuration (RBSU) (highlighted in yellow) iLO 4 Configuration Utility Embedded RAID 1 : Smart Array P244hc Controller Embedded FlexibleLOM 1 Port 1 : HP Ethernet 10Gb 2-port 560FLB Adapter - NIC Embedded FlexibleLOM 1 Port 2 : HP Ethernet 10Gb 2-port 560FLB Adapter - NIC Slot 2 Port 1 : HP Ethernet 10Gb 2-port 560M Adapter - NIC Slot 2 Port 2 : HP Ethernet 10Gb 2-port 560M Adapter - NIC <p>At the bottom, it says 'Change Selection' and 'Select Entry' with 'Enter' highlighted, and a QR code with the text 'Scan for Online Help'.</p>

Step	Procedure	Result
16. <input type="checkbox"/>	Select System Configuration	<p>Scroll to System Configuration and press [ENTER]</p>  <p>The screenshot shows the 'System Utilities' menu. At the top right is the 'Hewlett Packard Enterprise' logo. Below it is a small image of server racks. The menu lists several options: 'System Configuration' (which is highlighted with a blue arrow), 'One-Time Boot Menu', 'Embedded Applications', 'System Information', 'System Health', 'Exit and resume system boot', and 'Reboot the System'. Below these is a 'Select Language' field with 'English' selected. At the bottom of the menu are navigation keys: 'Change Selection', 'Select Entry', 'ESC', 'Exit', 'F1', 'Help', 'F7', and 'Defaults'.</p>
17. <input type="checkbox"/>	Select Processor Options	<p>Select Processor Options option and press [ENTER]</p>  <p>The screenshot shows the 'BIOS/Platform Configuration (RBSU)' menu. At the top right is the 'Hewlett Packard Enterprise' logo. Below it is a small image of server racks. The menu lists 'BIOS/Platform Configuration (RBSU)' and 'System Options'. Under 'System Options', there are several options: 'Serial Port Options', 'USB Options', 'Processor Options' (which is highlighted with a blue arrow), 'SATA Controller Options', 'Virtualization Options', 'Boot Time Optimizations', and 'Memory Operations'. At the bottom of the menu are navigation keys: 'Change Selection', 'Select Entry', 'ESC', 'Back', 'F1', 'Help', 'F7', 'Defaults', and 'F10'.</p>

Step	Procedure	Result
18. <input type="checkbox"/>	Select Hyper threading Options	<p>Select Intel® Hyper threading Options and press [ENTER].</p>  <p>BIOS/Platform Configuration (RBSU)</p> <p>System Options + Processor Options</p> <ul style="list-style-type: none"> ▶ Intel® Hyperthreading <ul style="list-style-type: none"> Processor Core Disable Processor x2APIC Support <p>[Enabled] [0] [Enabled]</p> <p>Change Selection Enter Select Entry ESC Back F1 Help F7 Defaults F10 Save</p>
19. <input type="checkbox"/>	Set hyperthreading to Disabled .	<p>Select Disabled option and press [ENTER].</p>  <p>BIOS/Platform Configuration (RBSU)</p> <p>System Options + Processor Options</p> <ul style="list-style-type: none"> ▶ Intel® Hyperthreading <ul style="list-style-type: none"> Processor Core Disable Processor x2APIC Support <p>[Enabled] [0] [Enabled]</p> <p>Disabled</p> <p>Change Selection Enter Select Entry ESC Back F1 Help F7 Defaults F10 Save</p>

Step	Procedure	Result
20.	<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: Settings are saved and server reboots.</p>
21.	Continue to monitor the server boot process until the screen returns to the login prompt.	
22.	Close the Remote Console window.	

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
1.	<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. 	

Figure 17. iLO Configuration - GEN8: Press [F8] to configure

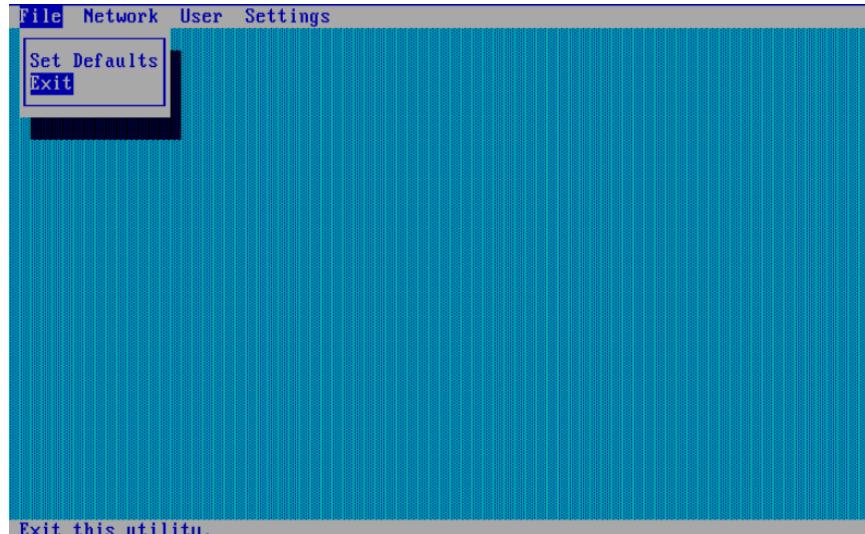
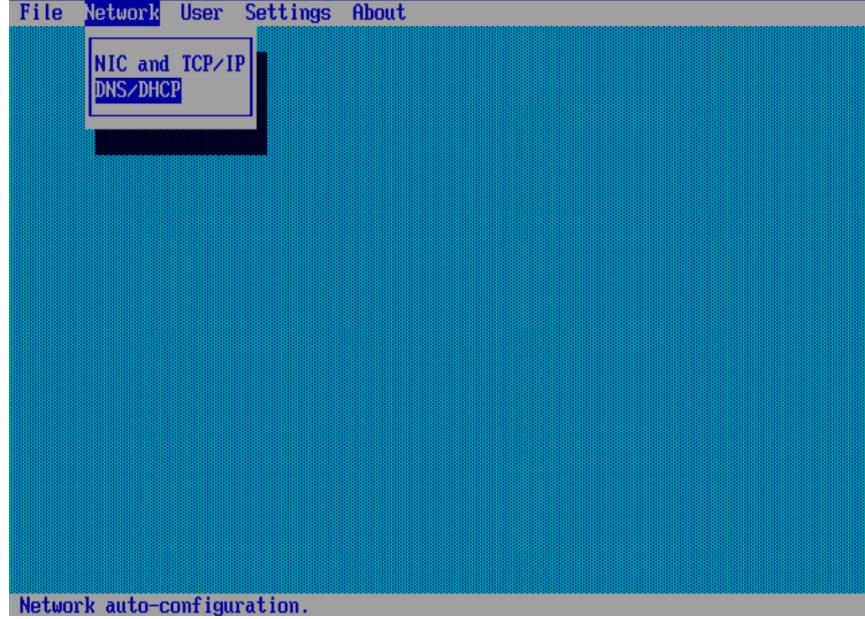
Step	Procedure	Result
2.	<p>After the initial iLO configuration utility screen appears, use the arrow keys to select the Network menu</p>	 <p>The image shows a terminal window with a blue background. At the top is a menu bar with the options: File, Network, User, Settings. A sub-menu is open under the Network option, showing 'Set Defaults' and 'Exit'. At the bottom of the window, there is a line of text: 'Exit this utility...'. The 'Network' option in the main menu is highlighted with a blue box.</p>
3.	<p>Within the Network menu, select DNS/DHCP</p>	 <p>The image shows a terminal window with a blue background. At the top is a menu bar with the options: File, Network, User, Settings, About. A sub-menu is open under the Network option, showing 'NIC and TCP/IP' and 'DNS/DHCP'. At the bottom of the window, there is a line of text: 'Network auto-configuration.' The 'DNS/DHCP' option in the sub-menu is highlighted with a blue box.</p>

Figure 18. iLO Configuration - Initial iLO Configuration Screen**Figure 19.** iLO Configuration - select Network->DNS/DHCP

Step	Procedure	Result
4.	<p>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>	<p>File Network User Settings About</p> <p>Network Autoconfiguration</p> <p>DHCP Enable OFF</p> <p>DNS Name ILOUSE2246N7P</p> <p>[F10]=Save [ESC]=Cancel [F1]=Advanced</p> <p>Hit [SPACE] to change this setting.</p>
5.	<p>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>	<p>File Network User Settings About</p> <p>NIC and TCP/IP</p> <p>DNS/DHCP</p> <p>Network configuration...</p>

Figure 20. iLO Configuration - press [SPACE BAR] to turn DHCP OFF

Figure 21. iLO Configuration - Select NIC and TCP/IP

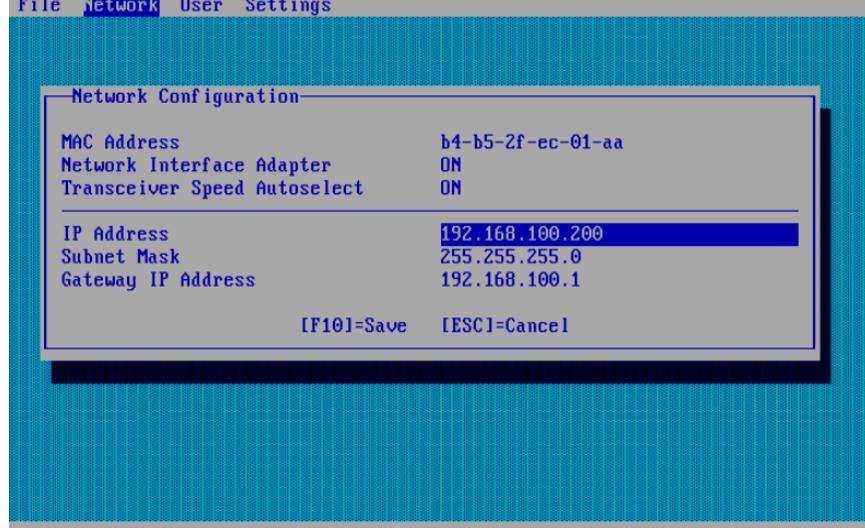
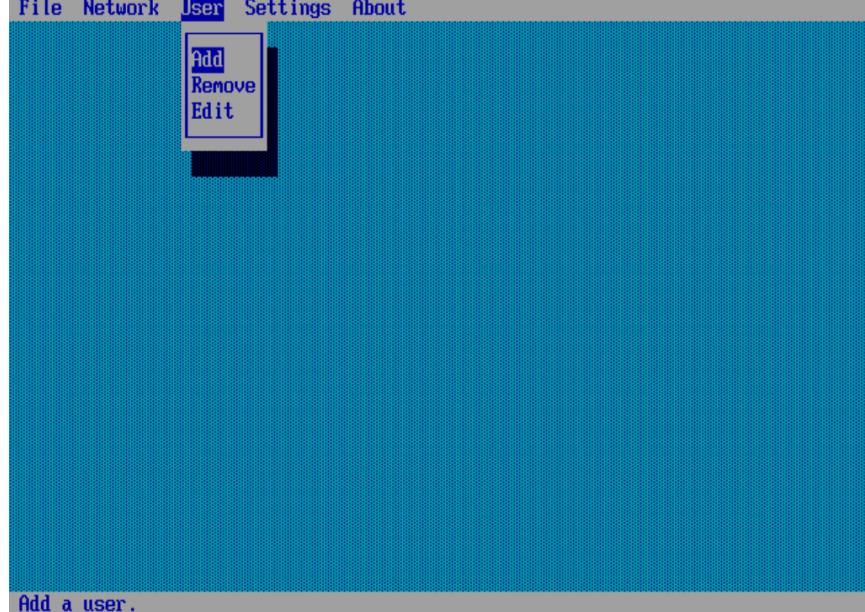
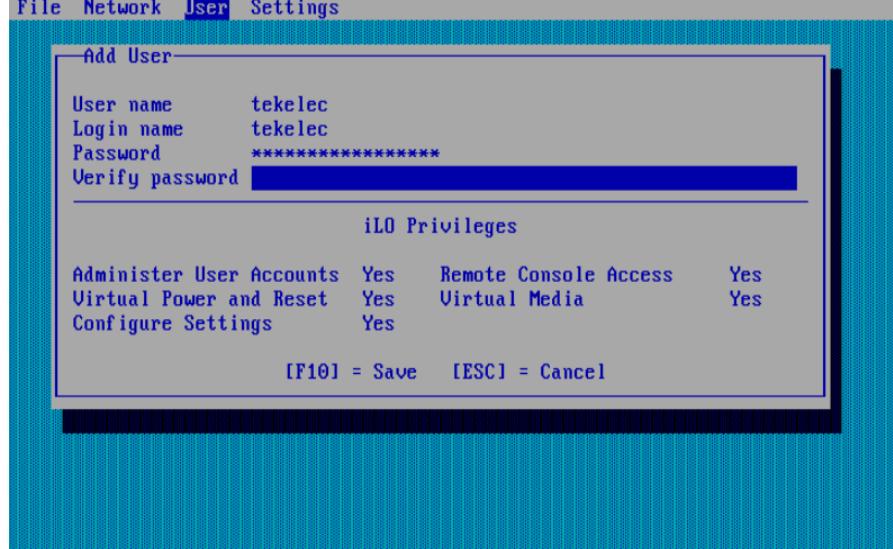
Step	Procedure	Result												
6.	Press [ENTER] if required and select 'NIC and TCP/IP'	 <p>File Network User Settings</p> <p>Network Configuration</p> <table border="1"> <tr><td>MAC Address</td><td>b4-b5-2f-ec-01-aa</td></tr> <tr><td>Network Interface Adapter</td><td>ON</td></tr> <tr><td>Transceiver Speed Autoselect</td><td>ON</td></tr> <tr><td>IP Address</td><td>192.168.100.200</td></tr> <tr><td>Subnet Mask</td><td>255.255.255.0</td></tr> <tr><td>Gateway IP Address</td><td>192.168.100.1</td></tr> </table> <p>[F10]=Save [ESC]=Cancel</p>	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	Gateway IP Address	192.168.100.1
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													
Gateway IP Address	192.168.100.1													
7.	Enter the Network Configuration information for the server. Use the arrow keys to select the field to change	<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>File Network User Settings About</p> <p>Add Remove Edit</p> <p>Add a user.</p>												

