

**Oracle® Communications**  
**Diameter Signal Router Full Address**  
**Resolution**  
SDS 8.0 Initial Installation and Configuration Guide  
E79531, Revision 01

May 2017

**ORACLE®**

Oracle® Communications Diameter Signal Router Full Address Resolution, SDS 8.0 Initial Installation and Configuration Guide , Release 8.0.

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## 1. 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 7.3 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 8.0 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 Hardware Site Survey, WI006083, Latest Revision
- [3] DSR 8.0 Base Hardware and Software Installation Procedure 1/2, E76180, Latest Revision
- [4] DSR 8.0 Software Installation & Configuration Procedure 2/2, E76181, Latest Revision

#### Internal (ORACLE Communications Personnel Only)

- [5] HP Solutions Firmware Upgrade Pack Release Notes, 795-000-4xx, latest version (2.2.8 or higher)
- [6] Platform 7.0 Configuration Guide, E53486
- [7] Manufacturing Acceptance Test Procedure Subscriber Data Management Rack Mount Servers, 820-6641-01
- [8] Network Architecture Planning Document, cgbu\_010618, Latest Revision
- [9] TPD Initial Product Manufacture, Software Installation Procedure, Release 7.0+, E53017-09
- [10] Site Survey-Oracle Eagle XG Rackmount Equipment, SS006026

### 1.3 Acronyms

**Table 1 – 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

Acronym	Description
SDS	Subscriber Data Server
SOAM	Systems Operations, Administration & Maintenance
TPD	Tekelec Platform Distribution (Linux OS)
VIP	Virtual IP
XMI	External Management Interface
XML	Exensible Markup Language

## 1.4 Assumptions

This procedure assumes the following;

- The user has reviewed the latest Network Architecture Planning Document (NAPD) [8] 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 [8] 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 [8].
- 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 7.4 of correct version as described in [9].

## 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. 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.

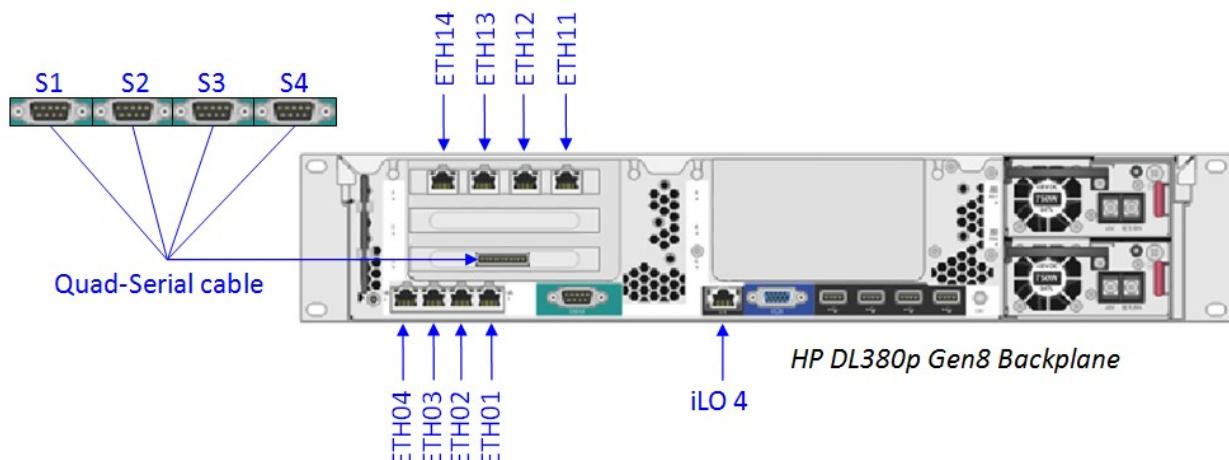


Figure 1 – HP DL380 GEN8: DC (Rear Panel)

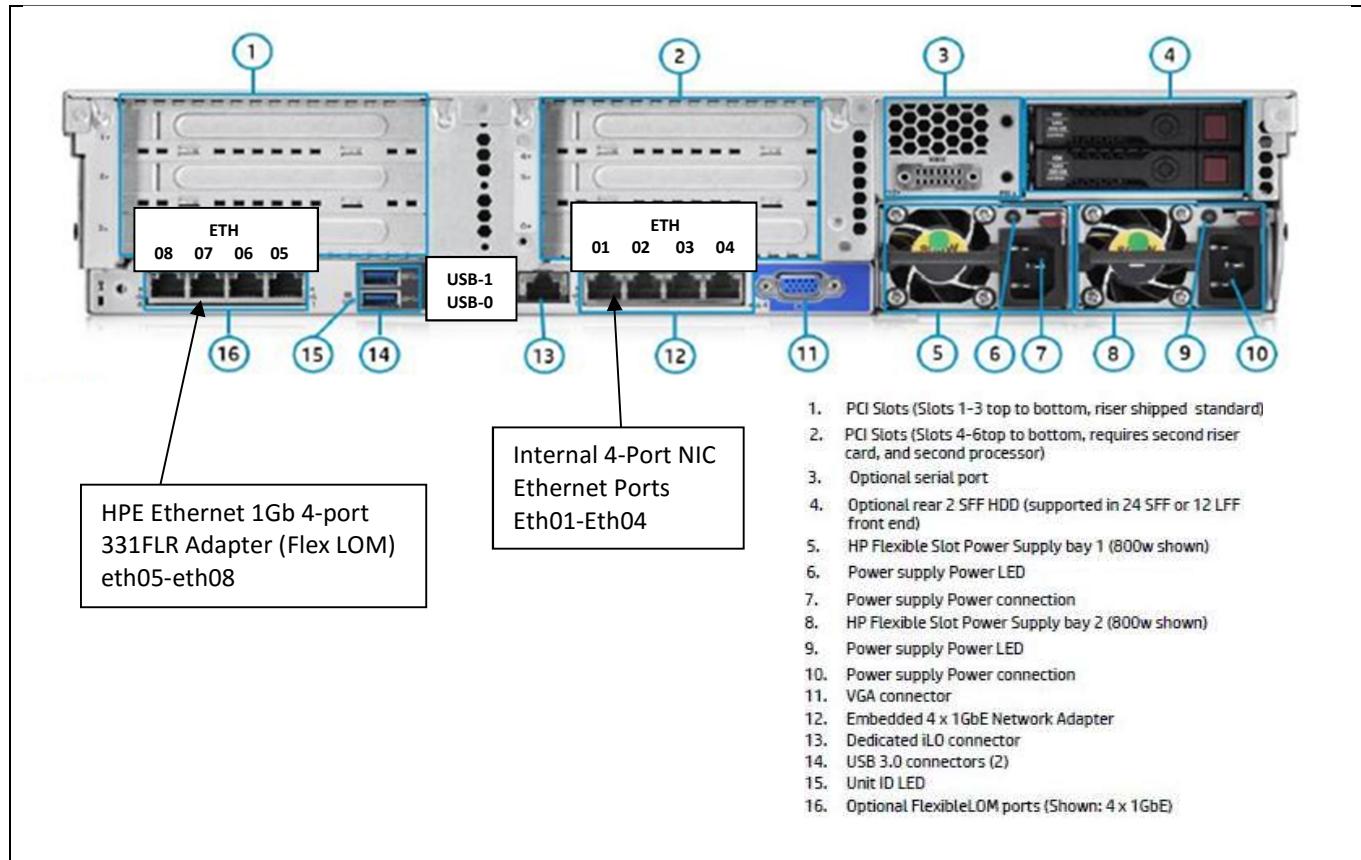


Figure 2 – HP DL380 GEN9: DC (Rear Panel)

## 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 <b>Access Methods</b> shown to the right may be used to initiate and monitor SDS installation.</p> <p><b>NOTE:</b> Methods 3 &amp; 4 may only be used on an 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><b>Method 1)</b></td><td>VGA Monitor and PS2 Keyboard.</td></tr> <tr> <td><input type="checkbox"/></td><td><b>Method 2)</b></td><td>Laptop +  KVM2USB switch.  <a href="http://www.epiphan.com/products/frame-grabbers/kvm2usb/">http://www.epiphan.com/products/frame-grabbers/kvm2usb/</a></td></tr> <tr> <td><input type="checkbox"/></td><td><b>Method 3)</b></td><td>iLO VGA Redirection Window, IE8 (or IE9 with Document Mode "IE8 Standards"), Ethernet cable.            (See <b>Appendix A</b>)</td></tr> <tr> <td><input type="checkbox"/></td><td><b>Method 4)</b></td><td>iLO access via SSH, terminal program, Ethernet cable.</td></tr> </tbody> </table>	<input type="checkbox"/>	<b>Method 1)</b>	VGA Monitor and PS2 Keyboard.	<input type="checkbox"/>	<b>Method 2)</b>	Laptop +  KVM2USB switch. <a href="http://www.epiphan.com/products/frame-grabbers/kvm2usb/">http://www.epiphan.com/products/frame-grabbers/kvm2usb/</a>	<input type="checkbox"/>	<b>Method 3)</b>	iLO VGA Redirection Window, IE8 (or IE9 with Document Mode "IE8 Standards"), Ethernet cable. (See <b>Appendix A</b> )	<input type="checkbox"/>	<b>Method 4)</b>	iLO access via SSH, terminal program, Ethernet cable.
<input type="checkbox"/>	<b>Method 1)</b>	VGA Monitor and PS2 Keyboard.											
<input type="checkbox"/>	<b>Method 2)</b>	Laptop +  KVM2USB switch. <a href="http://www.epiphan.com/products/frame-grabbers/kvm2usb/">http://www.epiphan.com/products/frame-grabbers/kvm2usb/</a>											
<input type="checkbox"/>	<b>Method 3)</b>	iLO VGA Redirection Window, IE8 (or IE9 with Document Mode "IE8 Standards"), Ethernet cable. (See <b>Appendix A</b> )											
<input type="checkbox"/>	<b>Method 4)</b>	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 7.3.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 7.3.x is *HP Solutions Firmware Upgrade Pack 2.2.9 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 7.0.x minimum of HP FUP 2.2.9 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 Service Pack for ProLiant (SPP) firmware USB image
- HP MISC Firmware ISO image

Refer to the Release Notes of the [5] *HP Solutions Firmware Upgrade Pack Release Notes, Release 2.x.x, (Min 2.2.9)* to determine specific firmware versions needed.

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

## 2.6 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).

### Procedure 1. Configure the CMOS Clock, BIOS Settings, and iLO IP Address and Upgrade Firmware

<b>S</b> <b>T</b> <b>E</b> <b>P</b> <b>#</b>	<p>The following procedure explains the steps needed to configure the CMOS Clock, BIOS Settings, and iLO IP Address of the DL380 RMS servers and upgrade the firmware. (If needed).</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>If this procedure fails, contact <b>Appendix K My Oracle Support</b> and ask for assistance.</p>
1 <input type="checkbox"/>	<p><b>Configure RMS Server.</b></p> <p>Connect to the RMS Server using a VGA Display and USB Keyboard.</p> <p><b>For HP DL 380 (G8) Servers execute:</b></p> <p>Appendix J.1.1 RMS: Configure ILO</p> <p>Appendix J.1.2 GEN8: RMS BIOS Configuration, Verify Processor and Memory</p> <p><b>For HP DL 380 (G9) Servers execute:</b></p> <p>Appendix J.2.1 RMS: Configure iL</p> <p>Appendix J.2.2 GEN9: RMS BIOS Configuration, verify processor &amp; memory</p>
2 <input type="checkbox"/>	<p><b>RMS Server:</b> Verify/Upgrade Firmware</p> <p>Follow the appropriate procedure for the ProLiant DL380(G8/G9) hardware type to verify and upgrade the HP server firmware using the procedures in [7] HP Solutions Firmware Upgrade Pack Upgrade Guide, Release 2.x.x, (Min 2.2.9)</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>

**Procedure 1. Configure the CMOS Clock, BIOS Settings, and iLO IP Address and Upgrade Firmware**

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

### 3. 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.

**Table 2 – SDS Installation Matrix**

Server Type		Procedures to perform											
		1	2	3	4	5	6	7	8	9	10	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 3 – SDS Installation – List of Procedures**

Procedure No.	Title	Page No.
Procedure 2	Installing the SDS Application (All SDS NOAM Sites)	16
Procedure 3	Configuring SDS Servers A and B (1st SDS NOAM site only)	24
Procedure 4	Pairing the SDS NOAM Servers (1 <sup>st</sup> SDS NOAM Site Only)	46
Procedure 5	Configuring the Query Server (All SDS NOAM Sites)	64
Procedure 6	Configuring the DR NOAM Servers (DR SDS NOAM Site Only)	83
Procedure 7	Pairing the DR SDS NOAM Servers (DR SDS NOAM Site Only)	100
Procedure 8	Add SDS Software Images to PMAC Servers for DSR Signaling Sites	114

Procedure No.	Title	Page No.
Procedure 9	Configuring the SDS SOAM Servers (All SOAM Sites)	118
Procedure 10	Pairing the SDS SOAM Servers (All SOAM Sites)	145
Procedure 11	Installing the Data Processor Blade (All SOAM Sites)	159
Procedure 12	Configuring ComAgent (All SOAM Sites)	191
D-1	Verifying Cisco Switch Wiring (All SDS NOAM Sites)	201
D-2	Configure Cisco 4948E-F Aggregation Switches	218
D-3	Cisco 4948E-F IOS Upgrade (All SDS NOAM Sites)	229
D-4	Cisco 4948E-F Configuration Backup (All SDS NOAM sites)	238
Appendix J	Configure the HP DL380 (GEN8 & GEN9) Server CMOS Clock/BIOS Settings	266

## 4. Application Installation

### 4.1 Installing the SDS Application (All SDS NOAM Sites)

The user should confirm that the server has been verified through the SDS Hardware Verification Plan [2] DSR Hardware Site Survey, WI006083, Latest Revision before beginning this procedure.