Figure 23. iLO Configuration - Select User - Add

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
1.	<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>
2.	<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.

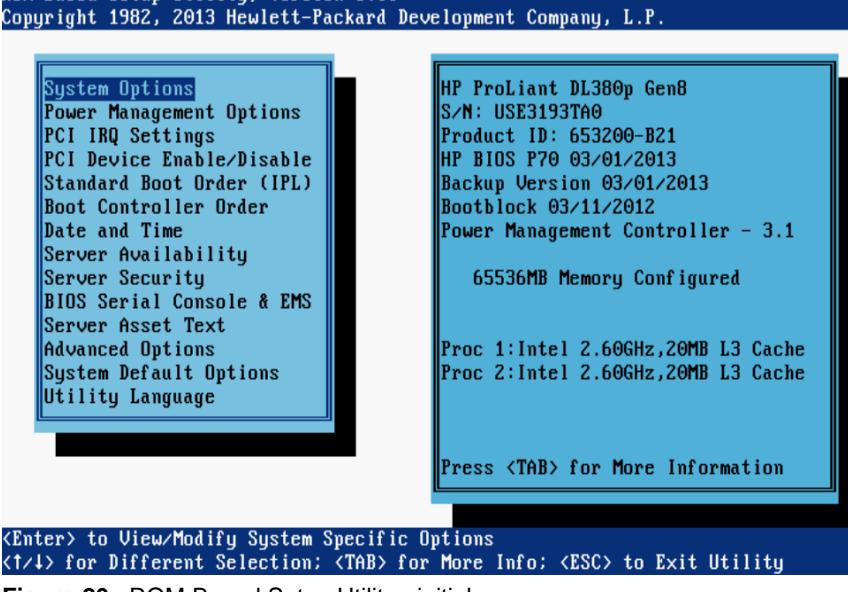
Step	Procedure	Result
1. <input type="checkbox"/>	Select System Options , then Serial Port Options :	<p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p>  <p>System Options</p> <ul style="list-style-type: none"> Power Management Options PCI IRQ Settings 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>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</p> <p>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>

Figure 26. ROM-Based Setup Utility - initial screen

ROM-Based Setup Utility, Version 3.00
Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.

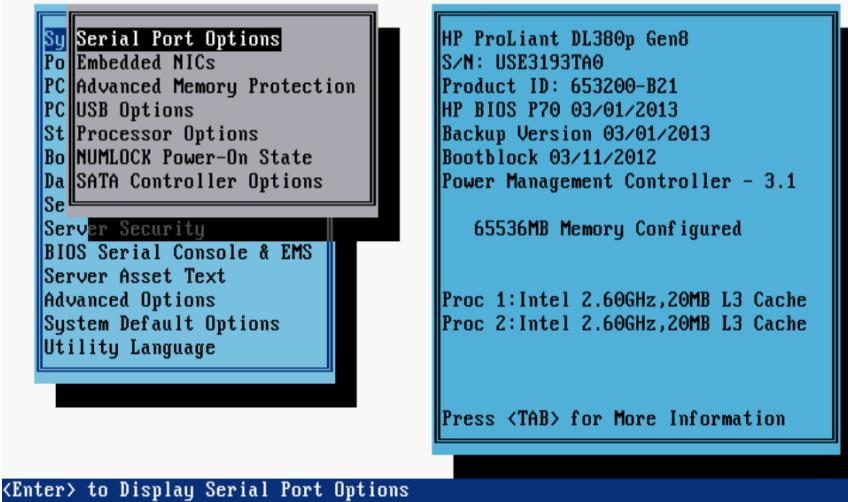


Figure 27. ROM-Based Setup Utility - Serial Port Options

Step	Procedure	Result
2.	Verify the settings for Embedded Serial Port:	<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>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 <↑↓> for Different Configuration Option; <ESC> to Close Menu</p>
3.	Verify the settings for Virtual Serial Port:	<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>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 <↑↓> 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**.

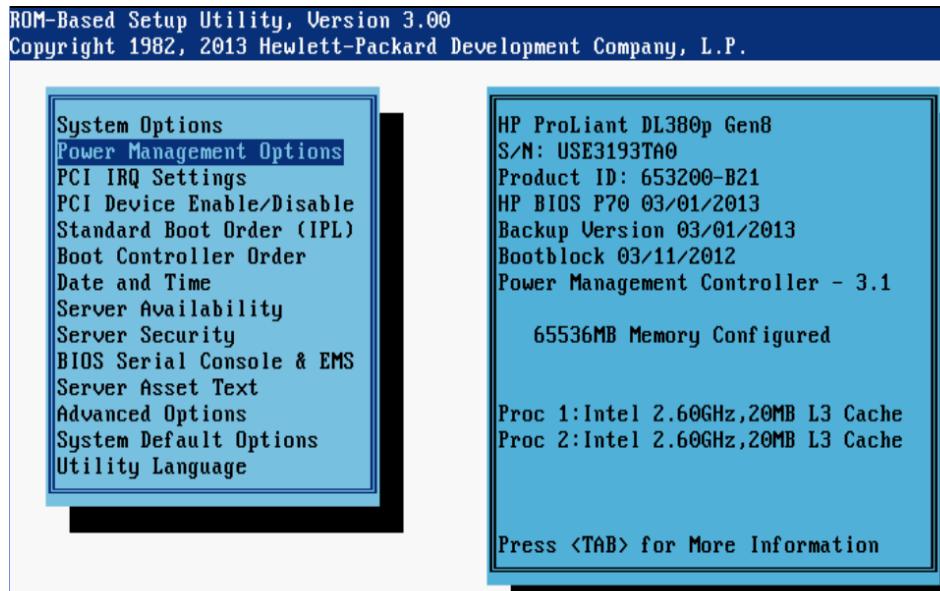
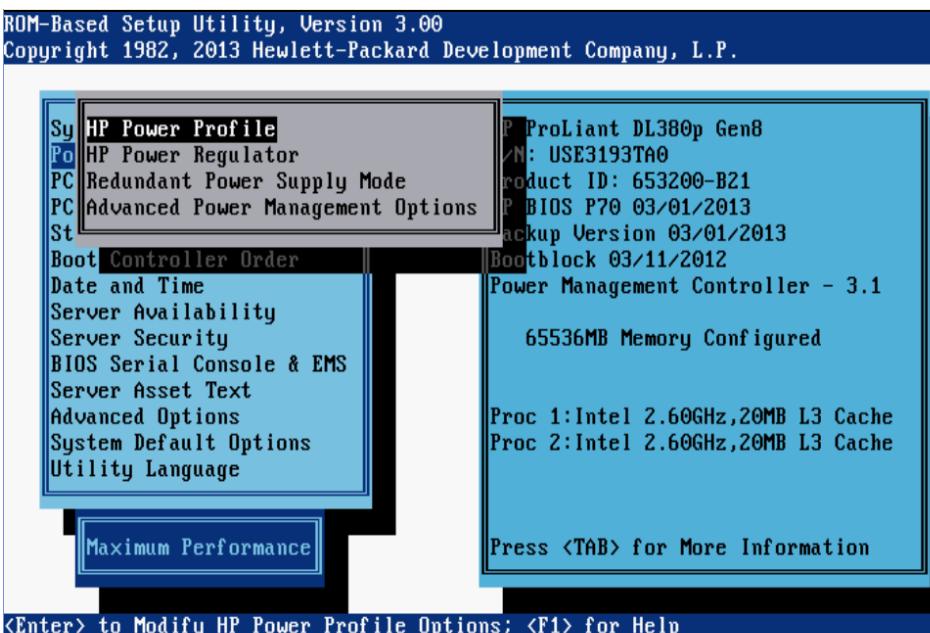
Step	Procedure	Result
1. <input type="checkbox"/>	While in RBSU , verify or set the HP Power Profile	<p>Select “Power Management Options”, then press [ENTER].</p>  <p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p> <p>System Options</p> <ul style="list-style-type: none"> 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>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 <↑↓> for Different Selection; <TAB> for More Info; <ESC> to Exit Utility</p>

Figure 29. RBSU - Select Power Management Options

2.	<p>After pressing [ENTER] you will see several options to choose from such as:</p> <p>HP Power Profile, HP Power Regulator, Redundant Power Supply Mode, Advanced Power Management.</p>  <p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p> <p>HP Power Profile HP Power Regulator Redundant Power Supply Mode Advanced Power Management Options Boot Controller Order Date and Time Server Availability Server Security BIOS Serial Console & EMS Server Asset Text Advanced Options System Default Options Utility Language Maximum Performance</p> <p>ProLiant DL380p Gen8 /N: USE3193TA0 Product ID: 653200-B21 PBIOS 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</p> <p>Press <TAB> for More Information</p> <p><Enter> to Modify HP Power Profile Options; <F1> for Help <↑/↓> for Different Configuration Option; <ESC> to Close Menu</p>
3.	<ul style="list-style-type: none"> • Select HP Power Profile • Verify it is set to Maximum Performance
4.	<p>If not set to Maximum Performance, press [ENTER] and select “Maximum Performance”, then press [ENTER]</p>

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

Prerequisites & Requirements:

Server rebooted and in RBSU

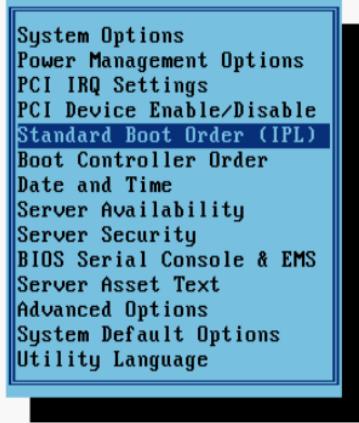
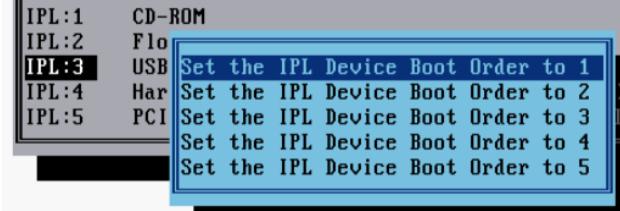
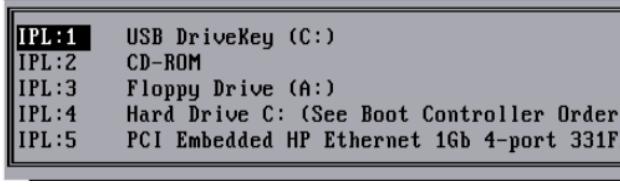
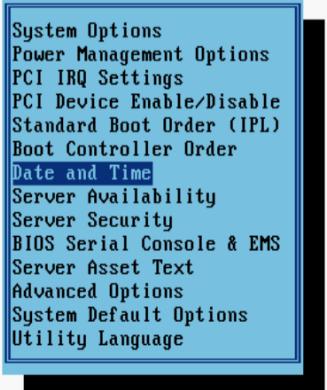
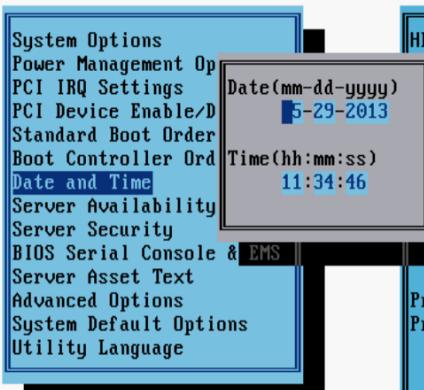
Step	Procedure	Result
1.	<p><input type="checkbox"/> While in RBSU, verify or set the Standard Boot Order. Select Standard Boot Order, then press [ENTER]</p>	<p>Select “Power Management Options”, then press [ENTER].</p> <p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p>  <p>HP ProLiant DL380p Gen8 S/N: USE3256RT1 Product ID: D9N06A 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 the IPL Device Boot Order <↑/↓> for Different Selection: <TAB> for More Info; <ESC> to Exit Utility</p>
2.	<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>LR Adapter Port 1</p>
3.	<p>Verify that IPL:1 is now USB DriveKey (C:)</p>	