#### Procedure 2. 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 <b>Section 2.3</b> .
2. <input type="checkbox"/>	1) Access the command prompt. 2) Log into the HP server as the "admusr" user.	login: <b>admusr</b> Using keyboard-interactive authentication. Password: <b>&lt;admusr_password&gt;</b>
3. <input type="checkbox"/>	Verify that Date & Time are displayed in <b>GMT</b> (+/- 4 min.).	\$ <b>date -u</b> 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.**

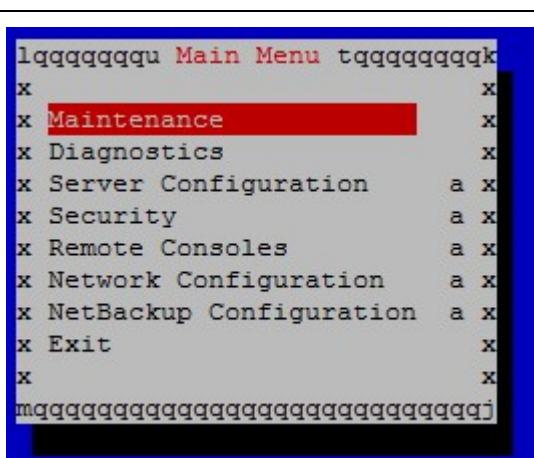
## Procedure 2. Installing the SDS Application (All SDS NOAM Sites)

Step	Procedure	Result
4. <input type="checkbox"/>	Verify that the TPD release is <b>7.4</b>	\$ <b>getPlatRev</b> 7.4.0.0.0-88.30.0
5. <input type="checkbox"/>	Execute <b>alarmMgr</b> command to verify any alarms of the server before the application install.	\$ <b>alarmMgr --alarmStatus</b>  <b>NOTE:</b> 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.
6. <input type="checkbox"/>	Execute “ <b>syscheck</b> ” to verify the state of the server before Application install.	\$ <b>sudo syscheck</b> 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  <b>NOTE:</b> The user should stop and resolve any errors returned from “syscheck” before continuing on to the next step.
7. <input type="checkbox"/>	Execute <b>verifyUpgrade</b> command to verify health of the server before the application install.	\$ <b>sudo verifyUpgrade</b>  <b>NOTE:</b> 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.
8. <input type="checkbox"/>	Verify Hardware ID is ProLiant DL380 GEN8 or GEN9.	\$ <b>hardwareInfo   grep Hardware</b> Hardware ID: ProLiantDL380pGEN8 - Or - Hardware ID: ProLiantDL380GEN9

## Procedure 2. Installing the SDS Application (All SDS NOAM Sites)

Step	Procedure	Result
9. <input type="checkbox"/>	Place the <b>USB drive</b> containing the <b>SDS Application software</b> into the server's USB port.	
		<b>Figure 3 – HP DL380 GEN8: Front Panel (USB Port)</b>
		
		<b>Figure 4 – HP DL380 GEN9: Front Panel (USB Port)</b>
10. <input type="checkbox"/>	Verify that the USB drive has been mounted under the <b>/media</b> directory.	<pre>\$ df  grep sdb /dev/sdb1      2003076      8  2003068  1% /media/sdb1</pre>
11. <input type="checkbox"/>	Verify that the <b>target release</b> is present on the USB drive.	<pre>\$ ls /media/sdb1/ SDS-8.0.0.0.0_80.16.0-x86_64.iso</pre>
12. <input type="checkbox"/>	Copy the target release to the server's hard disk under the <b>/var/TKLC/upgrade</b> directory.	<pre>\$ cp -p /media/sdb1/SDS-8.0.0.0.0_80.16.0-x86_64.iso /var/TKLC/upgrade/</pre>
13. <input type="checkbox"/>	Unmount the USB drive partition.	<pre>\$ sudo umount /media/sdb1 \$</pre>

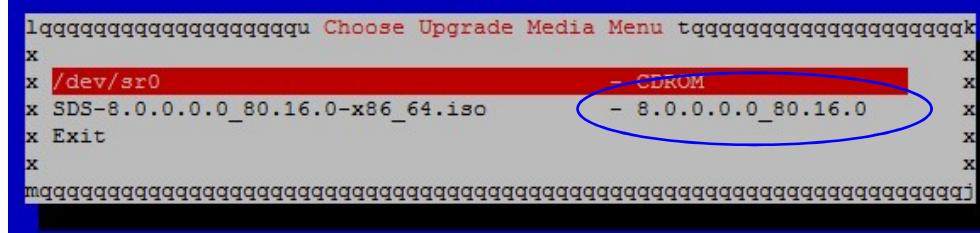
## Procedure 2. Installing the SDS Application (All SDS NOAM Sites)

Step	Procedure	Result
14. <input type="checkbox"/>	Remove the <b>USB drive</b> from the server's front panel.	
		<p style="text-align: center;"><b>Figure 3 – HP DL380 GEN8: Front Panel (USB Port)</b></p>
		
		<p style="text-align: center;"><b>Figure 4 – HP DL380 GEN9: Front Panel (USB Port)</b></p>
15. <input type="checkbox"/>	Login to the “ <b>platcfg</b> ” utility.	<pre>\$ sudo su - platcfg</pre>
16. <input type="checkbox"/>	From the “ <b>platcfg</b> ” Main Menu...	
	Select <b>Maintenance</b> then press the <ENTER> key	

## Procedure 2. Installing the SDS Application (All SDS NOAM Sites)

## Procedure 2. Installing the SDS Application (All SDS NOAM Sites)

## Procedure 2. 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: <b>admusr</b> Using keyboard-interactive authentication. Password: &lt;<b>admusr_password</b>&gt; </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> \$ <b>grep COMPLETE /var/TKLC/log/upgrade/upgrade.log</b> 1321462900:: UPGRADE IS COMPLETE </pre>

## Procedure 2. Installing the SDS Application (All SDS NOAM Sites)

Step	Procedure	Result
24. <input type="checkbox"/>	Execute <b>verifyUpgrade</b> command to verify status of upgrade.  Verify that SDS application release shown matches the target release	<pre>\$ sudo verifyUpgrade</pre> <p><b>NOTE:</b> 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> <pre>\$ rpm -qa  grep sds TKLCsds-8.0.0.0.0_80.16.0.x86_64</pre>
25. <input type="checkbox"/>	Accept upgrade to the Application Software.	<pre>\$ sudo /var/TKLC/backout/accept</pre> 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	<pre>\$ tw.setdate -trusted</pre> <p>Current time: 10/22/2014 16:25:07.869</p>
27. <input type="checkbox"/>	Exit from the command line to return the server console to the login prompt.	<pre>\$ exit</pre>
28. <input type="checkbox"/>	<ul style="list-style-type: none"> <li>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).</li> </ul>	
<b>THIS PROCEDURE HAS BEEN COMPLETED</b>		

## 5. Configuration Procedures

### 5.1 Configuring SDS Servers A and B (1<sup>st</sup> 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.

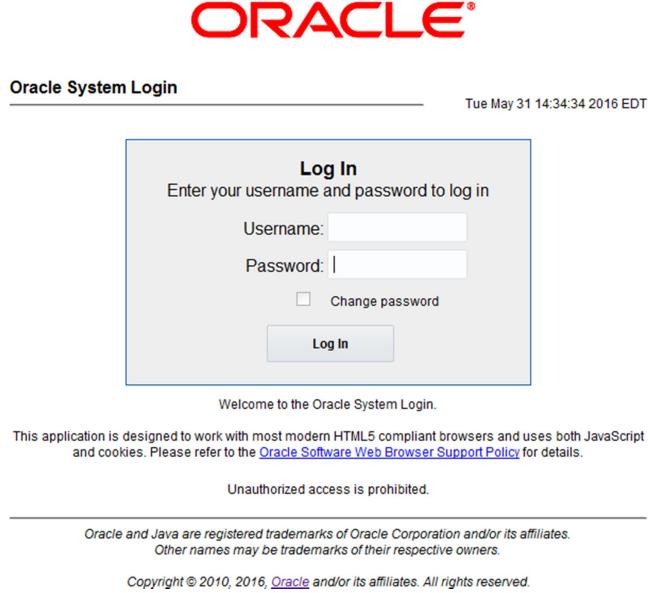
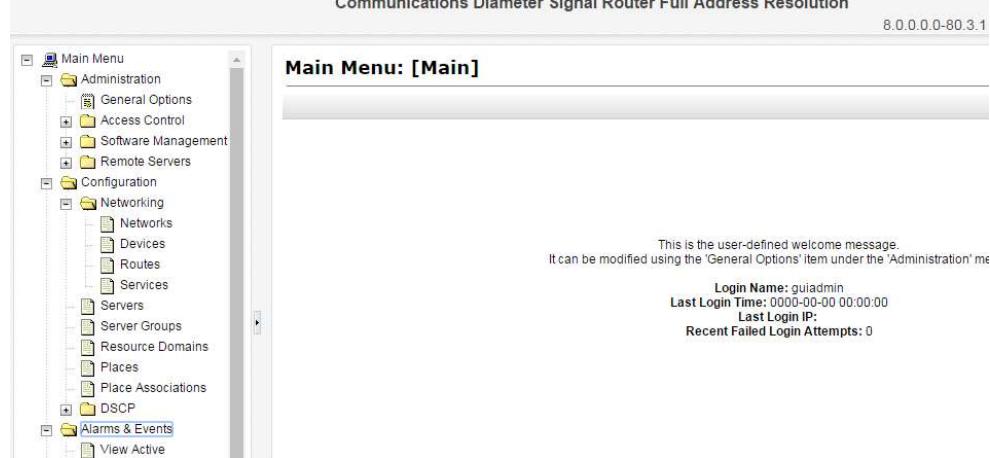
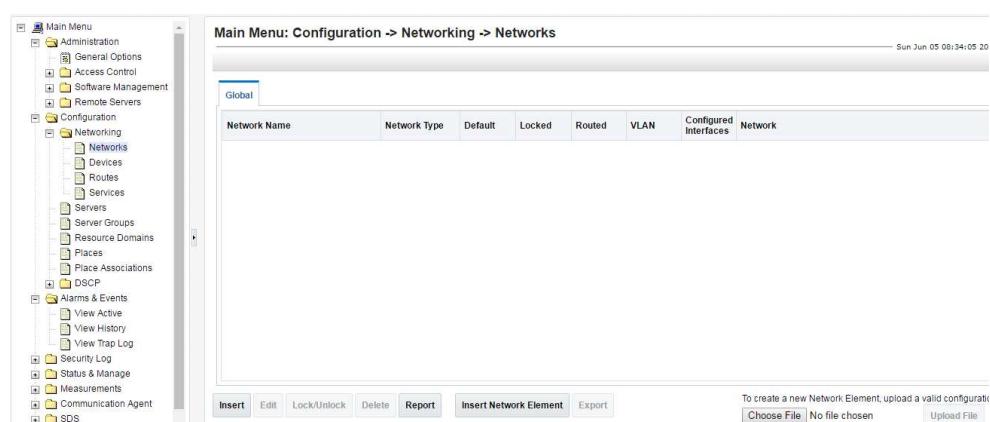
This procedure requires that the user connects to the SDS GUI prior to configuring the first SDS server. This can be done either by one of two procedures:

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.

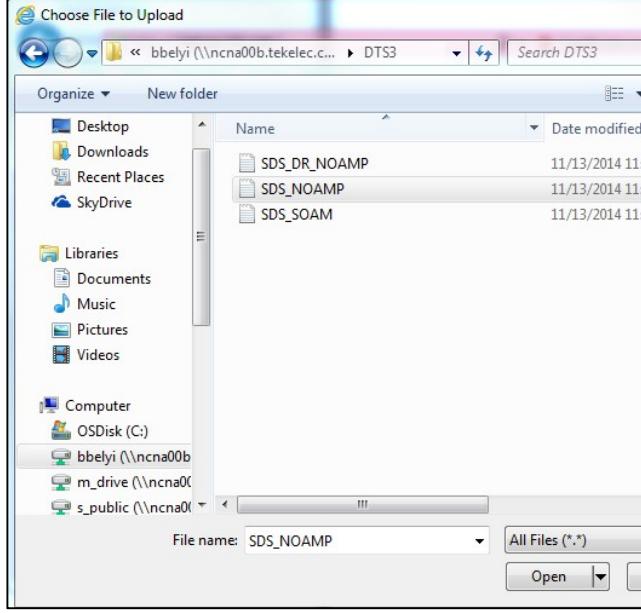
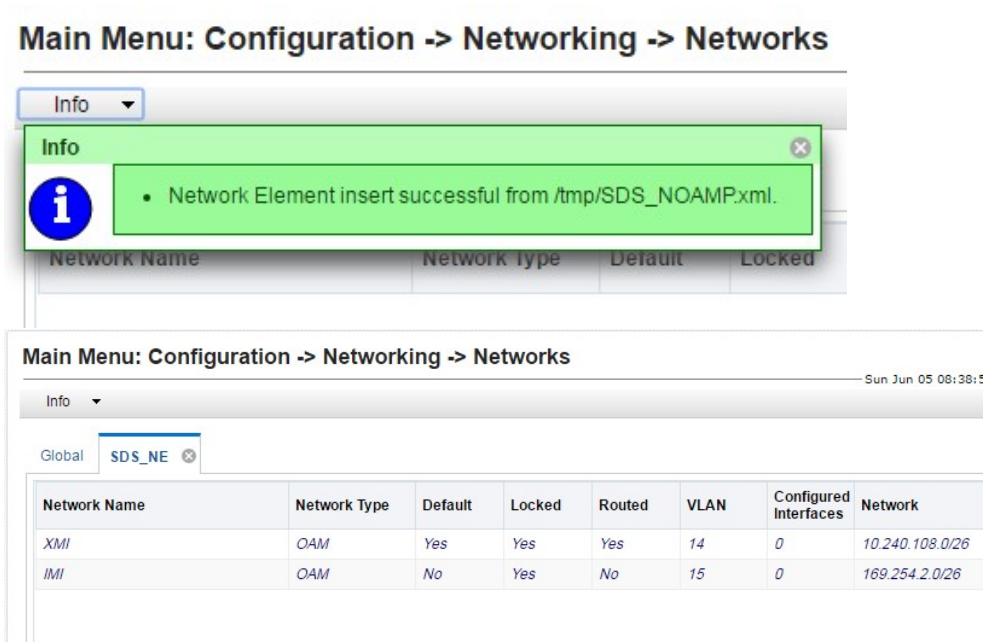
#### Procedure 3. Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result
1. <input type="checkbox"/>	<b>SDS NOAM A:</b> Connect to the SDS GUI.	<ul style="list-style-type: none"> <li>• Execute <b>Appendix C. Establishing a Local Connection for Accessing the SDS GUI</b></li> </ul>
2. <input type="checkbox"/>	<b>SDS NOAM A:</b> Launch an approved web browser and connect to the SDS NOAM A IP address using <a href="https://192.168.100.11">https://192.168.100.11</a> <b>NOTE:</b> 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 server.</p> <p>We recommend that you close this webpage and do not continue to:</p> <ul style="list-style-type: none"> <li>✓ Click here to close this webpage.</li> <li>✗ Continue to this website (not recommended).</li> <li> ⓘ More information</li> </ul>

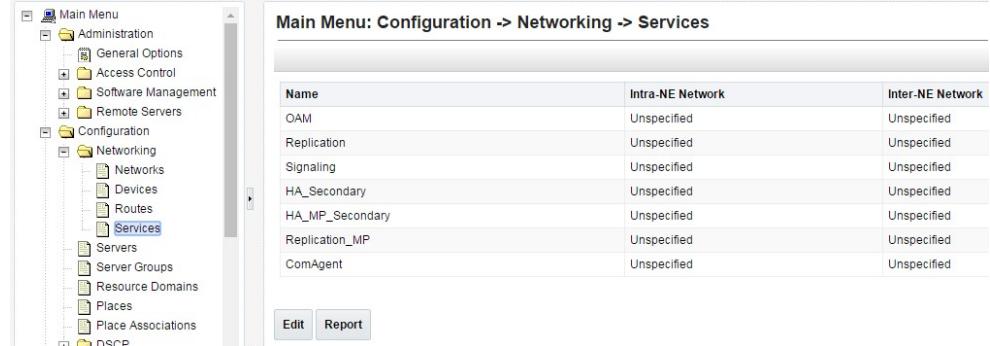
## Procedure 3. Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result
3.	<p><b>SDS NOAM A:</b></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>	
4.	<p><b>SDS NOAM A:</b></p> <p>The user should be presented the SDS Main Menu as shown on the right.</p>	
5.	<p>1) Select...</p> <p><b>Main Menu</b></p> <p>→ <b>Configuration</b></p> <p>→ <b>Networking</b></p> <p>→ <b>Networks</b></p> <p>...as shown on the right.</p> <p>2) Select the “Browse” dialogue button (scroll to bottom left corner of screen).</p>	

## Procedure 3. Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result																								
6. <input type="checkbox"/>	<p><b>SDS NOAM A:</b></p> <p><b>Note:</b> This step assumes that the <b>.xml</b> files were previously prepared, as described in <b>Appendix E</b>.</p> <ol style="list-style-type: none"> <li>1) Select the location containing the site <b>.xml</b> file.</li> <li>2) Select the <b>.xml</b> file and click the “<b>Open</b>” dialogue button.</li> </ol>																									
7. <input type="checkbox"/>	<p><b>SDS NOAM A:</b></p> <p>Select the “<b>Upload File</b>” dialogue button (bottom left corner of screen).</p>																									
8. <input type="checkbox"/>	<p><b>SDS NOAM A:</b></p> <p>If the values in the <b>.xml</b> file pass validation rules, the user will receive a banner information message showing that the data has been successfully validated and committed to the DB.</p> <p><b>NOTE:</b> You may have to left mouse click the “<b>Info</b>” banner option in order to see the banner output.</p>	<p><b>Main Menu: Configuration -&gt; Networking -&gt; Networks</b></p>  <table border="1"> <thead> <tr> <th>Network Name</th> <th>Network Type</th> <th>Default</th> <th>Locked</th> <th>Routed</th> <th>VLAN</th> <th>Configured Interfaces</th> <th>Network</th> </tr> </thead> <tbody> <tr> <td>XMI</td> <td>OAM</td> <td>Yes</td> <td>Yes</td> <td>Yes</td> <td>14</td> <td>0</td> <td>10.240.108.0/26</td> </tr> <tr> <td>IMI</td> <td>OAM</td> <td>No</td> <td>Yes</td> <td>No</td> <td>15</td> <td>0</td> <td>169.254.2.0/26</td> </tr> </tbody> </table>	Network Name	Network Type	Default	Locked	Routed	VLAN	Configured Interfaces	Network	XMI	OAM	Yes	Yes	Yes	14	0	10.240.108.0/26	IMI	OAM	No	Yes	No	15	0	169.254.2.0/26
Network Name	Network Type	Default	Locked	Routed	VLAN	Configured Interfaces	Network																			
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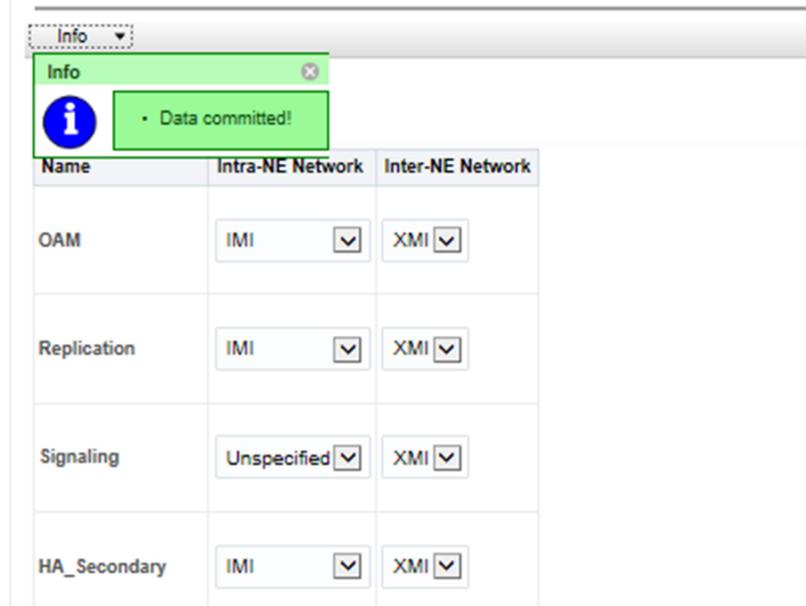
## Procedure 3. Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result																								
9.	<p><b>SDS NOAM A:</b></p> <p>1) Select...   <b>Main Menu</b>  <b>→ Configuration</b>  <b>→ Networking</b>  <b>→ Services</b>  ...as shown on the right.</p> <p>2) The user will be presented with the <b>“Services”</b> configuration screen as shown on the right.</p> <p>3) Select the <b>“Edit”</b> 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> <p><b>Edit</b> <b>Report</b></p>	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
Name	Intra-NE Network	Inter-NE Network																								
OAM	Unspecified	Unspecified																								
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HA_MP_Secondary	Unspecified	Unspecified																								
Replication_MP	Unspecified	Unspecified																								
ComAgent	Unspecified	Unspecified																								

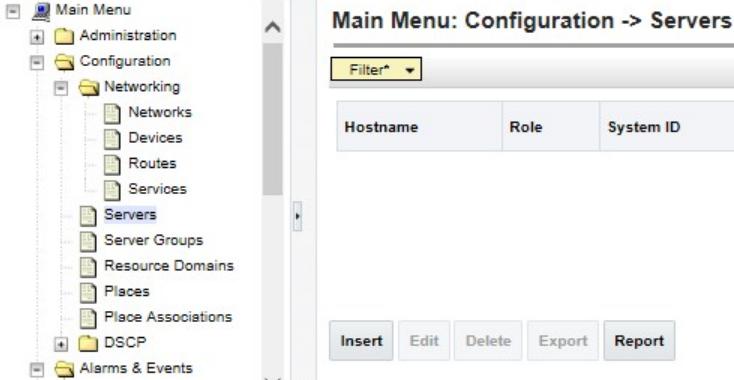
Procedure 3. Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result																								
10.	<p><b>SDS NOAM A:</b></p> <p>1) With the exception of “<b>Signaling</b>” which is left “<b>Unspecified</b>”, set other services values so that all <b>Intra-NE Network</b> traffic is directed across <b>IMI</b> and all <b>Inter-NE Network</b> traffic is across <b>XMI</b>.</p> <p>2) Select the “<b>Apply</b>” dialogue button.</p> <p>3) Select “<b>OK</b>” in new pop up GUI to change the effect</p>	<p><b>Main Menu: Configuration -&gt; Networking -&gt; Services [Edit]</b></p> <p><b>Services</b></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>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> <p>Ok    Apply    Cancel</p> <p>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 &amp; Manage-&gt;Server tab, ComAgent</p> <p>OK    Cancel</p>	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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Procedure 3. Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result																								
11.	<p><b>SDS NOAM A:</b></p> <p>1) The user should now click the “Info” tab to be presented with a banner information message stating “<b>Data committed</b>”</p> <p>2) Select the “Ok” dialogue button.</p>	<p><b>Main Menu: Configuration -&gt; Networking -&gt; Services [Edit]</b></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>IMI</td> <td>XMI</td> </tr> <tr> <td>Replication</td> <td>IMI</td> <td>XMI</td> </tr> <tr> <td>Signaling</td> <td>Unspecified</td> <td>XMI</td> </tr> <tr> <td>HA_Secondary</td> <td>IMI</td> <td>XMI</td> </tr> </tbody> </table>	Name	Intra-NE Network	Inter-NE Network	OAM	IMI	XMI	Replication	IMI	XMI	Signaling	Unspecified	XMI	HA_Secondary	IMI	XMI									
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12.	<p><b>SDS NOAM A:</b></p> <p>The user will be presented with the “<b>Services</b>” configuration screen as shown on the right</p>	<p><b>Main Menu: Configuration -&gt; Networking -&gt; Services</b></p> <p>Tue May 31 15:01:02 2016 EDT</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>IMI</td> <td>XMI</td> </tr> <tr> <td>Replication</td> <td>IMI</td> <td>XMI</td> </tr> <tr> <td>Signaling</td> <td>Unspecified</td> <td>XMI</td> </tr> <tr> <td>HA_Secondary</td> <td>IMI</td> <td>XMI</td> </tr> <tr> <td>HA_MP_Secondary</td> <td>IMI</td> <td>XMI</td> </tr> <tr> <td>Replication_MP</td> <td>IMI</td> <td>XMI</td> </tr> <tr> <td>ComAgent</td> <td>IMI</td> <td>XMI</td> </tr> </tbody> </table>	Name	Intra-NE Network	Inter-NE Network	OAM	IMI	XMI	Replication	IMI	XMI	Signaling	Unspecified	XMI	HA_Secondary	IMI	XMI	HA_MP_Secondary	IMI	XMI	Replication_MP	IMI	XMI	ComAgent	IMI	XMI
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Procedure 3. Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result																
13.	<p><b>SDS NOAM A:</b></p> <p>1) Select... <b>Main Menu</b> → <b>Configuration</b> → <b>Servers</b> ...as shown on the right.</p> <p>2) Select the “<b>Insert</b>” dialogue button.</p>	 <p><b>Note:</b> This step thru the last step of this procedure need to be done for both servers SDS NOAM A and SDS NOAM B.</p>																
14.	<p><b>SDS NOAM A:</b></p> <p>The user is now presented with the “<b>Adding a new server</b>” configuration screen.</p>	<p><b>Adding a new server</b></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><input type="button" value="Select Role"/></td></tr> <tr> <td>System ID</td><td><input type="text"/></td></tr> <tr> <td>Hardware Profile</td><td><input type="button" value="SDS HP c-Class Blade V1"/></td></tr> <tr> <td>Network Element Name *</td><td><input type="button" value="Unassigned"/></td></tr> <tr> <td>Location</td><td><input type="text"/></td></tr> <tr> <td colspan="2"> <input type="button" value="Ok"/> <input type="button" value="Apply"/> <input type="button" value="Cancel"/> </td></tr> </tbody> </table>	Attribute	Value	Hostname *	<input type="text"/>	Role *	<input type="button" value="Select Role"/>	System ID	<input type="text"/>	Hardware Profile	<input type="button" value="SDS HP c-Class Blade V1"/>	Network Element Name *	<input type="button" value="Unassigned"/>	Location	<input type="text"/>	<input type="button" value="Ok"/> <input type="button" value="Apply"/> <input type="button" value="Cancel"/>	
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## Procedure 3. Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result		
15.	<b>SDS NOAM A:</b>  Input the assigned “ <b>hostname</b> ” for the SDS NOAM (A or B).	Attribute	Value	Description
		Hostname *	sds-no-a	Unique name for the server. [Default = n/a. Range = A 20-character string. Valid characters are alphanumeric and minus sign. Must start with an alphanumeric and end with an alphanumeric.] [A value is required.]
16.	<b>SDS NOAM A:</b>  Select “ <b>NETWORK OAM&amp;P</b> ” for the server “ <b>Role</b> ” from the pull-down menu.	Role *	- Select Role - NETWORK OAM&P SYSTEM OAM MP QUERY SERVER	Select the function of the server [A value is required.]
17.	<b>SDS NOAM A:</b>  Input the assigned hostname again as the “ <b>System ID</b> ” for the SDS NOAM (A or B).	System ID	sds-no-a	System ID for the NOAMP or SOAM server. [Default = n/a. Range = A 64-character string. Valid value is any text string.]
18.	<b>SDS NOAM A:</b>  For GEN8: Select “ <b>SDS HP Rack Mount</b> ” for the <b>Hardware Profile</b> for the SDS from the pull-down menu.   For GEN9: Select “ <b>SDS HP GEN9 Rack Mount</b> ” for the <b>Hardware Profile</b> for the SDS from the pull-down menu.	Hardware Profile	SDS HP c-Class Blade V1 SDS HP Rack Mount SDS Cloud Guest SDS TVE Guest SDS HP c-Class Blade V2 SDS HP c-Class Blade V0	Valid value is any text string.] Hardware profile of the server
		Hardware Profile	SDS TVE Guest	
		Network Element Name *	SDS TVE Guest SDS HP Gen9 Rack Mount SDS HP c-Class Blade V0 SDS HP c-Class Blade V2 SDS Cloud Guest SDS HP c-Class Blade V1 SDS ESXI Guest SDS HP Rack Mount	
19.	<b>SDS NOAM A:</b>  Select the <b>Network Element Name</b> for the SDS from the pull-down menu.	Network Element Name *	SDS_NE	Select the network element [A value is required.]