Figure 31. Select Standard Boot Order

Figure 32. Select “Set the IP Device Boot Order to 1”

Figure 33. IPL:1 is now USB DriveKey (C:)

Step	Procedure	Result
4.	<p>While in RBSU, set the system Date and Time: Select “Date and Time”, then press [ENTER]</p>	<p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</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 Date and Time <↑/↓> for Different Selection; <TAB> for More Info; <ESC> to Exit Utility</p>
5.	<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>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p>  <p>HP ProLiant DL380p Gen8 S/N: 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>Modify Date and Time <ENTER> to Save Changes, <ESC> to Main Menu</p>

Procedure 17. Verify / Set Server Availability

Prerequisites & Requirements:

Server rebooted and in RBSU

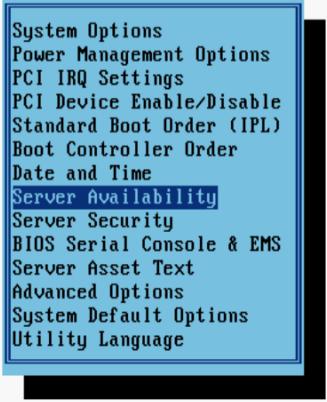
Step	Procedure	Result
1. <input type="checkbox"/>	<p>While in RBSU, set the Server Availability:</p> <p>Select “Server Availability”, then press [ENTER]</p>	<p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p>  <p>HP ProLiant DL380p Gen8 S/N: USE3193TA0 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 Server Availability Options <↑/↓> for Different Selection; <TAB> for More Info; <ESC> to Exit Utility</p>
2.	<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>	
3.	<ul style="list-style-type: none"> ✓ Select ASR Status. ✓ Verify it is set to Enabled. 	

Figure 36. RBSU - Select Server Availability

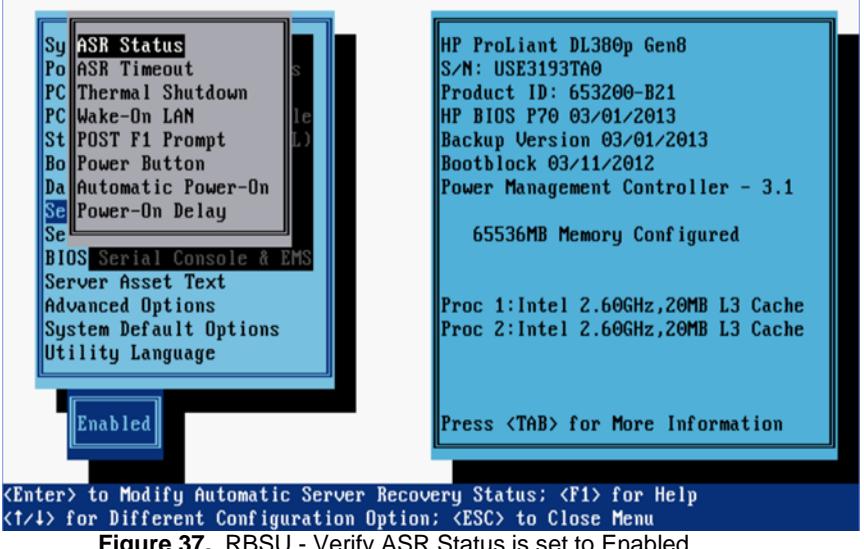
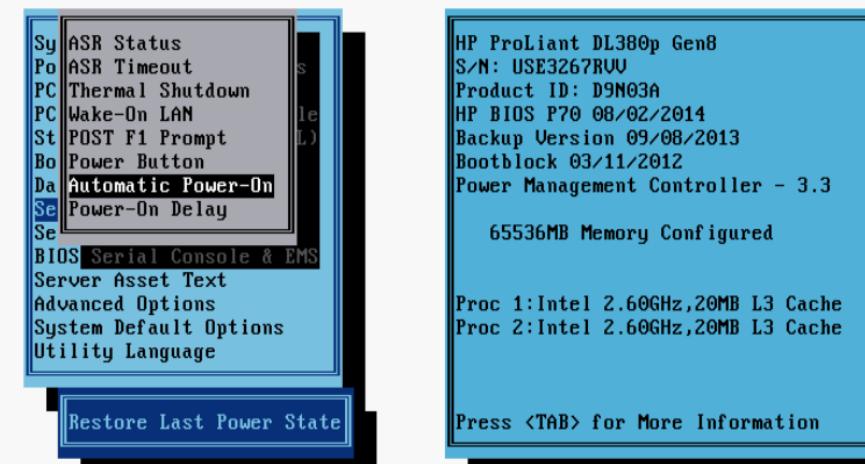
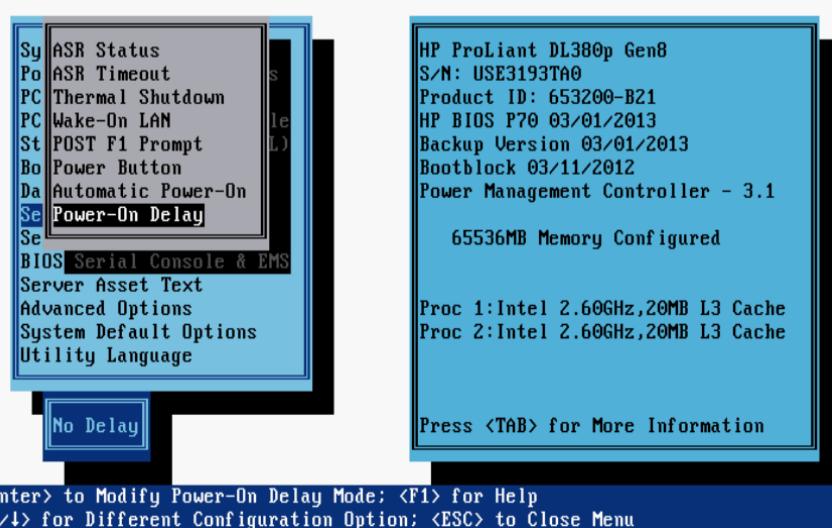
Step	Procedure	Result
4.	<p>If not set to Enabled, press [ENTER] and select “Enabled”, then press [ENTER]</p>	<p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p>  <p>ASR Status ASR Timeout Thermal Shutdown Wake-On LAN POST F1 Prompt Power Button Automatic Power-On Power-On Delay BIOS Serial Console & EMS Server Asset Text Advanced Options System Default Options Utility Language</p> <p>Enabled</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</p> <p>Press <TAB> for More Information</p> <p><Enter> to Modify Automatic Server Recovery Status; <F1> for Help <↑↓> for Different Configuration Option; <ESC> to Close Menu</p>
5.	Select Automatic Power-On	<p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2014 Hewlett-Packard Development Company, L.P.</p>  <p>ASR Status ASR Timeout Thermal Shutdown Wake-On LAN POST F1 Prompt Power Button Automatic Power-On Power-On Delay BIOS Serial Console & EMS Server Asset Text Advanced Options System Default Options Utility Language</p> <p>Restore Last Power State</p> <p>HP ProLiant DL380p Gen8 S/N: USE3267RUU Product ID: D9M03A 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</p> <p>Press <TAB> for More Information</p> <p><Enter> to Modify Automatic Power-On Mode; <F1> for Help <↑↓> for Different Configuration Option; <ESC> to Close Menu</p>
6.	Verify Automatic Power-On is set to Restore Last Power State	

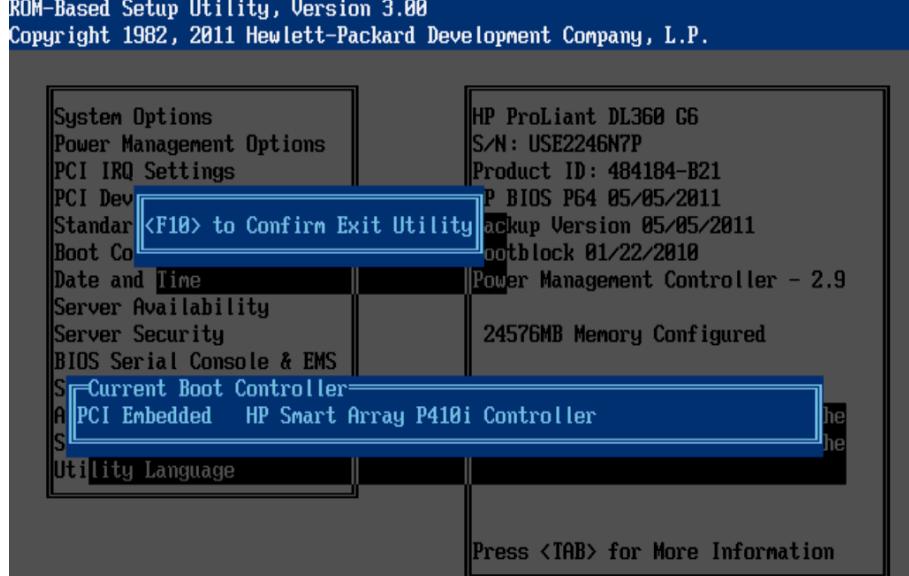
Figure 38. RBSU - Verify Automatic Power-On is set to Enabled

Step	Procedure	Result
7.	If not set to Enabled , press [ENTER] and select “ Enabled ”, then press [ENTER]	
8.	Select Power-On Delay	 <p>The image shows the RBSU (Remote Boot Setup Utility) menu. The 'Power-On Delay' option is highlighted and set to 'No Delay'. The menu also displays system information for an HP ProLiant DL380p Gen8 server, including processor details (Proc 1: Intel 2.60GHz, 20MB L3 Cache, Proc 2: Intel 2.60GHz, 20MB L3 Cache) and memory configuration (65536MB Memory Configured). A message at the bottom of the screen says 'Press <TAB> for More Information'.</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
1.	<p>While in RBSU, set the Server Availability:</p> <p>Select “Server Availability”, then press [ENTER]</p>	 <p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2011 Hewlett-Packard Development Company, L.P.</p> <p>System Options Power Management Options PCI IRQ Settings PCI Dev Standar <F10> to Confirm Exit Utility Boot Co Date and Time Server Availability Server Security BIOS Serial Console & EMS S Current Boot Controller A PCI Embedded HP Smart Array P410i Controller S Utility Language</p> <p>HP ProLiant DL360 G6 S/N: USE2246N7P Product ID: 484184-B21 P BIOS P64 05/05/2011 ackup Version 05/05/2011 ootblock 01/22/2010 Power Management Controller - 2.9 24576MB Memory Configured</p> <p>Press <TAB> for More Information</p> <p><F10> to Exit Utility Any Other Key to Return to Main Menu</p>
2.	<p>Expected Results: 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