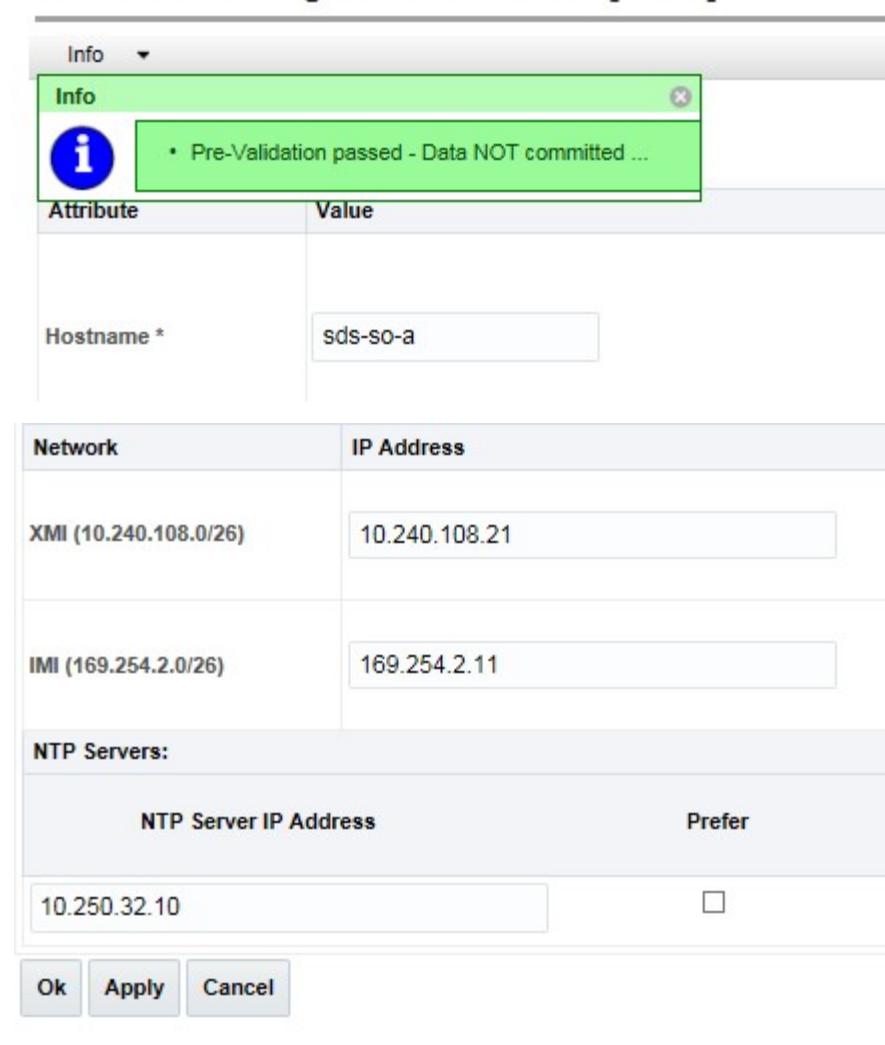
## Procedure 3. Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result																																		
20.	<p><b>SDS NOAM A:</b>  <input type="checkbox"/> Enter the site location.</p> <p><b>NOTE:</b> Location is an optional field.</p>		Location description [Default = "". Range = A 15-character string. Valid value is any text string.]																																	
21.	<p><b>SDS NOAM A:</b></p> <p>1) Enter the <b>MGMT_VLAN</b> IP address for the SDS Server.</p> <p>2) Set the <b>MGMT_VLAN</b> Interface to “<b>bond0</b>” and “<b>check</b>” the VLAN checkbox.</p> <p>3) Enter the <b>IMI</b> IP address for the SDS Server.</p> <p>4) Set the <b>IMI</b> Interface to “<b>bond0</b>” and “<b>check</b>” the VLAN checkbox.</p>	<p><b>OAM Interfaces [At least one interface is required.]:</b></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>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"><b>SDS-A</b></td> <td>MGMT_VLAN</td> <td>169.254.1.11</td> <td rowspan="2">bond0</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>IMI</td> <td>169.254.100.11</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td rowspan="2"><b>SDS-B</b></td> <td>MGMT_VLAN</td> <td>169.254.1.12</td> <td rowspan="2">bond0</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>IMI</td> <td>169.254.100.12</td> <td><input checked="" type="checkbox"/></td> </tr> </tbody> </table> <p><b>NOTE_1:</b> These IP addresses are based on the info in the NAPD and the Network Element Config file</p> <p><b>NOTE_2:</b> The <b>MGMT_VLAN</b> should only be present when 4948E-F AggregationSwitches are deployed with SDS NOAM / Query Server RMS. If the <b>MGMT_VLAN</b> is not present, the <b>IMI</b> network values shown above still apply.</p>	Network	IP Address	Interface	MGMT_VLAN (191.168.1.0/22)	191.240.1.11	bond0 ▾ <input type="checkbox"/> VLAN (2)	INTERNALXMI (10.240.20.0/22)	10.240.20.2	bond1 ▾ <input type="checkbox"/> VLAN (3)	INTERNALIMI (192.168.2.0/24)	192.168.2.100	bond0 ▾ <input type="checkbox"/> VLAN (4)	SDS Server (Primary NOAM)	Network	IP Address	Interface	VLAN Checkbox	<b>SDS-A</b>	MGMT_VLAN	169.254.1.11	bond0	<input checked="" type="checkbox"/>	IMI	169.254.100.11	<input checked="" type="checkbox"/>	<b>SDS-B</b>	MGMT_VLAN	169.254.1.12	bond0	<input checked="" type="checkbox"/>	IMI	169.254.100.12	<input checked="" type="checkbox"/>	
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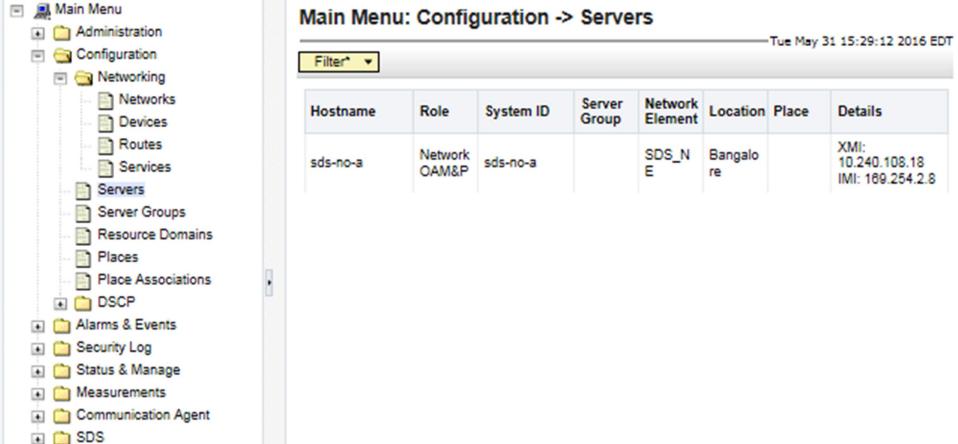
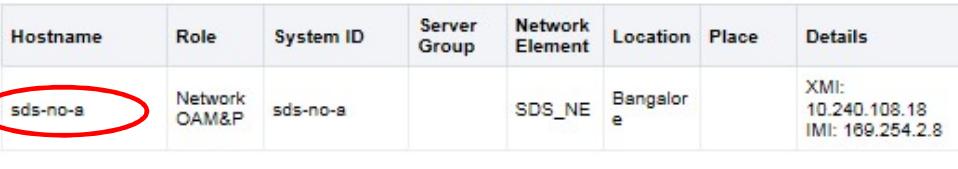
Procedure 3. Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result																									
22.	<p>1) Enter the customer assigned <b>XMI IP</b> address for the SDS Server.</p> <p><b>Layer 3</b> <b>(No VLAN tagging used for XMI)</b></p> <p>2) Set the <b>XMI</b> Interface to “<b>bond1</b>” and “<b>DO NOT check</b>” the VLAN checkbox.</p> <p>- OR -</p> <p><b>Layer 2</b> <b>(VLAN tagging used for XMI)</b></p> <p>2) Set the <b>XMI</b> Interface to “<b>bond0</b>” and “<b>check</b>” the VLAN checkbox.</p>	<div style="display: flex; justify-content: space-between;"> <div style="flex: 1;"> <p>INTERNALXMI (10.240.20.0/22)</p> <p>10.240.20.2</p> </div> <div style="flex: 1; text-align: right;"> <p>bond1 ▾</p> <p><input type="checkbox"/> VLAN (3)</p> </div> </div> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #ffffcc;">SDS Server (Primary NOAM)</th> <th style="background-color: #ffffcc;">Network</th> <th style="background-color: #ffffcc;">VLAN tagging (on XMI network)</th> <th style="background-color: #ffffcc;">Interface</th> <th style="background-color: #ffffcc;">VLAN Checkbox</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">SDS NOAM Server (A or B)</td> <td rowspan="2" 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 style="text-align: center;"></td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">bond0</td> <td style="text-align: center;"></td> </tr> </tbody> </table> <p><b>!!! CAUTION !!!</b></p> <p><i>It is crucial that the correct network configuration be selected in Steps 21 &amp; 22 of this procedure. Choosing an incorrect configuration will result in the need to re-install the OS and restart SDS instalation procedures over from the beginning.</i></p>	SDS Server (Primary NOAM)	Network	VLAN tagging (on XMI network)	Interface	VLAN Checkbox	SDS NOAM Server (A or B)	XMI	No	bond1			Yes	bond0												
SDS Server (Primary NOAM)	Network	VLAN tagging (on XMI network)	Interface	VLAN Checkbox																							
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		Yes	bond0																								
23.	<p><b>SDS NOAM A:</b></p> <p>1) Click the “<b>NTP Servers:</b>” “<b>Add</b>” dialogue button.</p> <p>2) Enter the <b>NTP Server IP Address</b> for an NTP Server.</p> <p>3) Enter 3 NTP Server <b>IP address</b>, repeat (1) and (2) to enter it.</p> <p>4) Optionally, click the “<b>Prefer</b>” checkbox to prefer one NTP Server over the other.</p>	<div style="display: flex; justify-content: space-between;"> <div style="flex: 1;"> <p><b>NTP Servers:</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%;">NTP Server IP Address</td> <td style="width: 30%; text-align: right;">Prefer</td> </tr> <tr> <td><input type="button" value="Add"/></td> <td style="text-align: right;"></td> </tr> </table> </div> </div> <div style="display: flex; justify-content: space-between;"> <div style="flex: 1;"> <p><b>NTP Servers:</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%;">NTP Server IP Address</td> <td style="width: 30%; text-align: right;">Prefer</td> </tr> <tr> <td><input type="text" value="10.240.21.191"/></td> <td style="text-align: right;"><input type="checkbox"/></td> </tr> <tr> <td><input type="button" value="Remove"/></td> <td style="text-align: right;"></td> </tr> </table> </div> </div> <div style="display: flex; justify-content: space-between;"> <div style="flex: 1;"> <p><b>NTP Servers:</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%;">NTP Server IP Address</td> <td style="width: 30%; text-align: right;">Prefer</td> </tr> <tr> <td><input type="text" value="10.240.21.191"/></td> <td style="text-align: right;"><input type="checkbox"/></td> </tr> <tr> <td><input type="text" value="10.240.21.192"/></td> <td style="text-align: right;"><input type="checkbox"/></td> </tr> <tr> <td><input type="text" value="10.240.21.193"/></td> <td style="text-align: right;"><input checked="" type="checkbox"/></td> </tr> <tr> <td><input type="button" value="Remove"/></td> <td style="text-align: right;"></td> </tr> </table> </div> </div>	NTP Server IP Address	Prefer	<input type="button" value="Add"/>		NTP Server IP Address	Prefer	<input type="text" value="10.240.21.191"/>	<input type="checkbox"/>	<input type="button" value="Remove"/>		NTP Server IP Address	Prefer	<input type="text" value="10.240.21.191"/>	<input type="checkbox"/>	<input type="text" value="10.240.21.192"/>	<input type="checkbox"/>	<input type="text" value="10.240.21.193"/>	<input checked="" type="checkbox"/>	<input type="button" value="Remove"/>						
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Procedure 3. Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM Site Only)

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24.	<p><b>SDS NOAM A:</b></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><b>Main Menu: Configuration -&gt; Servers [Insert]</b></p>  <table border="1"> <thead> <tr> <th>Attribute</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>Hostname *</td> <td>sds-so-a</td> </tr> <tr> <td>Network</td> <td>IP Address</td> </tr> <tr> <td>XMI (10.240.108.0/26)</td> <td>10.240.108.21</td> </tr> <tr> <td>IMI (169.254.2.0/26)</td> <td>169.254.2.11</td> </tr> <tr> <td colspan="2"><b>NTP Servers:</b></td> </tr> <tr> <td>NTP Server IP Address</td> <td>Prefer</td> </tr> <tr> <td>10.250.32.10</td> <td><input type="checkbox"/></td> </tr> </tbody> </table>	Attribute	Value	Hostname *	sds-so-a	Network	IP Address	XMI (10.240.108.0/26)	10.240.108.21	IMI (169.254.2.0/26)	169.254.2.11	<b>NTP Servers:</b>		NTP Server IP Address	Prefer	10.250.32.10	<input type="checkbox"/>
Attribute	Value																	
Hostname *	sds-so-a																	
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10.250.32.10	<input type="checkbox"/>																	