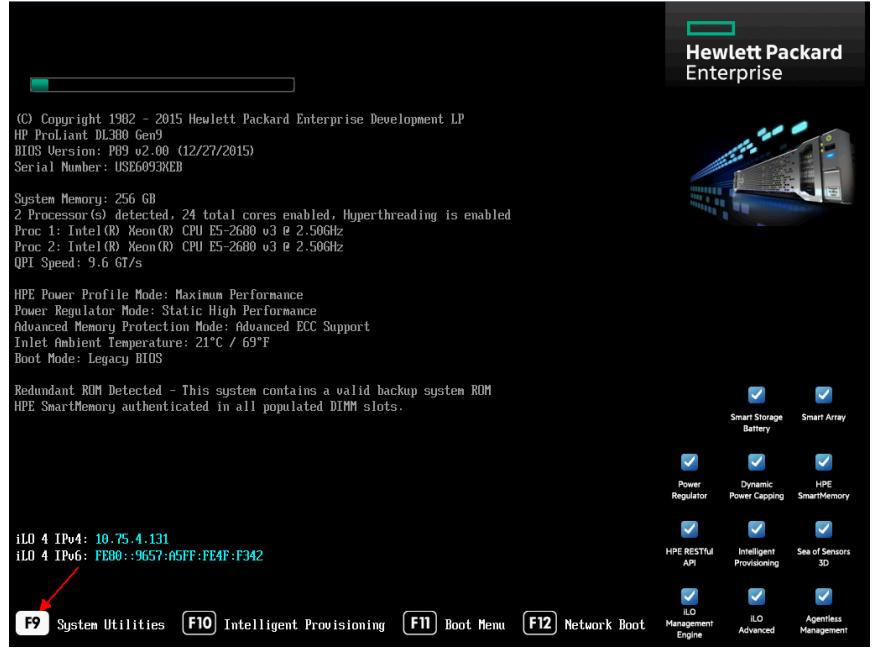
Step	Procedure	Result
1. <input type="checkbox"/>	<p>Reboot the server. You will see an HP screen as shown below. When prompted with the option to Press F9 for System Utilities, do so. Once F9 is pressed, you should see "F9' selected on the screen as shown below:</p>	 <p>The image shows the iLO configuration interface. At the bottom, there is a navigation bar with buttons for F9 System Utilities, F10 Intelligent Provisioning, F11 Boot Menu, and F12 Network Boot. The F9 button is highlighted with a red arrow. The main screen displays server specifications and configuration options. On the right side, there is a grid of checkboxes for various features, all of which are checked.</p> <p>System specifications shown:</p> <ul style="list-style-type: none"> (C) Copyright 1982 - 2015 Hewlett Packard Enterprise Development LP HP ProLiant DL380 Gen9 BIOS Version: P89 v2.00 (12/27/2015) Serial Number: USE6093WEB 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 QPI Speed: 9.6 GT/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 <p>Redundant ROM Detected - This system contains a valid backup system ROM</p> <p>HPE SmartMemory authenticated in all populated DIMM slots.</p> <p>Configuration options (checked):</p> <ul style="list-style-type: none"> Smart Storage Smart Array Power Regulator Dynamic Power Capping HPE SmartMemory HPE RESTful API Intelligent Provisioning Se of Sensors 3D ILO Management Engine ILO Advanced Agentless Management

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

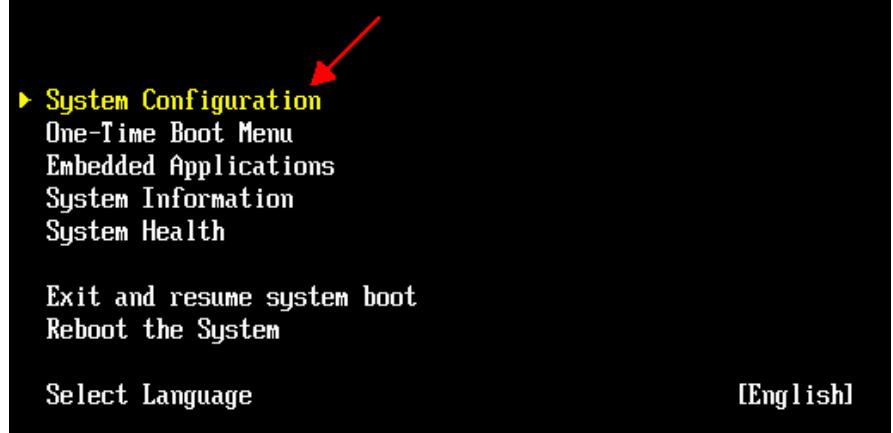
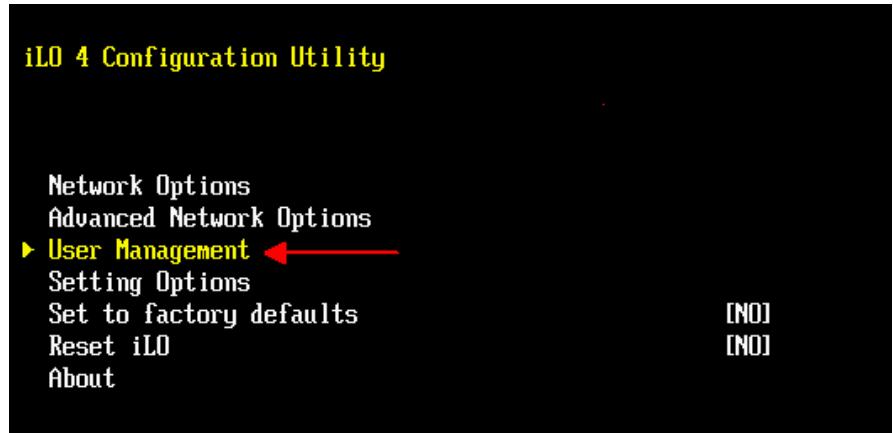
Step	Procedure	Result
2.	<p>After F9 is pressed select System Configuration then select iLO 4 Configuration Utility</p>	 <p>System Configuration One-Time Boot Menu Embedded Applications System Information System Health</p> <p>Exit and resume system boot Reboot the System</p> <p>Select Language [English]</p>
3.	<p>After the initial iLO Configuration Utility screen appears, select User Management</p>	 <p>iLO 4 Configuration Utility</p> <p>Network Options Advanced Network Options User Management Setting Options Set to factory defaults Reset iLO About</p> <p>[NO] [NO]</p>

Figure 42. Gen9: iLO4: Select System Configuration

Figure 43. Gen9: iLO: Select iLO4 Configuration Utility

Step	Procedure	Result										
4.	Select Add User press [ENTER] to add the admusr user.	 <p>System Configuration</p> <p>iLO 4 Configuration Utility</p> <p>User Management</p> <p>► Add User ←</p> <p>Edit/Remove User</p>										
5.	<p>Enter the New User Name, Login Name and Password information for tekelec:</p> <p>New User Name: tekelec Login Name: tekelec Password: tekelec1</p>	 <p>iLO 4 Configuration Utility</p> <p>User Management + Add User</p> <p>New User iLO 4 Privileges:</p> <table> <tbody> <tr><td>Administer User Accounts</td><td>[YES]</td></tr> <tr><td>Remote Console Access</td><td>[YES]</td></tr> <tr><td>Virtual Power and Reset</td><td>[YES]</td></tr> <tr><td>Virtual Media</td><td>[YES]</td></tr> <tr><td>Configure Settings</td><td>[YES]</td></tr> </tbody> </table> <p>New User Information:</p> <p>► New User Name ← [] Login Name ← [] Password ← []</p>	Administer User Accounts	[YES]	Remote Console Access	[YES]	Virtual Power and Reset	[YES]	Virtual Media	[YES]	Configure Settings	[YES]
Administer User Accounts	[YES]											
Remote Console Access	[YES]											
Virtual Power and Reset	[YES]											
Virtual Media	[YES]											
Configure Settings	[YES]											

Figure 45. Gen9: iLO Configuration - Add User

Figure 46. Gen9: iLO Configuration - Add New User Name: tekelec

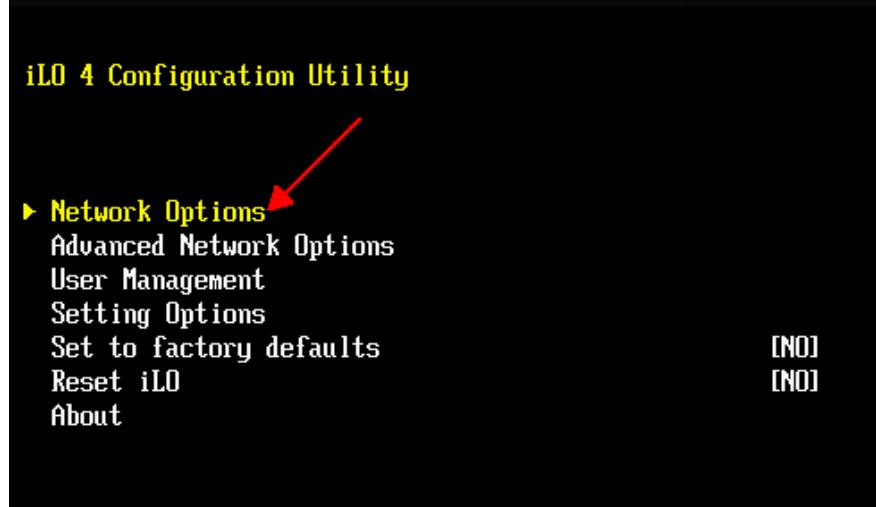
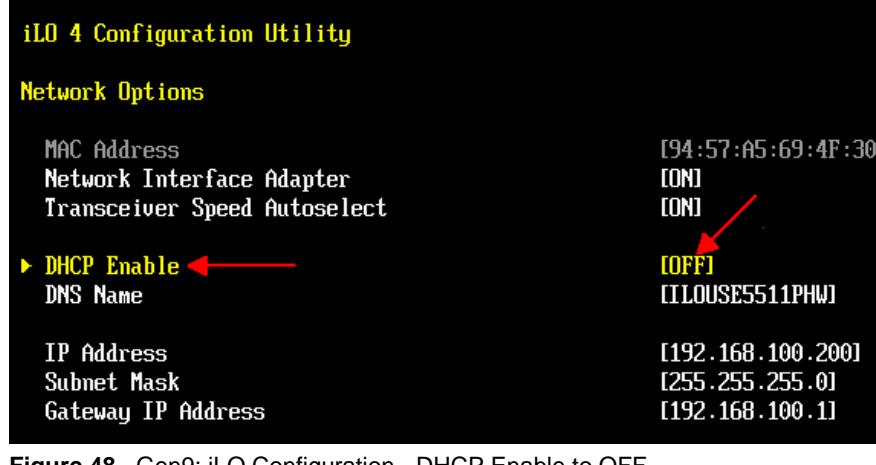
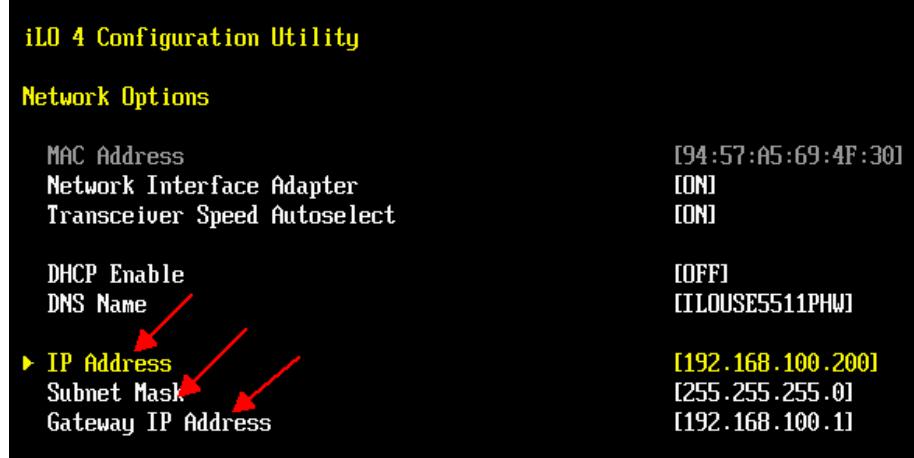
Step	Procedure	Result																
6.	<p>Press [ESC] to go back to the iLO 4 Configuration Utility menu, then select Network Options.</p>	 <p>iLO 4 Configuration Utility</p> <ul style="list-style-type: none"> ▶ Network Options → Advanced Network Options User Management Setting Options Set to factory defaults Reset iLO About <p>[NO] [NO]</p>																
7.	<p>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>	 <p>iLO 4 Configuration Utility</p> <p>Network Options</p> <table border="0"> <tbody> <tr> <td>MAC Address</td> <td>[94:57:A5:69:4F:30]</td> </tr> <tr> <td>Network Interface Adapter</td> <td>[ON]</td> </tr> <tr> <td>Transceiver Speed Autoselect</td> <td>[ON]</td> </tr> <tr> <td>▶ DHCP Enable ←</td> <td>[OFF] →</td> </tr> <tr> <td>DNS Name</td> <td>[(ILOUSE5511PHW)]</td> </tr> <tr> <td>IP Address</td> <td>[192.168.100.200]</td> </tr> <tr> <td>Subnet Mask</td> <td>[255.255.255.0]</td> </tr> <tr> <td>Gateway IP Address</td> <td>[192.168.100.1]</td> </tr> </tbody> </table>	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]
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]																	

Figure 47. Gen9: iLO Configuration - select Network Options

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>  <p>iLO 4 Configuration Utility Network Options</p> <table border="0"> <tbody> <tr> <td>MAC Address</td> <td>[94:57:A5:69:4F:30]</td> </tr> <tr> <td>Network Interface Adapter</td> <td>[ON]</td> </tr> <tr> <td>Transceiver Speed Autoselect</td> <td>[ON]</td> </tr> <tr> <td>DHCP Enable</td> <td>[OFF]</td> </tr> <tr> <td>DNS Name</td> <td>[iLOUSE5511PHW]</td> </tr> <tr> <td>▶ IP Address</td> <td>[192.168.100.200]</td> </tr> <tr> <td>Subnet Mask</td> <td>[255.255.255.0]</td> </tr> <tr> <td>Gateway IP Address</td> <td>[192.168.100.1]</td> </tr> </tbody> </table> <p>Figure 49. Gen9: iLO Configuration - Network Configuration IP, Subnet, Gateway</p>	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]
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]																	

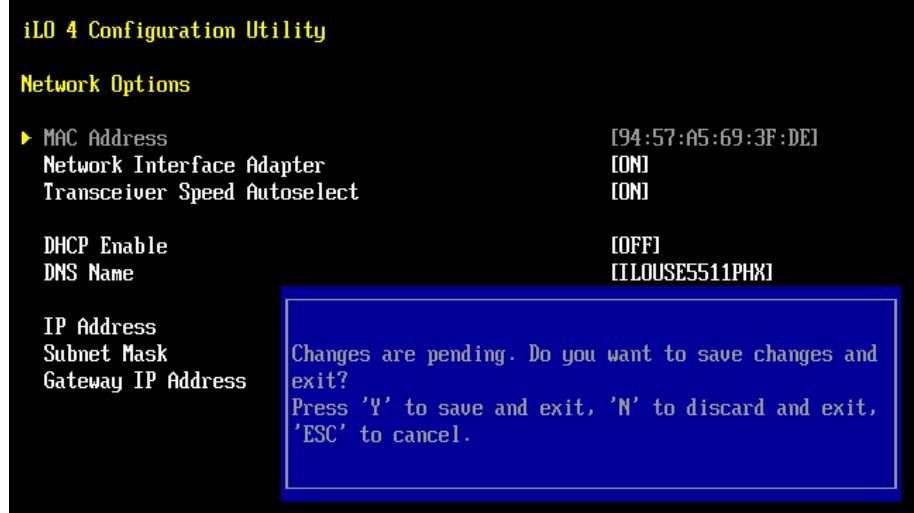
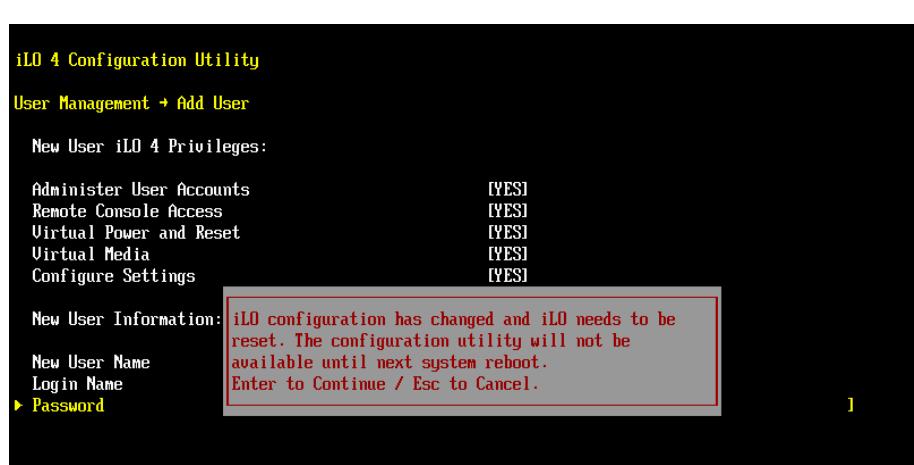
Step	Procedure	Result
9.	Press [F10] to save all changes, ENTER “Y” to confirm then exit out and reboot the server	 <p>iLO 4 Configuration Utility</p> <p>Network Options</p> <ul style="list-style-type: none"> ► MAC Address [94:57:A5:69:3F:DE] Network Interface Adapter [ON] Transceiver Speed Autoselect [ON] DHCP Enable [OFF] DNS Name [iLOUSE5511PHX] IP Address Subnet Mask Gateway IP Address <p>Changes are pending. Do you want to save changes and exit? Press 'Y' to save and exit, 'N' to discard and exit, 'ESC' to cancel.</p>
10.	Repeat this procedure for other ship loose servers for the work order.	 <p>iLO 4 Configuration Utility</p> <p>User Management + Add User</p> <p>New User iLO 4 Privileges:</p> <ul style="list-style-type: none"> Administer User Accounts [YES] Remote Console Access [YES] Virtual Power and Reset [YES] Virtual Media [YES] Configure Settings [YES] <p>New User Information: iLO configuration has changed and iLO needs to be reset. The configuration utility will not be available until next system reboot. Enter to Continue / Esc to Cancel.</p>

Figure 50. Gen9: iLO Configuration - F10 Save Changes

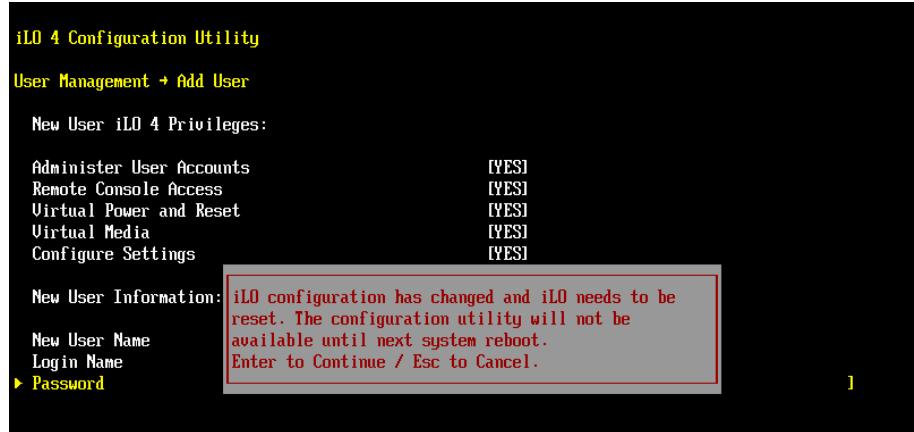


Figure 51. Gen9: iLO Configuration - Change Reboot Message

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

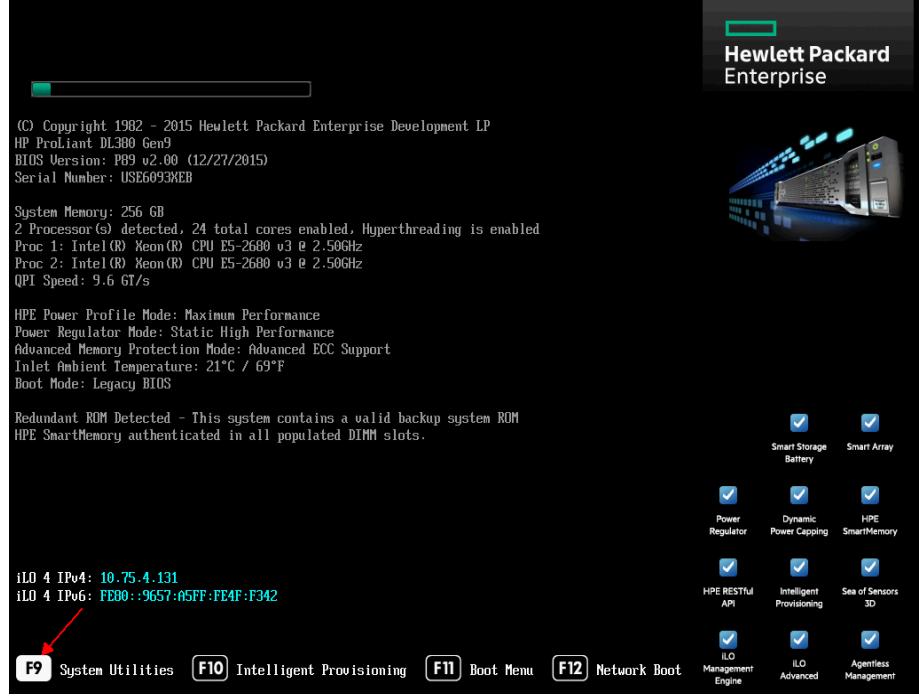
In this section you will be configuring the BIOS on the Rack Mount Server and verifying the processor and memory configuration.

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
1.	<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>Figure 52. Gen9 RBSU - Enter RBSU - “F9 Pressed” indicated in HP Splash screen</p>

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
1. <input type="checkbox"/>	<p>Press Enter to go into the System Configuration menu then select BIOS/Platform Configuration (RBSU).</p>	<p>System Configuration</p> <p>One-Time Boot Menu</p> <p>Embedded Applications</p> <p>System Information</p> <p>System Health</p> <p>Exit and resume system boot</p> <p>Reboot the System</p> <p>Select Language [English]</p> <p>Figure 53. Gen9: Select System Configuration</p> <p>BIOS/Platform Configuration (RBSU)</p> <p>iLO 4 Configuration Utility</p> <p>Embedded RAID : Smart Array P440ar Controller</p> <p>Embedded LOM 1 Port 1 : HP Ethernet 1Gb 4-port 331i Adapter - NIC</p> <p>Embedded LOM 1 Port 2 : HP Ethernet 1Gb 4-port 331i Adapter - NIC</p> <p>Embedded LOM 1 Port 3 : HP Ethernet 1Gb 4-port 331i Adapter - NIC</p> <p>Embedded LOM 1 Port 4 : HP Ethernet 1Gb 4-port 331i Adapter - NIC</p> <p>Embedded FlexibleLOM 1 Port 1 : HP Ethernet 1Gb 4-port 331FLR Adapter - NIC</p> <p>Embedded FlexibleLOM 1 Port 2 : HP Ethernet 1Gb 4-port 331FLR Adapter - NIC</p> <p>Embedded FlexibleLOM 1 Port 3 : HP Ethernet 1Gb 4-port 331FLR Adapter - NIC</p> <p>Embedded FlexibleLOM 1 Port 4 : HP Ethernet 1Gb 4-port 331FLR Adapter - NIC</p> <p>Figure 54. Gen9: Select BIOS/Platform Configuration (RBSU)</p>

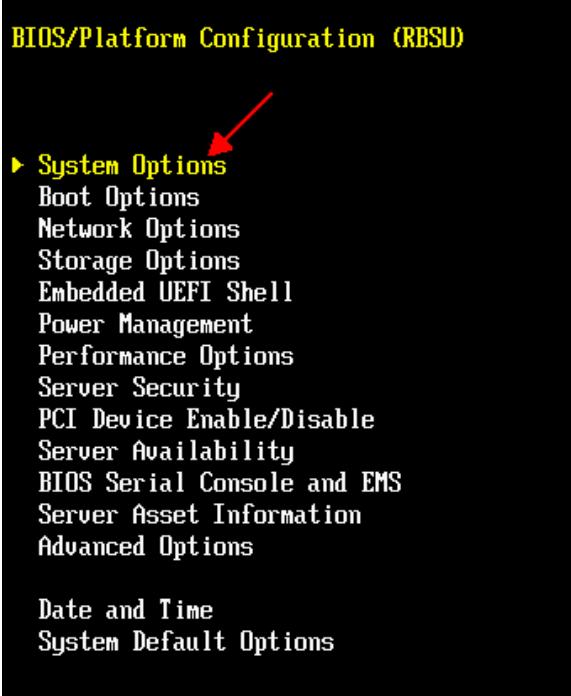
Step	Procedure	Result
2.	Select System Options then select Serial Port Options	 <p>BIOS/Platform Configuration (RBSU)</p> <ul style="list-style-type: none">▶ System Options<ul style="list-style-type: none">Boot OptionsNetwork OptionsStorage OptionsEmbedded UEFI ShellPower ManagementPerformance OptionsServer SecurityPCI Device Enable/DisableServer AvailabilityBIOS Serial Console and EMSServer Asset InformationAdvanced Options Date and TimeSystem Default Options