Procedure 3. Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result																
25.	<b>SDS NOAM A:</b> <input type="checkbox"/> If the values provided match the network ranges assigned to the SDS NE, the user will receive a banner information message showing that the data has been validated and committed to the DB.	<p><b>Main Menu: Configuration -&gt; Servers [Insert]</b></p>  <table border="1"> <tr> <td>Hostname *</td> <td>sds-so-a</td> </tr> </table>	Hostname *	sds-so-a														
Hostname *	sds-so-a																	
26.	<b>SDS NOAM A:</b> <input type="checkbox"/> Select... <b>Main Menu</b> <b>→ Configuration</b> <b>→ Servers</b> ...as shown on the right.	 <table border="1"> <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> <tr> <td>sds-no-a</td> <td>Network OAM&amp;P</td> <td>sds-no-a</td> <td></td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> <td>XMI: 10.240.108.18 IMI: 169.254.2.8</td> </tr> </table>	Hostname	Role	System ID	Server Group	Network Element	Location	Place	Details	sds-no-a	Network OAM&P	sds-no-a		SDS_NE	Bangalore		XMI: 10.240.108.18 IMI: 169.254.2.8
Hostname	Role	System ID	Server Group	Network Element	Location	Place	Details											
sds-no-a	Network OAM&P	sds-no-a		SDS_NE	Bangalore		XMI: 10.240.108.18 IMI: 169.254.2.8											
27.	<b>SDS NOAM A:</b> <input type="checkbox"/> The “Configuration → Servers” screen should now show the newly added <b>SDS Server</b> in the list.	 <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&amp;P</td> <td>sds-no-a</td> <td></td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> <td>XMI: 10.240.108.18 IMI: 169.254.2.8</td> </tr> </tbody> </table>	Hostname	Role	System ID	Server Group	Network Element	Location	Place	Details	sds-no-a	Network OAM&P	sds-no-a		SDS_NE	Bangalore		XMI: 10.240.108.18 IMI: 169.254.2.8
Hostname	Role	System ID	Server Group	Network Element	Location	Place	Details											
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Procedure 3. Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result							
28.	<p><b>SDS NOAM A:</b></p> <p>1) Use the cursor to select the <b>SDS Server</b> entry added in <b>Steps 13 – 25</b>.</p> <p>The row containing the desired <b>SDS Server</b> should now be highlighted in <b>BLUE</b>.</p> <p>2) Select the “<b>Export</b>” dialogue button.</p>	<p><b>Main Menu: Configuration -&gt; Servers</b></p> <p>Tue May 31 15:29:12 2016 EDT</p> <p><b>Filter*</b></p> <p>Hostname Role System ID Server Group Network Element Location Place Details</p> <table border="1"> <tr> <td>sds-no-a</td> <td>Network OAM&amp;P</td> <td>sds-no-a</td> <td></td> <td>SDS_NE</td> <td>Bangalore</td> <td>XMI: 10.240.108.18 IMI: 189.254.2.8</td> </tr> </table> <p>Insert Edit Delete Export Report</p>	sds-no-a	Network OAM&P	sds-no-a		SDS_NE	Bangalore	XMI: 10.240.108.18 IMI: 189.254.2.8
sds-no-a	Network OAM&P	sds-no-a		SDS_NE	Bangalore	XMI: 10.240.108.18 IMI: 189.254.2.8			
29.	<p><b>SDS NOAM A:</b></p> <p>The user will receive a banner information message showing a download link for the <b>SDS Server</b> configuration data.</p> <p>Click on the word “<b>downloaded</b>” to download and save the configuration file.</p>	<p><b>Main Menu: Configuration -&gt; Servers</b></p> <p><b>Filter*</b> Info</p> <p>Hostname Info</p> <p>sds-no-a</p> <p>Info: Exported server data in TKLCConfigData.sds-no-a.sh may be <a href="#">downloaded</a></p> <p>OAM&amp;P SDS-no-a SDS_NE Bangalor</p> <p><b>Note:</b> You may be required to click the <b>Info</b> tab to display the Info banner shown here.</p>							
30.	<p><b>SDS NOAM A:</b></p> <p>1) Click the “<b>Save</b>” dialogue button.</p> <p>2) Save the <b>SDS Server</b> configuration file to a <b>USB</b> flash drive.</p>	<p><b>File Download</b></p> <p>Do you want to open or save this file?</p> <p>Name: TKLCConfigData.sds-mrsync-a.sh Type: sh_auto_file From: 10.250.55.124</p> <p>Open Save Cancel</p> <p>While files from the Internet can be useful, some files can potentially harm your computer. If you do not trust the source, do not open or save this file. <a href="#">What's the risk?</a></p> <p><b>Save As</b></p> <p>Save in: USB (E:)</p> <p>File name: TKLCConfigData.sds-mrsync-a.sh Save as type: sh Document</p> <p>Save Cancel</p>							
31.	<p><b>SDS Server NOAM A or B:</b></p> <p>Access the server console.</p>	<p>Connect to the <b>SDS NOAM-A</b> and <b>SDS NOAM-B</b> console using one of the access methods described in <b>Section 2.3</b>.</p>							

Procedure 3. Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result
32. <input type="checkbox"/>	<b>SDS Server NOAM A or B:</b> 1) Access the command prompt. 2) Log into the server as the "admusr" user.	<pre>login: <b>admusr</b> Using keyboard-interactive authentication. Password: &lt;<b>admusr_password</b>&gt;</pre>
33. <input type="checkbox"/>	<b>SDS Server NOAM A or B:</b> Insert the USB flash drive containing the server configuration file into the USB port on the front panel of <b>SDS Server</b> .	 <b>Figure 3 – HP DL380 GEN8: Front Panel (USB Port)</b>  <b>Figure 4 – HP DL380 GEN9: Front Panel (USB Port)</b>
34. <input type="checkbox"/>	<b>SDS Server NOAM A or B:</b> Output similar to that shown on the right will appear as the USB flash drive is inserted into the <b>SDS Server</b> 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 &lt;<b>ENTER</b>&gt;</pre> <p><b>NOTE:</b> Press the &lt;<b>ENTER</b>&gt; key to return to the command prompt.</p>
35. <input type="checkbox"/>	<b>SDS Server NOAM A or B:</b> Verify that the USB flash drive's partition has been mounted by the OS: Search <b>df</b> for the device named in the previous step's output.	<pre>\$ <b>df   grep sdb</b> /dev/sdb1      2003076      8  2003068   1% <b>/media/sdb1</b></pre>

Procedure 3. Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result
36. <input type="checkbox"/>	<p><b>SDS Server NOAM A or B:</b></p> <p>Copy the configuration file to the SDS server</p> <p><b>NOTE:</b> This step can be skipped for SDS Server A because the file should already exist.</p>	<pre>\$ sudo cp -p /media/sdb1/TKLCConfigData.sds-mrsvnc-a.sh /var/TKLC/db/filemgmt/.</pre> <p><b>NOTE:</b> If Appendix C was used to create this interface, un-configure the interface before copying this file.</p>
37. <input type="checkbox"/>	Unmount the USB drive partition.	<pre>\$ sudo umount /media/sdb1</pre> <pre>\$</pre>
38. <input type="checkbox"/>	<p><b>SDS Server NOAM A or B:</b></p> <p>Copy the <b>server</b> configuration file to the “<b>/var/tmp</b>” directory on the server, making sure to rename the file by omitting the server hostname from the file name.</p>	<p><b>Example:</b> TKLCConfigData&lt;.server_hostname&gt;.sh → will translate to →TKLCConfigData.sh</p> <pre>\$ sudo cp -p /var/TKLC/db/filemgmt/TKLCConfigData.sds-mrsvnc-a.sh /var/tmp/TKLCConfigData.sh</pre> <p><b>NOTE:</b> The server will poll the <b>/var/tmp</b> directory for the presence of the configuration file and automatically execute it when found.</p>
39. <input type="checkbox"/>	<p><b>SDS Server NOAM A or B:</b></p> <p>After the script completes, a broadcast message will be sent to the terminal.</p>	<p><b>*** NO OUTPUT FOR ≈ 3-20 MINUTES ***</b></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.</p> <p><b>NOTE:</b> The user should be aware that the time to complete this step varies by server and may take 3 ...20 minutes to complete.</p>

**Procedure 3. Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM Site Only)**

Step	Procedure	Result
40. <input type="checkbox"/>	<p><b>SDS Server NOAM A or B:</b></p> <p>Remove the USB flash drive from the USB port on the front panel of the server.</p> <p><b>CAUTION:</b> <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>
41. <input type="checkbox"/>	<p><b>SDS Server NOAM A or B:</b></p> <p>Ignore the output shown and press the <b>&lt;ENTER&gt;</b> 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.</p> <p><b>&lt;ENTER&gt;</b></p>
42. <input type="checkbox"/>	<p><b>SDS Server NOAM A or B:</b></p> <p>Verify that the desired Time Zone is currently in use.</p>	<pre>\$ date</pre> <p>Mon Aug 10 19:34:51 UTC 2015</p>
43. <input type="checkbox"/>	<p><b>SDS Server NOAM A or B:</b></p> <p>If the desired Time Zone was not presented in the previous step...</p> <p><b>Configure the Time Zone.</b></p> <p>Otherwise, skip to the next step.</p>	<p><b>Example:</b> <code>\$ sudo set_ini_tz.pl &lt;time_zone&gt;</code></p> <p><b>NOTE:</b> The following command example sets the time to the “UTC” (aka GMT) time zone which is recommended for all sites.</p> <p>The user may replace, as appropriate, with the customer requested time zone for this site installation. See <b>Appendix G</b> for a list of valid time zones.</p> <pre>\$ sudo set_ini_tz.pl "Etc/UTC"</pre>
44. <input type="checkbox"/>	<p><b>SDS Server NOAM A or B:</b></p> <p>Initiate a reboot of the SDS Server.</p>	<pre>\$ sudo init 6</pre>

Procedure 3. Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result
45.	<b>SDS Server NOAM A or B:</b> <input type="checkbox"/> 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>
46.	<b>SDS Server NOAM A or B:</b> <input type="checkbox"/> After the server has completed reboot, log into the server as the "admusr" user.	Login: <b>admusr</b> Using keyboard-interactive authentication. Password: <b>&lt;admusr_password&gt;</b>
47.	Run Accepting script.	<pre>[admusr@nassau-sds-so-b ~]\$ 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@nassau-sds-so-b ~]\$</pre>

Procedure 3. Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result
48. <input type="checkbox"/>	<p><b>SDS Server NOAM A or B:</b></p> <p>1) Verify that the <b>IMI IP address</b> and the <b>bond</b> VLAN configuration input in <b>Step 21</b> has been correctly applied.</p> <p>2) Verify that the <b>XMI IP address</b> and the <b>bond</b> configuration input in <b>Step 22</b> has been correctly applied.</p> <p><b>NOTE:</b> The server's <b>XMI &amp; IMI addresses</b> can also be verified by reviewing the server configuration through the SDS GUI under <b>[Main Menu → Configuration → Server]</b> screen.</p>	<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:10.250.55.124  Bcast:10.250.55.255  Mask:255.255.255.0 eth01      Link encap:Ethernet HWaddr 98:4B:E1:6F:74:68 eth02      Link encap:Ethernet HWaddr 98:4B:E1:6F:74:6A eth11      Link encap:Ethernet HWaddr 98:4B:E1:6F:74:68 eth12      Link encap:Ethernet HWaddr 98:4B:E1:6F:74:6A lo         Link encap:Local Loopback             inet addr:127.0.0.1  Mask:255.0.0.0</pre>
49. <input type="checkbox"/>	<p><b>SDS Server NOAM A or B:</b></p> <p>Use the “<b>ntpq</b>” command to verify that the server has connectivity to the assigned Primary and Secondary NTP server(s).</p>	<pre>\$ ntpq -np remote          refid      st t when poll reach  delay  offset  jitter ===== *10.250.32.10  192.5.41.209  2 u    1   64    1    0.176  -0.446 0.053           10.250.32.51  192.5.41.209  2 u    2   64    1    0.174  -0.445 0.002</pre>
<p> <b>IF CONNECTIVITY TO THE NTP SERVER(S) CANNOT BE ESTABLISHED, STOP AND EXECUTE THE FOLLOWING STEPS:</b></p> <ol style="list-style-type: none"> <li>1) Have the Customer IT group provide a network path from the SDS NOAM Server XMI IP to the assigned NTP Server IP addresses.</li> <li>2) Once network connectivity is established to the configured NTP Servers, then restart this procedure beginning with STEP 49.</li> </ol>		

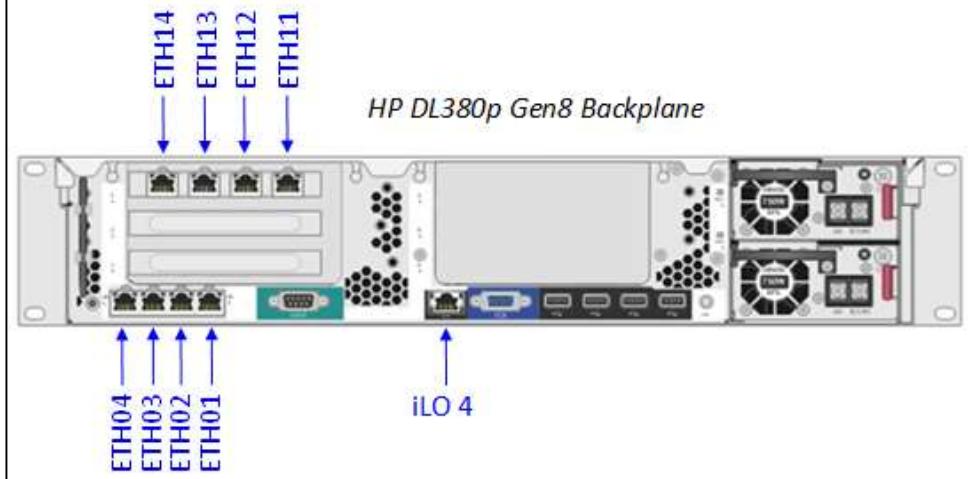
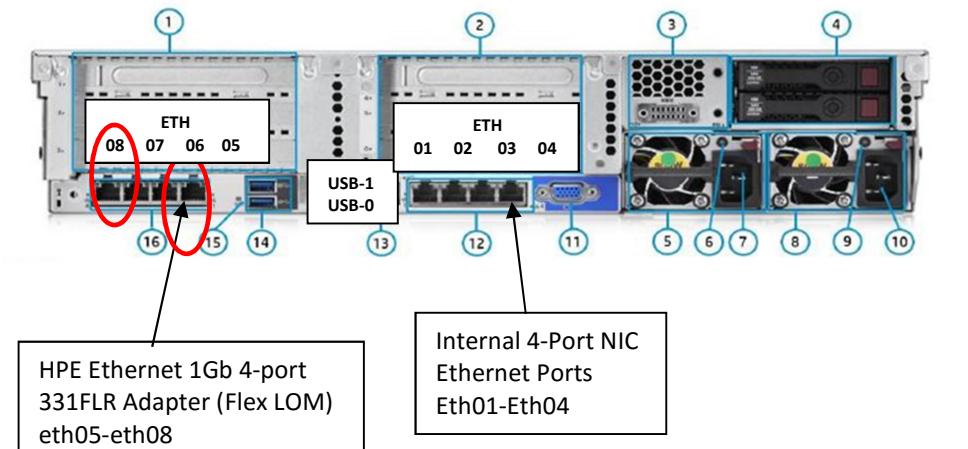
Procedure 3. Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result
50. <input type="checkbox"/>	<b>SDS Server NOAM A or B:</b>  Execute a “ <b>syscheck</b> ” to verify the current health of the server.	\$ <b>sudo syscheck</b> 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
51. <input type="checkbox"/>	<b>SDS Server NOAM A or B:</b>  Exit to return to the login prompt.	\$ <b>exit</b>
52. <input type="checkbox"/>		<ul style="list-style-type: none"> <li>• <b>Configure SDS Server B by repeating steps 13 – 50 of this procedure.</b></li> </ul>
<p> IF AGGREGATION SWITCHES ARE INSTALLED AND 4948E-F SWITCH CONFIGURATION HAS NOT BEEN COMPLETED PRIOR TO THIS STEP, STOP AND EXECUTE THE FOLLOWING PROCEDURES:</p> <ol style="list-style-type: none"> <li>1) APPENDIX D-1</li> <li>2) APPENDIX D-2 (Appendix E.2 references Appendix E.3 where applicable).</li> <li>3) APPENDIX D-4</li> </ol>		
53. <input type="checkbox"/>	<b>SDS Server NOAM A:</b> From <b>SDS Server NOAM A</b> , “ping” the <b>IMI IP address</b> configured for on <b>SDS Server B</b> .	\$ <b>ping -c 5 169.254.100.12</b> 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

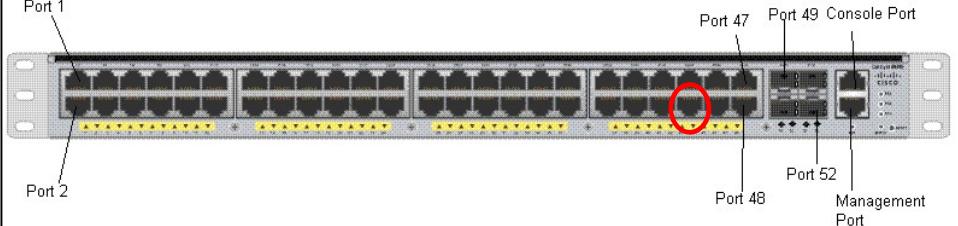
Procedure 3. Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM Site Only)

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

Procedure 3. Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result
57. <input type="checkbox"/>	<p><b>SDS Server NOAM A:</b></p> <p>Disconnect the laptop from the <b>Server NOAM A, eth14</b> Ethernet port.</p> <p>For GEN9: Disconnect the laptop from the <b>Server NOAM A, eth08</b> Ethernet port.</p>	 <p>HP DL380p Gen8 Backplane</p> <p>Diagram showing the rear panel of an HP DL380p Gen8 server. The backplane has 14 Ethernet ports labeled ETH14 down to ETH11. An iLO 4 port is also present.</p> <p><b>Figure 5 – HP DL380 GEN8: Rear Panel (Ethernet)</b></p>  <p>Figure 6 – HP DL380 GEN9: DC (Rear Panel)</p> <p>Diagram showing the rear panel of an HP DL380 GEN9 server. The panel is labeled with numbers 1 through 16. It highlights the HPE Ethernet 1Gb 4-port 331FLR Adapter (Flex LOM) and Internal 4-Port NIC Ethernet Ports.</p>

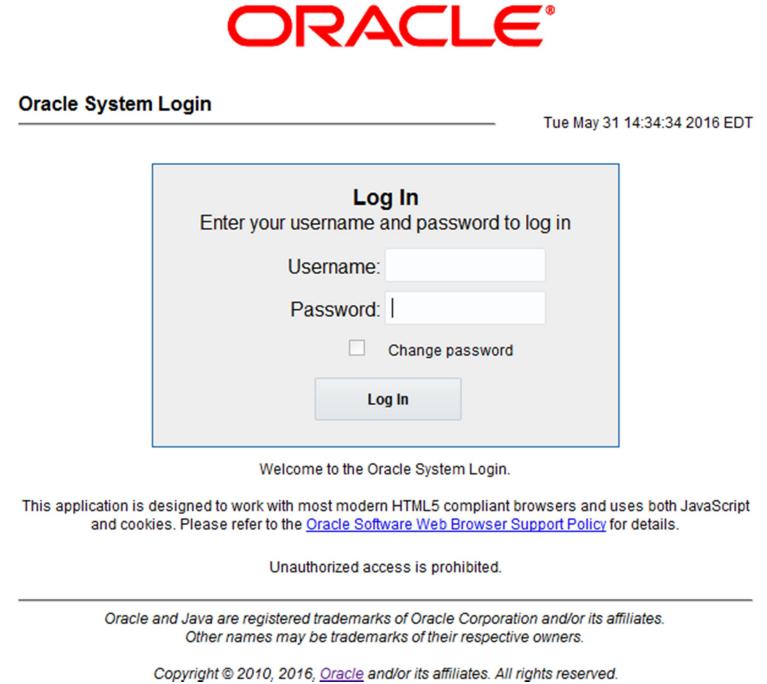
**Procedure 3. Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM Site Only)**

Step	Procedure	Result
58. <input type="checkbox"/>	<p><b>switch1A:</b></p> <p>Connect the laptop to <b>Port 44</b> of <b>switch1A</b> (bottom switch).</p>	 <p><b>Figure 7 – Cisco 4948E-F Switch (Maintenance Access Port)</b></p> <p><b>To Configure Port 44</b></p> <pre>\$ sudo netConfig --device=&lt;device name&gt; setSwitchport interface=&lt;interface name&gt; type=trunk</pre> <pre>\$sudo netConfig --device=&lt;device name&gt; setSwitchport interface=&lt;interface name&gt; type=access</pre> <p>&lt;device name&gt;: The device name should be the name of switch. &lt;interface name&gt;: GE44</p>
59. <input type="checkbox"/>	<p><b>Laptop:</b></p> <p>Set a static IP address and netmask within the Management VLAN for the laptop's network interface card (<b>169.254.1.100</b> is suggested).</p>	<ul style="list-style-type: none"> <li>Reference <b>Appendix C. Steps 6-7</b> if assistance is needed in modifying the laptop's network configuration.</li> </ul>
60. <input type="checkbox"/>	<p><b>SDS Server NOAM A:</b></p> <p>Using <b>SSH</b>, login to <b>Server NOAM A</b> using its Management VLAN IP address <b>169.254.1.11</b></p>	<pre>login: admusr Using keyboard-interactive authentication. Password: &lt;admusr_password&gt;</pre>
61. <input type="checkbox"/>	<p><b>SDS Server NOAM A:</b></p> <p>For GEN8: Delete eth14</p> <p>For GEN9: Delete eth08</p>	<p>For GEN8</p> <pre>\$ sudo netAdm delete --device=eth14 Interface eth14 removed</pre> <p>For GEN9</p> <pre>\$ sudo netAdm delete --device=eth08 Interface eth08 removed</pre>
<b>THIS PROCEDURE HAS BEEN COMPLETED</b>		

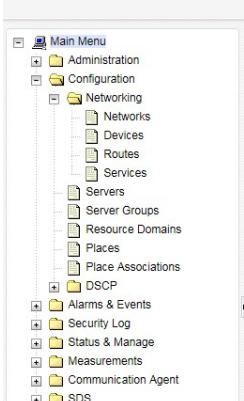
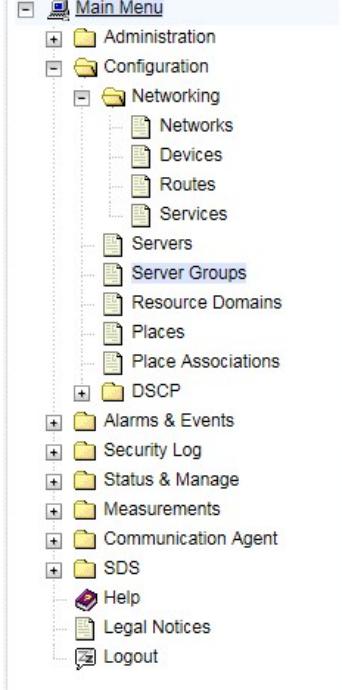
## 5.2 OAM Pairing (1st SDS NOAM Site Only)

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.

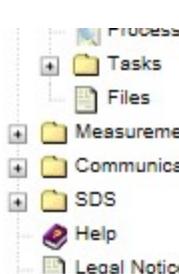
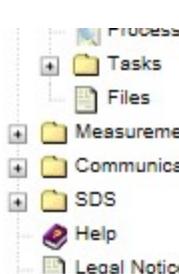
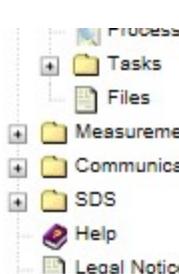
### Procedure 4. Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result
1.	<p><b>SDS Server NOAM A:</b></p> <p><input type="checkbox"/> Launch an approved web browser and connect to the SDS Server NOAM A IP XMI address</p> <p><b>NOTE:</b> If presented with the “security certificate” warning screen shown to the right, choose the following option: “<b>Continue to this website (not recommended)</b>”.</p>	
2.	<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>	