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

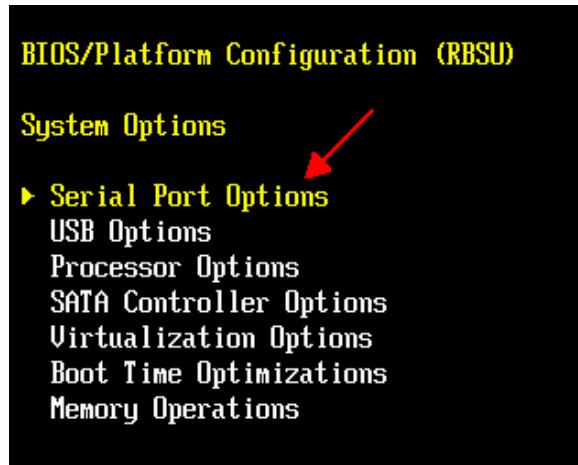
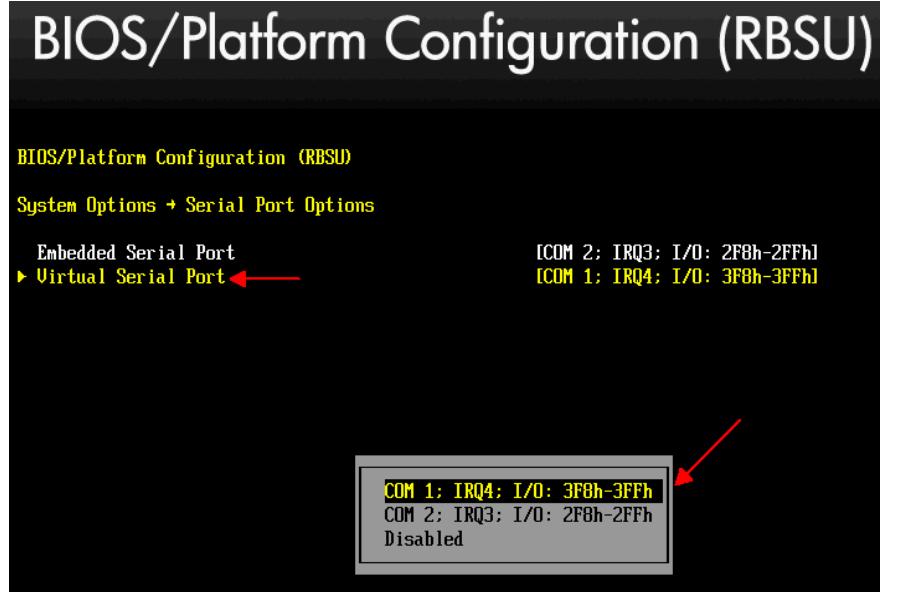


Figure 56. Gen9: ROM-Based Setup Utility - Serial Port Options

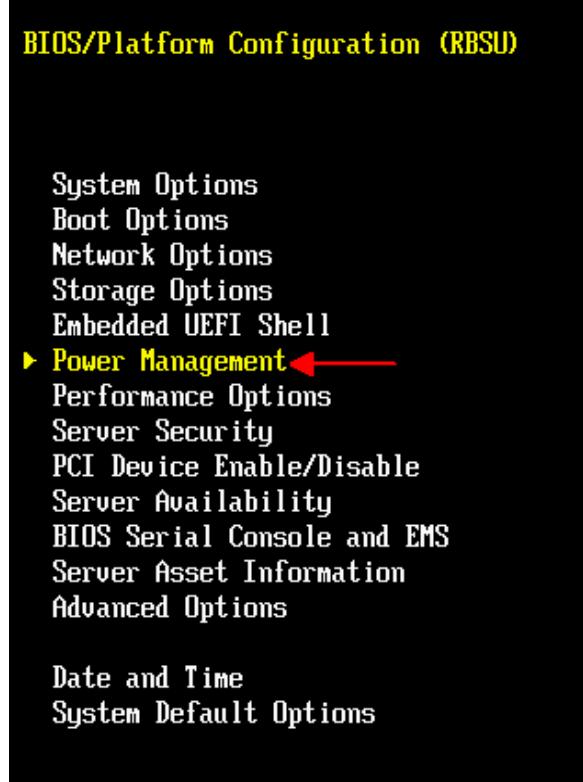
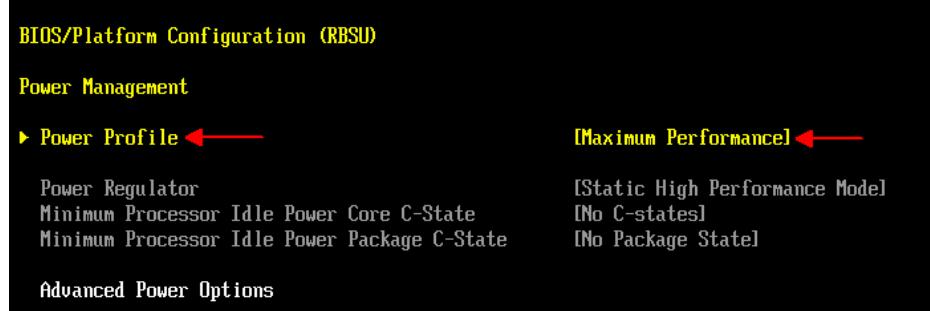
Step	Procedure	Result
3.	<p>Verify the settings for Embedded Serial Port:</p> <p>Select “Embedded Serial Port” and verify it is set for “COM 2”. If it is not set to COM 2, press [ENTER], select COM 2, then [ENTER]</p>	<p>BIOS/Platform Configuration (RBSU)</p> <p>System Options → Serial Port Options</p>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

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
1. <input type="checkbox"/>	<p>While in RBSU, verify/set the HP Power Profile:</p> <p>Select “Power Management”, then press [ENTER]</p>	 <p>BIOS/Platform Configuration (RBSU)</p> <p>System Options 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>
2.	<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>BIOS/Platform Configuration (RBSU)</p> <p>Power Management</p> <p>▶ Power Profile ← [Maximum Performance] ← Power Regulator Minimum Processor Idle Power Core C-State Minimum Processor Idle Power Package C-State Advanced Power Options</p>
3.	<ul style="list-style-type: none"> • Select Power Profile. • Verify it is set to Maximum Performance 	
4.		<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

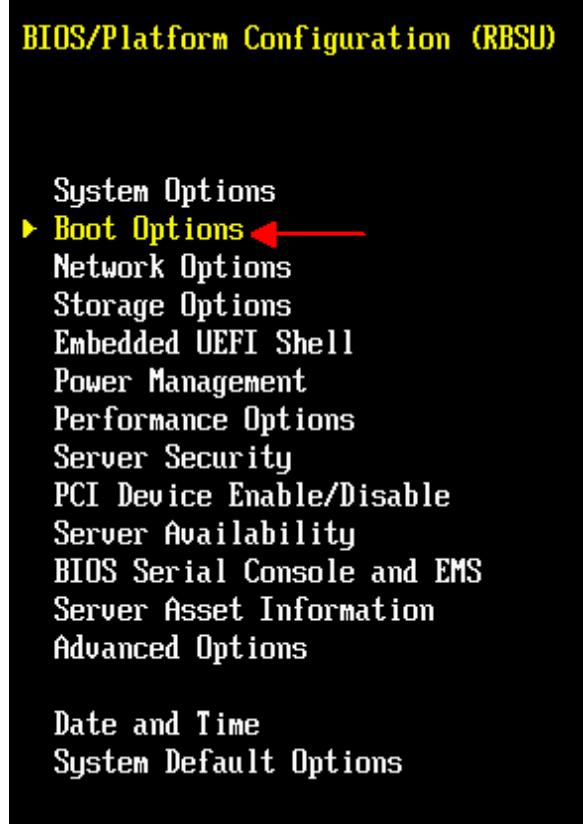
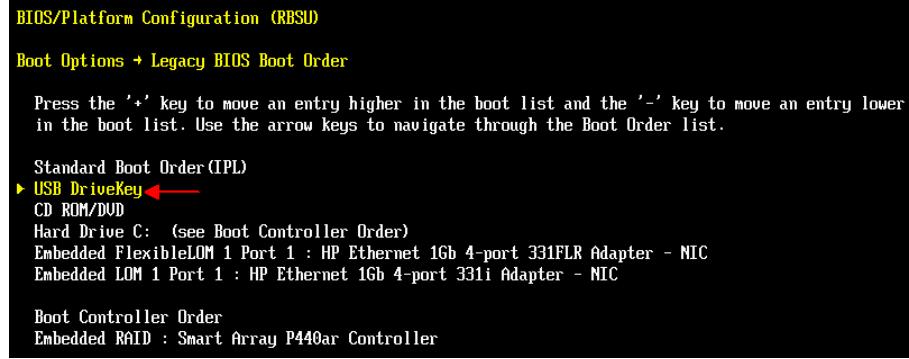
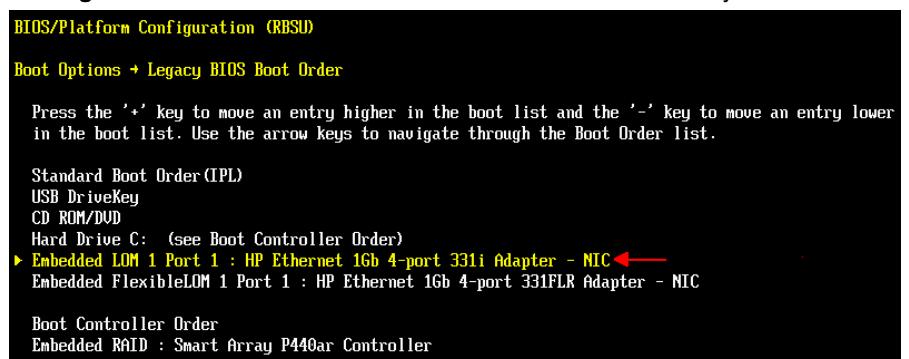
Step	Procedure	Result
1. <input type="checkbox"/>	<p>While in RBSU, verify or set the Legacy BIOS Boot Order, Select Boot Options, and then press [ENTER], then select Legacy BIOS Boot Order then press [ENTER].</p>	 <p>BIOS/Platform Configuration (RBSU)</p> <ul style="list-style-type: none"> System Options ▶ 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 <p>Date and Time</p> <p>System Default Options</p>

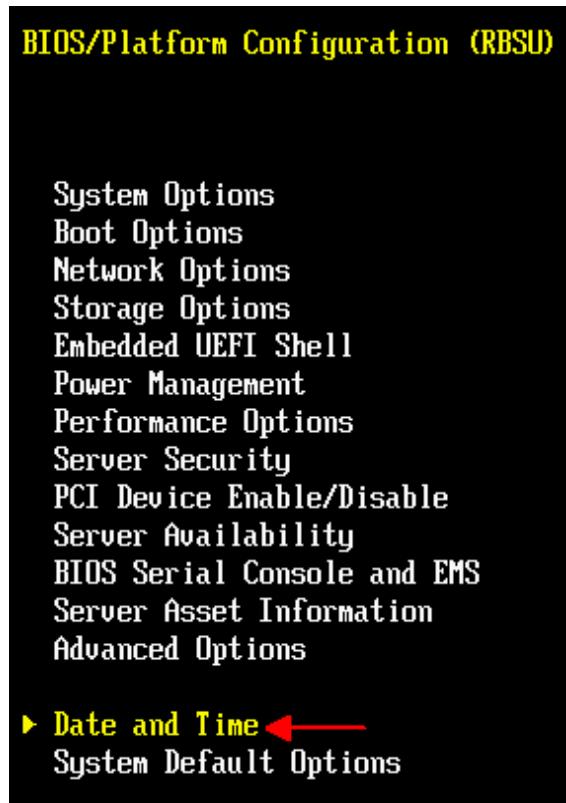
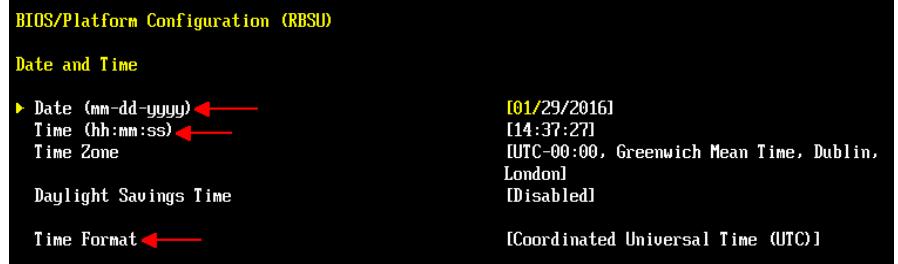
Figure 61. Gen9: Select Boot Options**Figure 62.** Gen9: Select Legacy BIOS Boot Order

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:</p> <p>USB DriveKey</p> <p>CD ROM/DVD</p> <p>Hard Drive C</p> <p>Embedded LOM 1 Port 1</p> <p>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
1.	<p>While in RBSU, set the system Date and Time: Select “Date and Time”, then press [ENTER]</p>	 <p>BIOS/Platform Configuration (RBSU)</p> <ul style="list-style-type: none"> System Options 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 <p>► Date and Time ← System Default Options</p>
2.	<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>BIOS/Platform Configuration (RBSU)</p> <p>Date and Time</p> <p>► Date (mm-dd-yyyy) ← [01/29/2016] Time (hh:mm:ss) ← [14:37:27] Time Zone Daylight Savings Time Time Format ← [Coordinated Universal 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**.