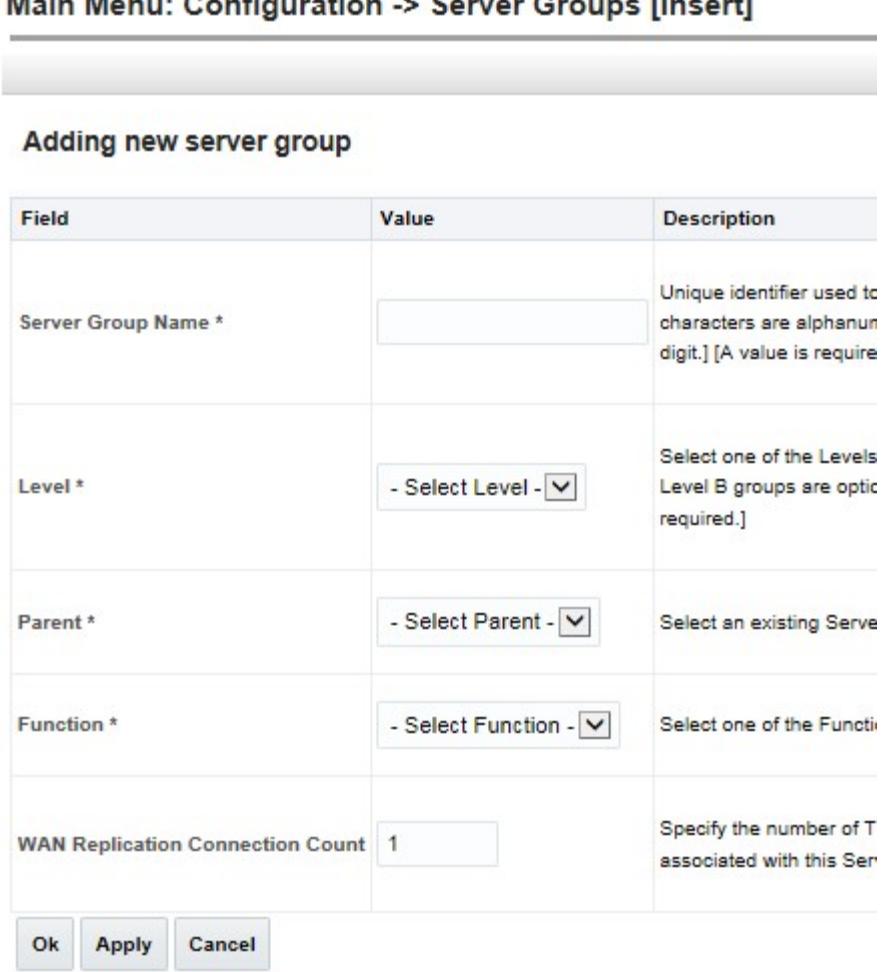
## Procedure 4. Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result			
3.	<b>SDS Server NOAM A:</b> <input type="checkbox"/> 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><b>Main Menu: [Main]</b></p> <p>This is the user-defined welcome message. It can be modified using the 'General Options' item under the 'Administrator' 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.	<b>SDS Server NOAM A:</b> <input type="checkbox"/> Select...  <u>Main Menu</u> <b>→ Configuration</b> <b>→ Server Groups</b>  ...as shown on the right.	 <p><b>Main Menu: Configuration -&gt; Server Groups</b></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 4. Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result												
5.	<p><b>SDS Server NOAM A:</b></p> <p>1) The user will be presented with the “<b>Server Groups</b>” configuration screen as shown on the right.</p> <p>2) Select the “<b>Insert</b>” dialogue button from the bottom left corner of the screen.</p>	<p><b>Main Menu: Configuration -&gt; Server Groups</b></p> <p><b>Filter*</b> ▾</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>  </td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table> <p><b>Note:</b> The user may need to use the vertical scroll-bar in order to make the “<b>Insert</b>” dialogue button visible</p>	Server Group Name	Level	Parent	Function	Connection Count	Servers						
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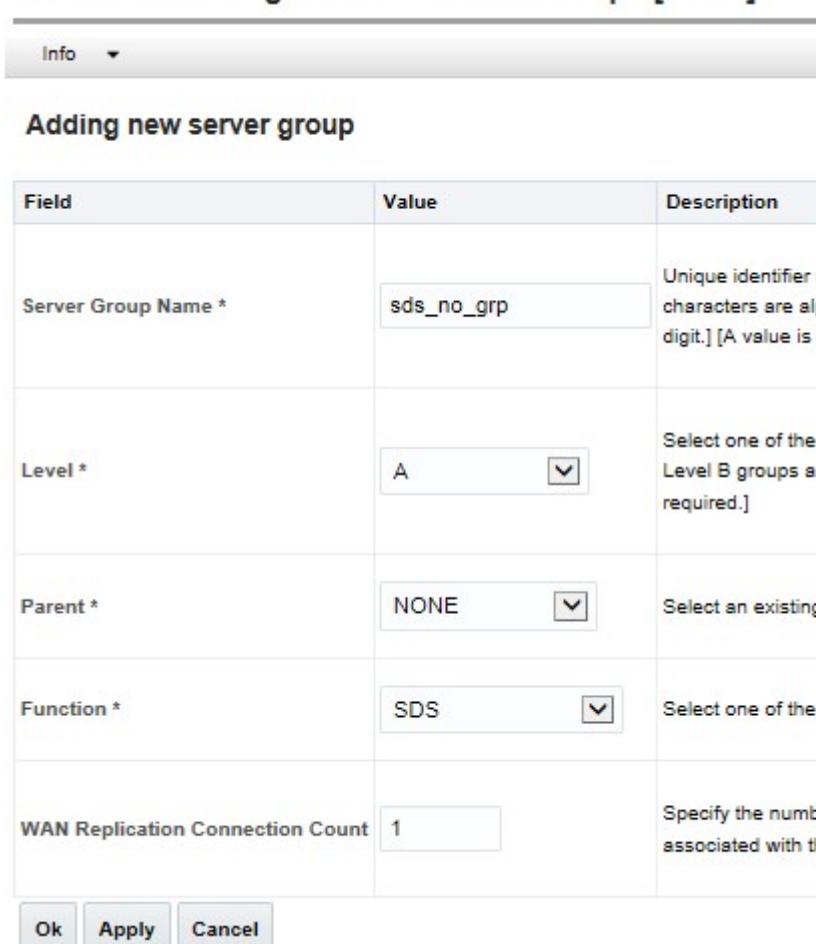
Procedure 4. Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result																		
6.	<p><b>SDS Server NOAM A:</b></p> <p><input type="checkbox"/></p> <p>The user will be presented with the “<b>Server Groups [Insert]</b>” screen as shown on the right.</p> <p><b>NOTE:</b> Leave the “<b>WAN Replication Connection Count</b>” blank (it will default to 1).</p>	<p><b>Main Menu: Configuration -&gt; Server Groups [Insert]</b></p>  <p><b>Adding new server group</b></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 characters are alphanumeric [A value is required]</td> </tr> <tr> <td>Level *</td> <td>- Select Level -</td> <td>Select one of the Levels Level B groups are optional required.]</td> </tr> <tr> <td>Parent *</td> <td>- Select Parent -</td> <td>Select an existing Server</td> </tr> <tr> <td>Function *</td> <td>- Select Function -</td> <td>Select one of the Functions</td> </tr> <tr> <td>WAN Replication Connection Count</td> <td>1</td> <td>Specify the number of T associated with this Server</td> </tr> </tbody> </table> <p>Ok Apply Cancel</p>	Field	Value	Description	Server Group Name *		Unique identifier used to characters are alphanumeric [A value is required]	Level *	- Select Level -	Select one of the Levels Level B groups are optional required.]	Parent *	- Select Parent -	Select an existing Server	Function *	- Select Function -	Select one of the Functions	WAN Replication Connection Count	1	Specify the number of T associated with this Server
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7.	<p><b>SDS Server NOAM A:</b></p> <p><input type="checkbox"/></p> <p>Input the <b>Server Group Name</b>.</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 characters are alphanumeric [A value is required]</td> </tr> </tbody> </table>	Field	Value	Description	Server Group Name *	sds_no_grp	Unique identifier used to characters are alphanumeric [A value is required]												
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8.	<p><b>SDS Server NOAM A:</b></p> <p><input type="checkbox"/></p> <p>Select “<b>A</b>” on the “<b>Level</b>” 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 characters are alphanumeric [A value is required]</td> </tr> </tbody> </table>	Field	Value	Description	Server Group Name *	sds_no_grp	Unique identifier used to characters are alphanumeric [A value is required]												
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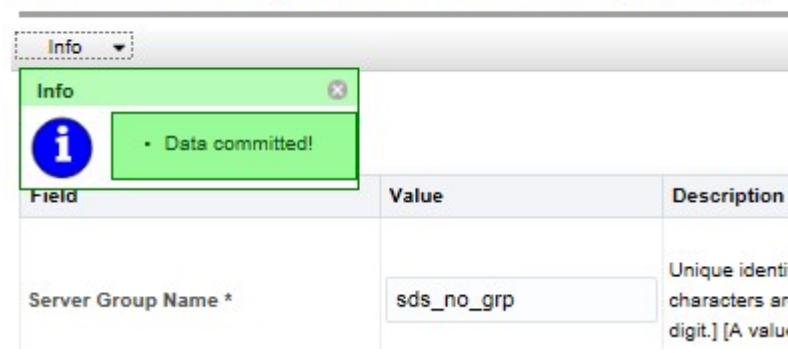
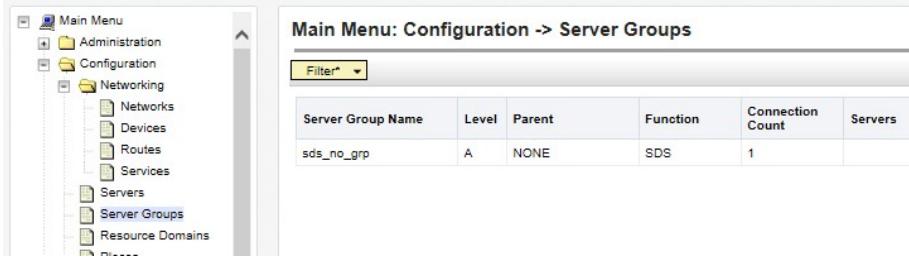
Procedure 4. Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result	
9.	<b>SDS Server NOAM A:</b>  Select “None” on the “Parent” pull-down menu.	Parent *  - Select Parent- NONE	Select an existing Server Group or NONE [A value is required]
10.	<b>SDS Server NOAM A:</b>  Select “SDS” on the “Function” pull-down menu.	Function *  - Select Function - NONE SDS	Select one of the Functions supported by

Procedure 4. Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result																		
11.	<p><b>SDS Server NOAM A:</b></p> <p>1) The user should be presented with a banner information message stating “<b>Pre-Validation passed</b>”.</p> <p>2) Select the “<b>Apply</b>” dialogue button.</p>	 <p><b>Main Menu: Configuration -&gt; Server Groups [Insert]</b></p> <p>Info</p> <p>Pre-Validation passed - Data NOT committed...</p> <p>Field Value Description</p> <p>Unique identifier used to label...</p>  <p><b>Main Menu: Configuration -&gt; Server Groups [Insert]</b></p> <p>Info</p> <p><b>Adding new server group</b></p> <table border="1"> <thead> <tr> <th>Field</th><th>Value</th><th>Description</th></tr> </thead> <tbody> <tr> <td>Server Group Name *</td><td>sds_no_grp</td><td>Unique identifier u characters are alp digit.] [A value is r</td></tr> <tr> <td>Level *</td><td>A</td><td>Select one of the l Level B groups are required.]</td></tr> <tr> <td>Parent *</td><td>NONE</td><td>Select an existing</td></tr> <tr> <td>Function *</td><td>SDS</td><td>Select one of the F</td></tr> <tr> <td>WAN Replication Connection Count</td><td>1</td><td>Specify the numbe associated with thi</td></tr> </tbody> </table> <p>Ok Apply Cancel</p>	Field	Value	Description	Server Group Name *	sds_no_grp	Unique identifier u characters are alp digit.] [A value is r	Level *	A	Select one of the l Level B groups are required.]	Parent *	NONE	Select an existing	Function *	SDS	Select one of the F	WAN Replication Connection Count	1	Specify the numbe associated with thi
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Procedure 4. Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result												
12. <input type="checkbox"/>	<b>SDS Server NOAM A:</b> The user should be presented with a banner information message stating <b>“Data committed”</b> .	 <p><b>Main Menu: Configuration -&gt; Server Groups [Insert]</b></p> <p><b>Info</b></p> <p>Info</p> <p>• Data committed!</p> <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name *</td> <td>sds_no_grp</td> <td>Unique identif characters are digit.] [A value</td> </tr> </tbody> </table>	Field	Value	Description	Server Group Name *	sds_no_grp	Unique identif characters are digit.] [A value						
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13. <input type="checkbox"/>	<b>SDS Server NOAM A:</b> Select... <u>Main Menu</u> → Configuration → Server Groups ...as shown on the right.	 <p><b>Main Menu: Configuration -&gt; Server Groups</b></p> <p><b>Filter*</b></p> <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Connection Count</th> <th>Servers</th> </tr> </thead> <tbody> <tr> <td>sds_no_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>1</td> <td></td> </tr> </tbody> </table>	Server Group Name	Level	Parent	Function	Connection Count	Servers	sds_no_grp	A	NONE	SDS	1	
Server Group Name	Level	Parent	Function	Connection Count	Servers									
sds_no_grp	A	NONE	SDS	1										
14. <input type="checkbox"/>	<b>SDS Server NOAM A:</b> The <b>Server Group</b> entry added in <b>Steps 6 – 12</b> should now appear on the <b>“Server Groups”</b> configuration screen as shown on the right.	 <p><b>Main Menu: Configuration -&gt; Server Groups</b></p> <p><b>Filter*</b></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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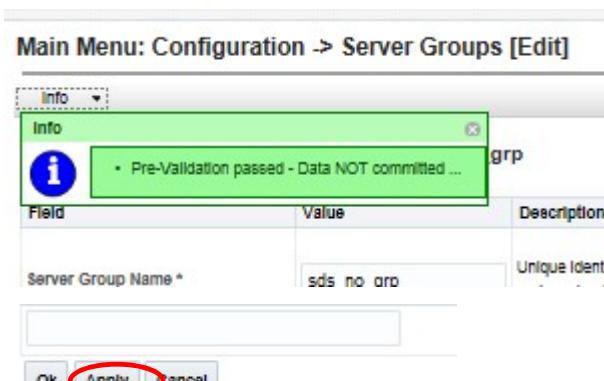
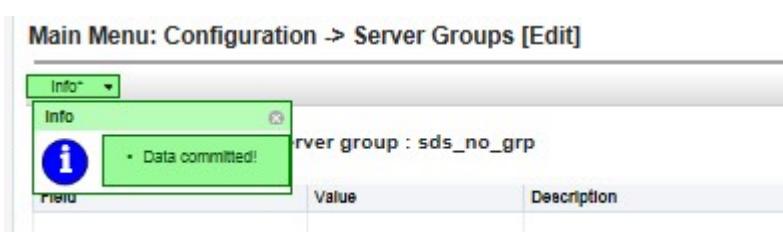
Procedure 4. Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result												
15.	<p><b>SDS Server NOAM A:</b></p> <p>1) Select the <b>Server Group</b> entry added in <b>Steps 6 – 12</b>. The line entry should now be highlighted in <b>GREEN</b>.</p> <p>2) Select the “<b>Edit</b>” dialogue button from the bottom left corner of the screen.</p>	<p><b>Main Menu: Configuration -&gt; Server Groups</b></p> <p><b>Filter*</b></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>  <span>▼</span> </p> <p> <input type="button" value="Insert"/> <input type="button" value="Edit"/> <input type="button" value="Delete"/> <input type="button" value="Report"/> </p> <p><b>NOTE:</b> 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	
Server Group Name	Level	Parent	Function	Connection Count	Servers									
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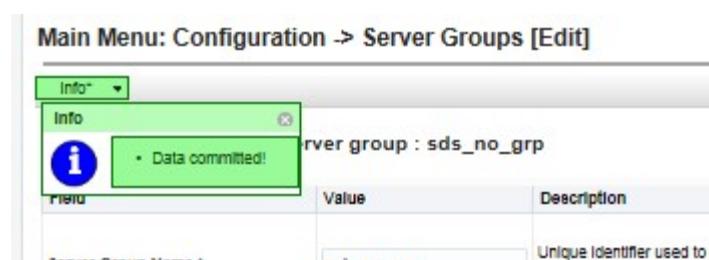
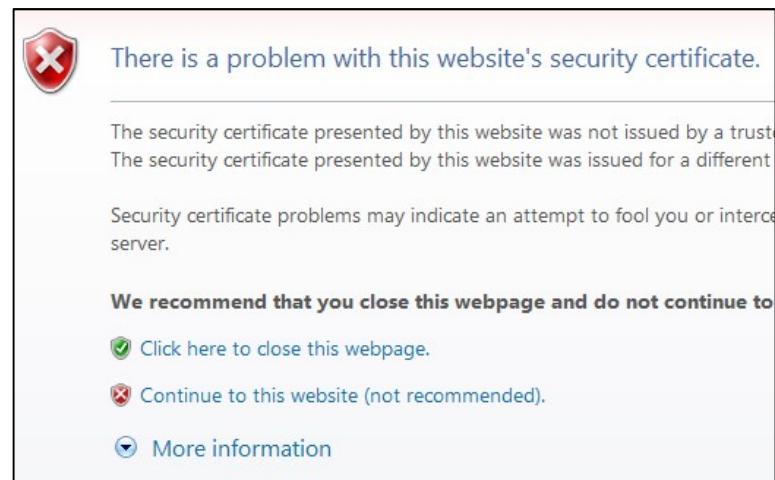
## Procedure 4. Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result																																							
16.	<p><b>SDS Server NOAM A:</b></p> <p><input type="checkbox"/></p> <p>The user will be presented with the “<b>Server Groups [Edit]</b>” screen as shown on the right.</p>	<p><b>Main Menu: Configuration -&gt; Server Groups [Edit]</b></p> <p><b>Modifying attributes of server group : sds_no_grp</b></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 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 and 8.]</td> </tr> <tr> <td style="text-align: center;"><b>SDS_NE</b> <input type="checkbox"/> Prefer Network Element as spare</td> <td></td> <td></td> </tr> <tr> <td>Server</td> <td>SG Inclusion</td> <td>Preferred HA Role</td> </tr> <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> <tr> <td style="text-align: center;"><b>VIP Assignment</b></td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">VIP Address</td> <td style="text-align: center;"><input type="button" value="Add"/></td> <td style="text-align: center;"></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>	Field	Value	Description	Server Group Name *	sds_no_grp	Unique Identifier used to label a Server Group. [Default 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 and 8.]	<b>SDS_NE</b> <input type="checkbox"/> Prefer Network Element as spare			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	<b>VIP Assignment</b>			VIP Address	<input type="button" value="Add"/>		<input type="button" value="Ok"/>	<input type="button" value="Apply"/>	<input type="button" value="Cancel"/>
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VIP Address	<input type="button" value="Add"/>																																								
<input type="button" value="Ok"/>	<input type="button" value="Apply"/>	<input type="button" value="Cancel"/>																																							
17.	<p><b>SDS Server NOAM A:</b></p> <p><input type="checkbox"/></p> <p>Select the “A” server and the “B” server from the list of “<b>Servers</b>” 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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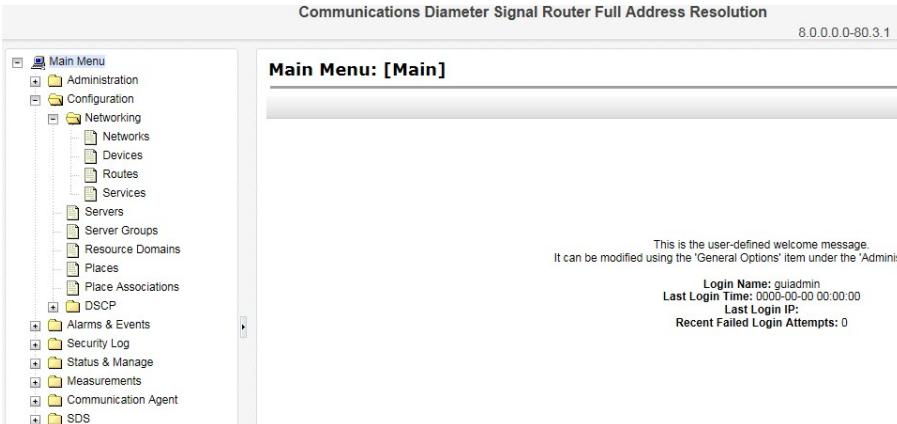
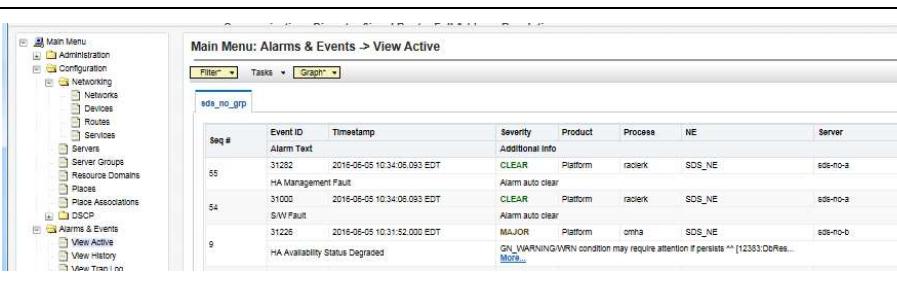
Procedure 4. Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM Site Only)