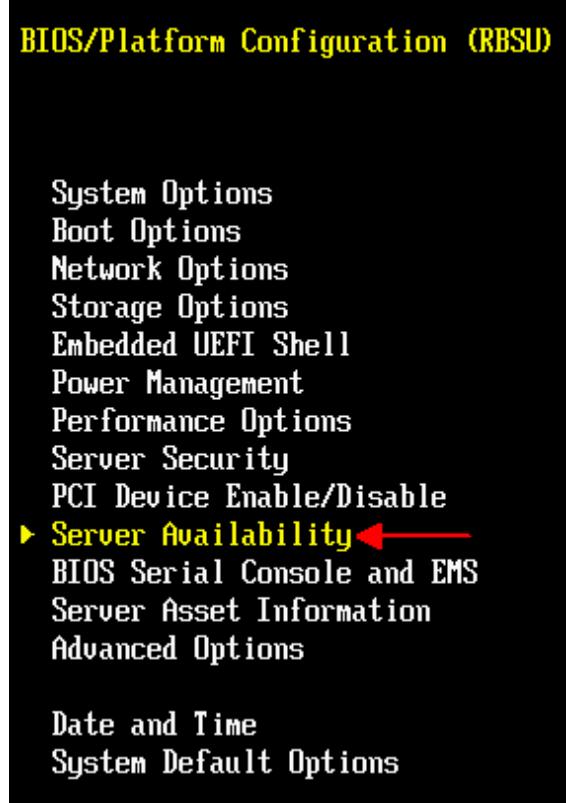
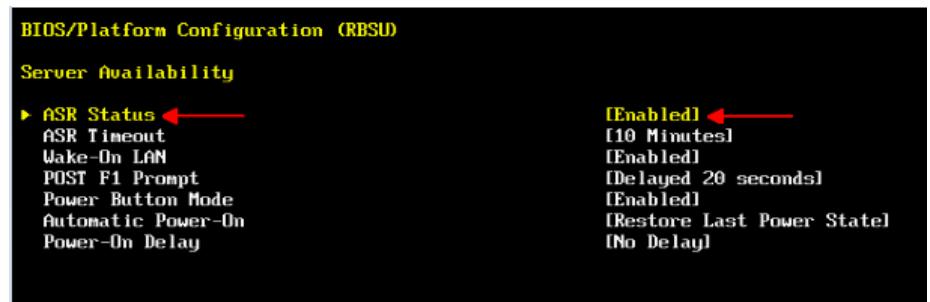
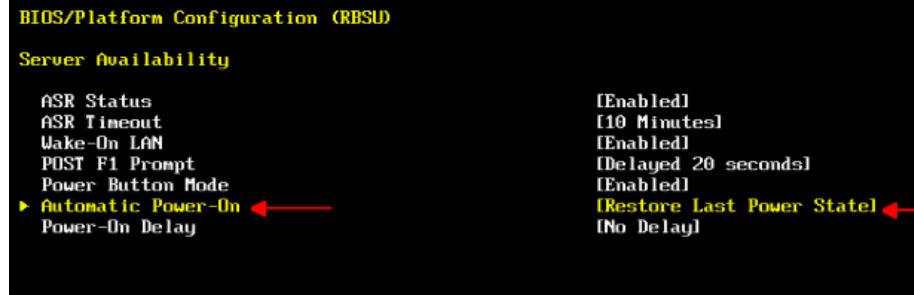
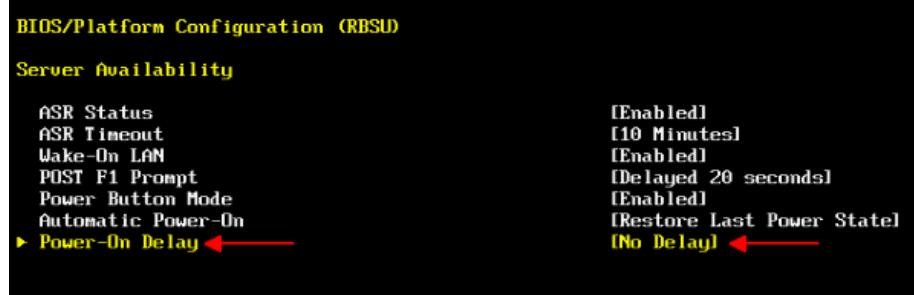
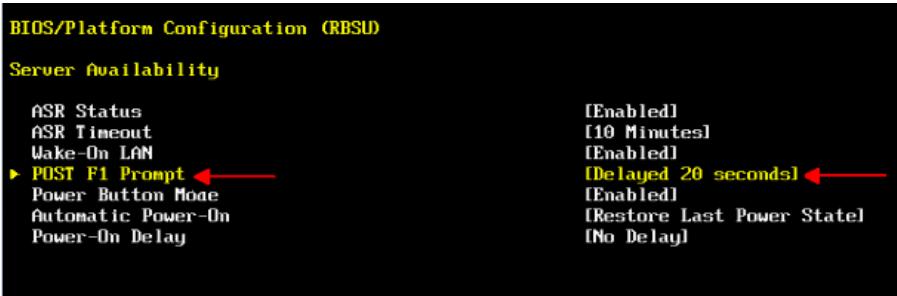
Step	Procedure	Result
1. <input type="checkbox"/>	While in RBSU , set the Server Availability : Select “ Server Availability ”, then press [ENTER]	 <p>BIOS/Platform Configuration (RBSU)</p> <p>System Options Boot Options Network Options Storage Options Embedded UEFI Shell Power Management Performance Options Server Security PCI Device Enable/Disable ► Server Availability ← BIOS Serial Console and EMS Server Asset Information Advanced Options</p> <p>Date and Time System Default Options</p>
2.	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.	
3.	<ul style="list-style-type: none"> • Select ASR Status. • Verify it is set to Enabled 	
4.	If not set to Enabled , press [ENTER] and select “ Enabled ”, then press [ENTER]	 <p>BIOS/Platform Configuration (RBSU)</p> <p>Server Availability</p> <p>► ASR Status ← ASR Timeout Wake-On LAN POST F1 Prompt Power Button Mode Automatic Power-On Power-On Delay</p> <p>[Enabled] ← [10 Minutes] [Enabled] [Delayed 20 seconds] [Enabled] [Restore Last Power State] [No Delay]</p>

Figure 68. Gen9: RBSU - Verify ASR Status is set to Enabled

Step	Procedure	Result
5.	Select Automatic Power-On	 <p>BIOS/Platform Configuration (RBSU)</p> <p>Server Availability</p> <ul style="list-style-type: none"> ASR Status [Enabled] 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] Power-On Delay [No Delay]
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>BIOS/Platform Configuration (RBSU)</p> <p>Server Availability</p> <ul style="list-style-type: none"> ASR Status [Enabled] 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] ▶ Power-On Delay [No Delay]
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]	

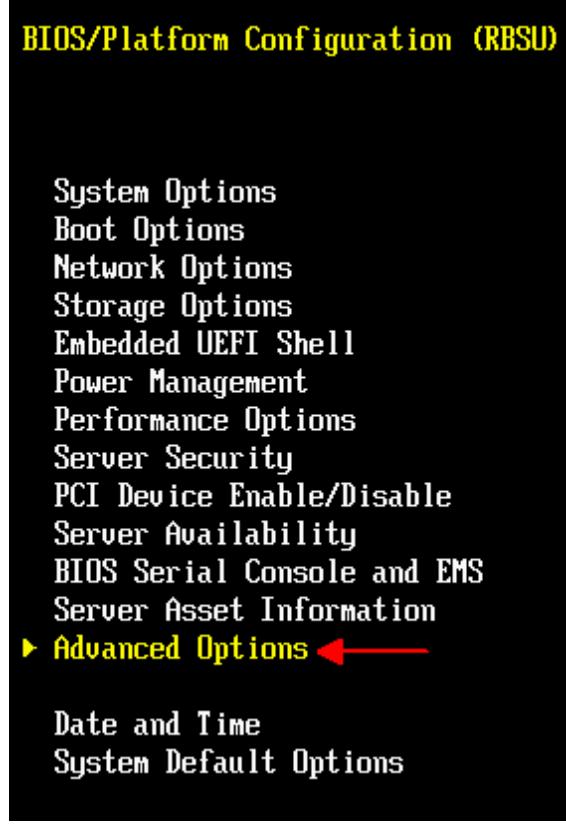
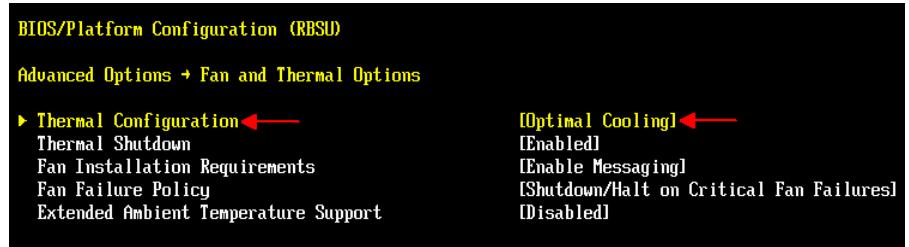
Step	Procedure	Result
11.	Select POST F1 Prompt	 <p>BIOS/Platform Configuration (RBSU) Server Availability ASR Status [Enabled] ASR Timeout [10 Minutes] Wake-On LAN [Enabled] ▶ POST F1 Prompt [Delayed 20 seconds] ← Power Button Mode [Enabled] Automatic Power-On [Restore Last Power State] Power-On Delay [No Delay]</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
1.	<input type="checkbox"/> <p>While in RBSU, set the Advanced Options Select “Advanced Options”, then press [ENTER]</p>	 <p>BIOS/Platform Configuration (RBSU)</p> <p>System Options 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</p> <p>► Advanced Options ←</p> <p>Date and Time System Default Options</p>
		<p>Figure 72. Gen 9: RBSU - Verify Advanced Options</p>
2.		
		<p>After pressing [ENTER] you will see several options to choose from including:</p>
		<p>ROM Selection, Embedded Video Connection, Fan and Thermal Options, Advanced System ROM options.</p>
3.		<p>Select Fan and Thermal Options</p>
4.	<p>Verify Thermal Configuration is set for Optimal Cooling</p>	 <p>BIOS/Platform Configuration (RBSU)</p> <p>Advanced Options → Fan and Thermal Options</p> <p>► Thermal Configuration ← Thermal Shutdown Fan Installation Requirements Fan Failure Policy Extended Ambient Temperature Support</p> <p>(Optimal Cooling) ← (Enabled) (Enable Messaging) (Shutdown/Halt on Critical Fan Failures) (Disabled)</p>
		<p>Figure 73. Gen 9: RBSU - Verify Fan and Thermal Options</p>
5.		<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.

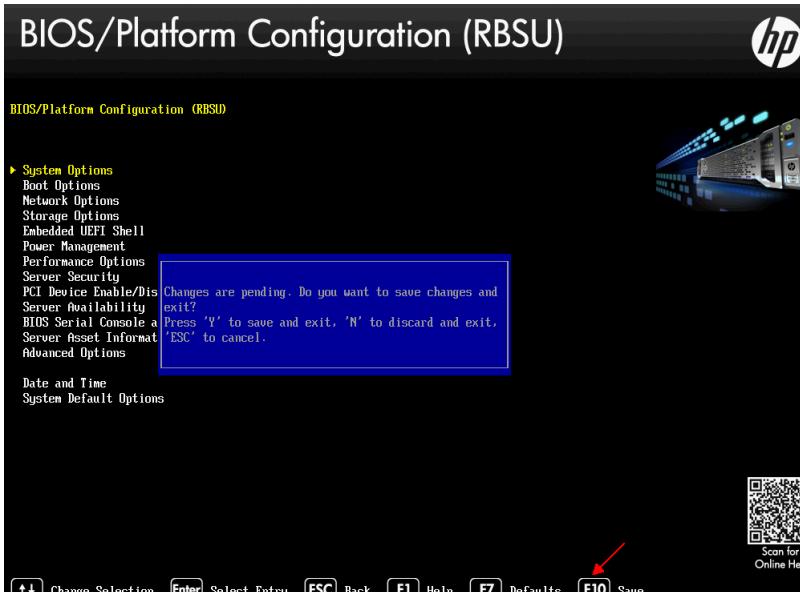
Step	Procedure	Result
1.	<p>Press F10 to save changes then Enter “Y” to confirm changes. the RBSU, press <ESC> and then press <F10> to Confirm Exit Utility</p>	 <p>BIOS/Platform Configuration (RBSU)</p> <p>BIOS/Platform Configuration (RBSU)</p> <ul style="list-style-type: none"> System Options Boot Options Network Options Storage Options Embedded UEFI Shell Power Management Performance Options Server Security PCI Device Enable/Disable Server Availability BIOS Serial Console and EWS Server Asset Information Advanced Options <p>Changes are pending. Do you want to save changes and exit? Press 'Y' to save and exit, 'N' to discard and exit, 'ESC' to cancel.</p> <p>Date and Time</p> <p>System Default Options</p> <p>↑↓ Change Selection Enter Select Entry ESC Back F1 Help F7 Defaults F10 Save</p> <p>Scan for Online Help</p>

Figure 74. Gen9: RBSU - Save Changes and Confirm

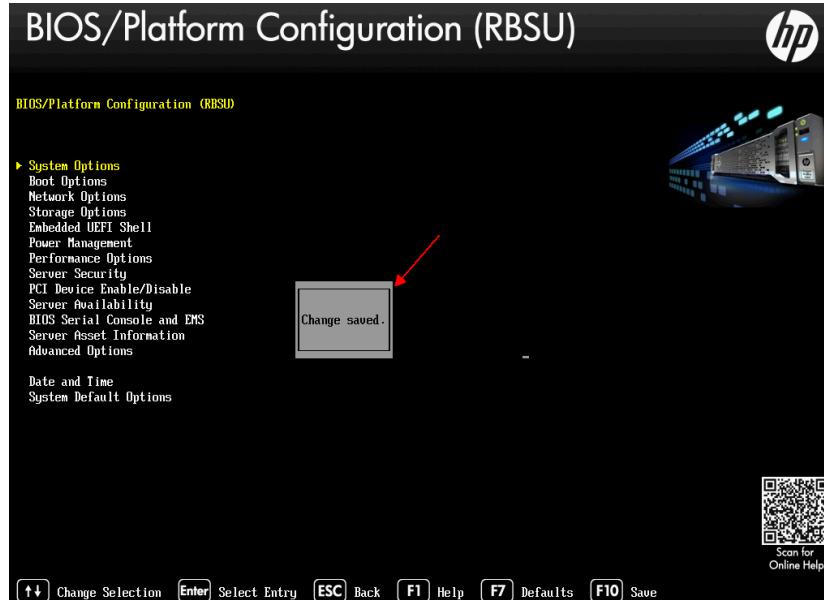


Figure 75. Gen9: RBSU - Changes Saved

Step	Procedure	Result
2.	To Exit the RBSU and System Utilities, press <ESC> and then press [ENTER] to confirm exit.	 <p>System Utilities</p> <p>System Configuration One-Time Boot Menu Embedded Applications System Information System Health</p> <p>Exit and resume system Reboot the System</p> <p>Press ENTER to exit and resume normal boot or ESC to cancel. Enter (EXIT) ESC (CANCEL)</p> <p>Select Language</p> <p>Change Selection Enter Select Entry ESC Exit F1 Help F7 Defaults</p> <p>Scan for Online Help</p>

Figure 76. Gen9: Exit System Utilities

THIS PROCEDURE HAS BEEN COMPLETED

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.

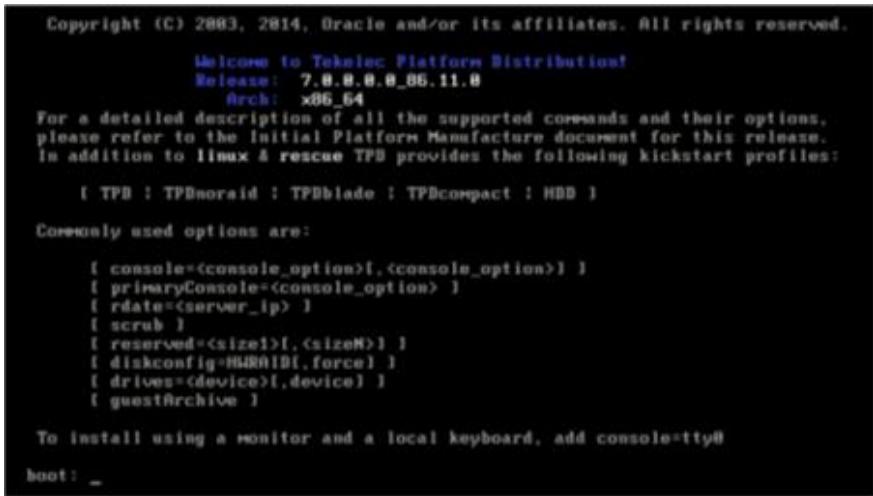
STEP #	Procedure	Description
This section installs the OS IPM.		
Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.		
If this procedure fails, contact ORACLE'S Accessing My Oracle Support (MOS), and ask for ASSISTANCE.		
1. <input type="checkbox"/>	Enter TPD command	<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>  <pre> Copyright (C) 2003, 2014, Oracle and/or its affiliates. All rights reserved. Welcome to Oracle Platform Distribution Release: 7.0.0.0.0_06.11.0 Arch: x86_64 For a detailed description of all the supported commands and their options, please refer to the Initial Platform Manufacturer document for this release. In addition to Linux & rescue TPD provides the following kickstart profiles: [TPB : TPBnoraid : TPBblade : TPBcompact : HDD] Commonly used options are: [console=<console_option>1,<console_option>2] [primaryConsole=<console_option>] [rdate=<server_ip>] [scrub] [reserved=<size1>1,<size2>2] [diskconfig=HWRaid,force] [drives=<device>1,<device>2] [guestArchive] To install using a monitor and a local keyboard, add console=tty0 boot: - </pre>

Figure 77. Boot from Media Screen, TPD 7.0.0.0.0

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.

Note: Text case is important and the command must be typed exactly.

IPM the server by entering the TPD command at the boot prompt. An example command to enter is:

TPDnoraid console=tty0 diskconfig=HWRaid,force

After entering the command to start the installation, the Linux kernel loads as shown in Figure 78.

```
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 : T1288sol : HDD ]  
  
Commonly used options are:  
[ console=<console_option>[ ,<console_option> ] ]  
[ rdate=<server_ip> ]  
[ scrub ]  
[ reserved=<size1>[ ,<sizeN> ] ]  
[ diskconfig=HPC6C,force ]  
[ drives=<device>[ ,device ] ]  
  
To install using a monitor and a local keyboard, add console=tty0  
  
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:

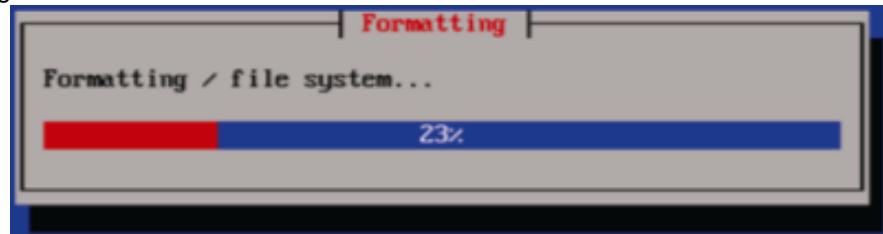


Figure 79. File System Creation Screen

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.

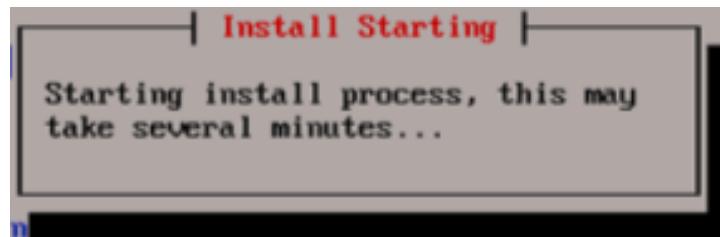
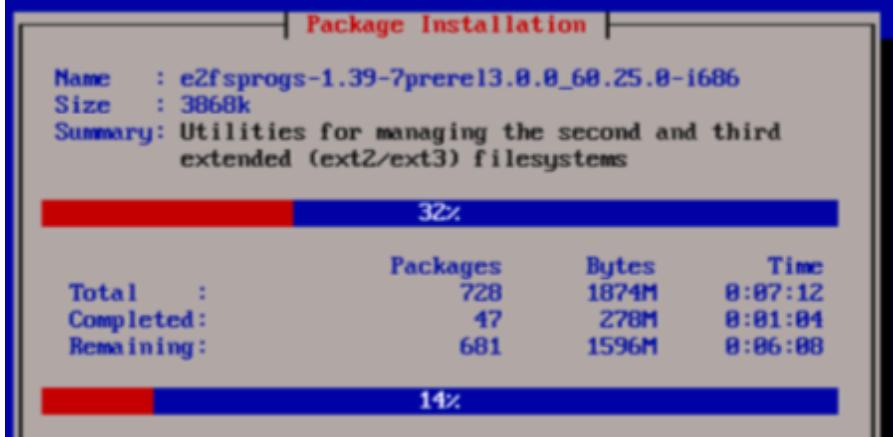
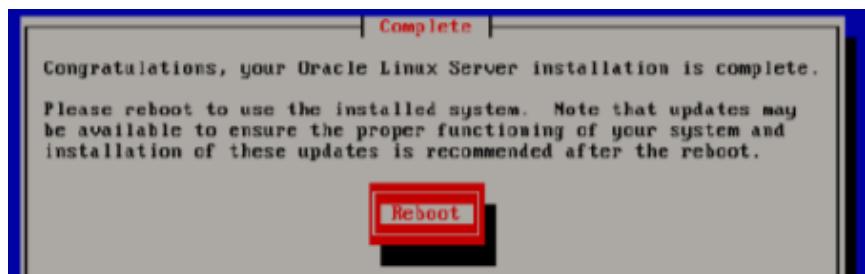
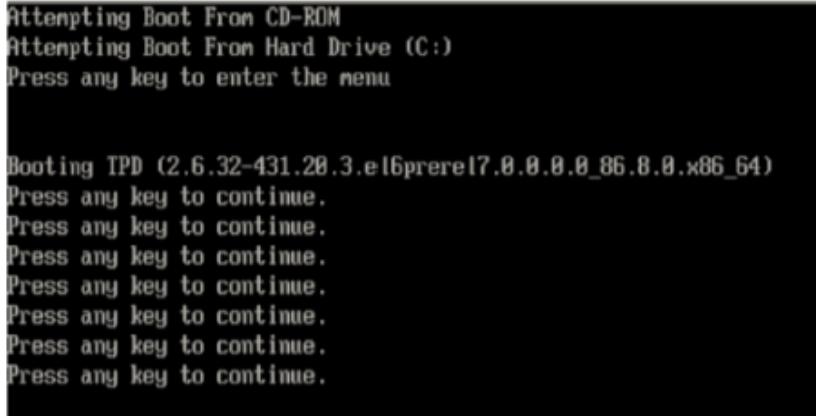


Figure 80. Package Installation Screen

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 text statistics indicate the total number of packages, the number of packages installed, the number remaining, and current and projected time estimates.

STEP #	Procedure	Description
		 <p>Figure 81. Installation Statistics Screen</p>
<p>2. <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> <p></p> <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> <p></p> <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.