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

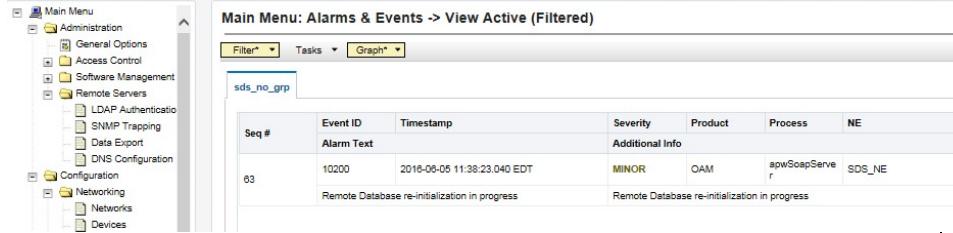
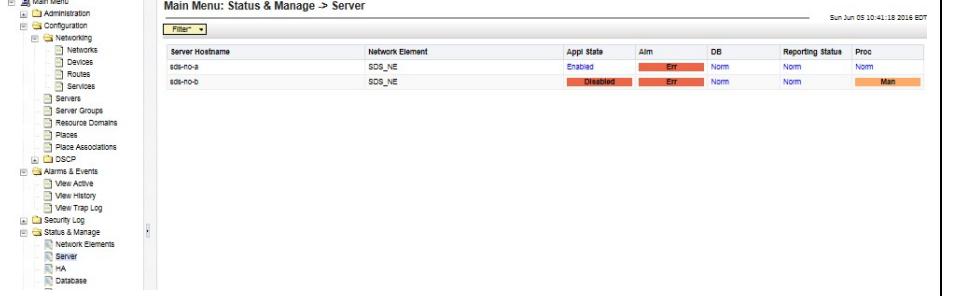
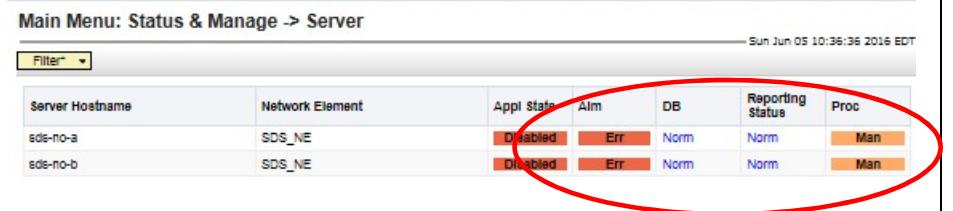
Procedure 4. Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result
23.	<b>SDS Server NOAM A:</b> <input type="checkbox"/> The user should be presented with a banner information message stating “Data committed”	
24.	<b>SDS Server NOAM A:</b> <input type="checkbox"/> Click the “Logout” link on the OAM A server GUI	
25.	<b>IMPORTANT:</b> <input type="checkbox"/> Wait at least <b>5 minutes</b> before proceeding on to the next Step.	<ul style="list-style-type: none"> <li>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.</li> <li>Allow a minimum of <b>5 minutes</b> before continuing to the next Step.</li> </ul>
26.	<b>SDS VIP:</b> <input type="checkbox"/> Launch an approved web browser and connect to the <b>XMI Virtual IP Address (VIP)</b> assigned in <b>STEP 21</b> to the SDS Server Group	

## Procedure 4. Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result																																								
27.	<p><b>SDS VIP:</b></p> <p><input type="checkbox"/></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>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 <a href="#">Oracle Software Web Browser Support Policy</a> 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><b>SDS VIP:</b></p> <p>The user should be presented the SDS Main Menu as shown on the right.</p>	 <p>This is the user-defined welcome message. It can be modified using the 'General Options' item under the 'Admin' 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><b>SDS VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b></p> <p>→ <b>Alarms &amp; Events</b></p> <p>→ <b>View Active</b></p> <p>...as shown on the right.</p>	 <table border="1"> <thead> <tr> <th>Seq #</th> <th>Event ID</th> <th>Timestamp</th> <th>Severity</th> <th>Product</th> <th>Process</th> <th>NE</th> <th>Server</th> </tr> </thead> <tbody> <tr> <td>55</td> <td>31232</td> <td>2016-05-05 10:34:06.093 EDT</td> <td>CLEAR</td> <td>Platform</td> <td>raclerk</td> <td>SDS_NE</td> <td>sd5-no-3</td> </tr> <tr> <td>54</td> <td>31000</td> <td>2016-05-05 10:34:08.093 EDT</td> <td>CLEAR</td> <td>Platform</td> <td>raclerk</td> <td>SDS_NE</td> <td>sd5-no-3</td> </tr> <tr> <td>9</td> <td>31226</td> <td>2016-05-05 10:31:32.000 EDT</td> <td>MAJOR</td> <td>Platform</td> <td>omaha</td> <td>SDS_NE</td> <td>sd5-no-3</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>GN_WARNING:WRN condition may require attention if persists ^ (12353:DbRes...)</td> </tr> </tbody> </table>	Seq #	Event ID	Timestamp	Severity	Product	Process	NE	Server	55	31232	2016-05-05 10:34:06.093 EDT	CLEAR	Platform	raclerk	SDS_NE	sd5-no-3	54	31000	2016-05-05 10:34:08.093 EDT	CLEAR	Platform	raclerk	SDS_NE	sd5-no-3	9	31226	2016-05-05 10:31:32.000 EDT	MAJOR	Platform	omaha	SDS_NE	sd5-no-3								GN_WARNING:WRN condition may require attention if persists ^ (12353:DbRes...)
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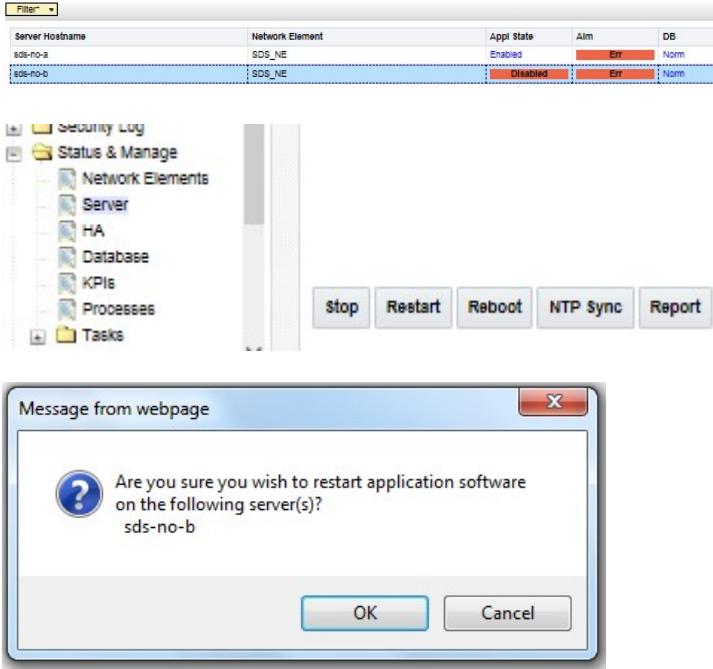
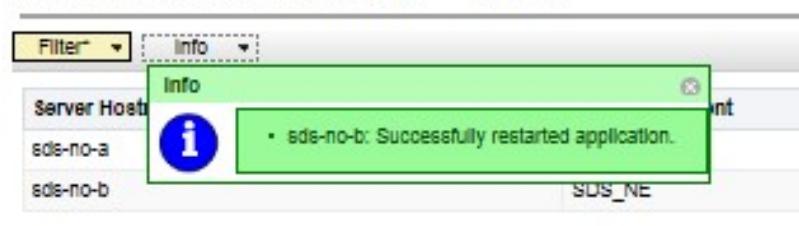
## Procedure 4. Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result
30.	<p><b>SDS VIP:</b>  <input type="checkbox"/> Verify whether or not <b>Event ID 10200</b> (<i>Remote Database re-initialization in progress</i>) is present.</p>	 <p><b>IF EVENT ID 10200 (Remote Database re-initialization in progress) IS PRESENT, DO NOT PROCEED TO THE NEXT STEP UNTIL THE ALARM CLEAR IS RECEIVED.</b></p>
31.	<p><b>SDS VIP:</b>  <input type="checkbox"/> Select...  <u>Main Menu</u>  → <b>Status &amp; Manage</b>  → <b>Server</b>  ...as shown on the right.</p>	
32.	<p><b>SDS VIP:</b></p> <ol style="list-style-type: none"> <li>1) The “A” and “B” SDS servers should now appear in the right panel.</li> <li>2) Verify that the “DB” status shows “Norm” and the “Proc” status shows “Man” for both servers before proceeding to the next Step.</li> </ol>	

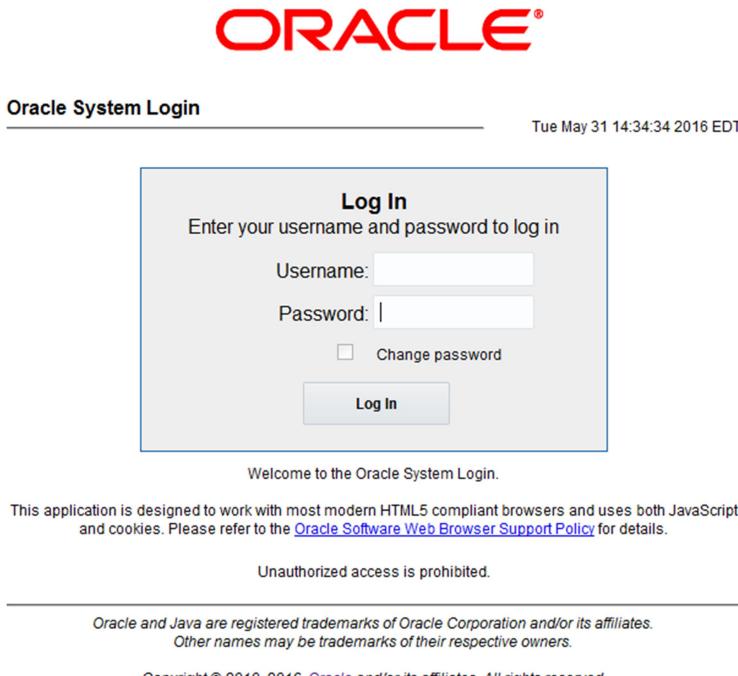
## Procedure 4. Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result
33.	<p><b>SDS VIP:</b></p> <p>1) Using the mouse, select <b>SDS Server NOAM A</b>. The line entry should now be highlighted in <b>GREEN</b>.</p> <p>2) Select the “<b>Restart</b>” dialogue button from the bottom left corner of the screen.</p> <p>3) Click the “<b>OK</b>” button on the confirmation dialogue box.</p> <p>4) The user should be presented with a confirmation message (in the banner area) for <b>SDS Server NOAM A</b> stating: <b>“Successfully restarted application”</b>.</p>	
34.	<p><b>SDS VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b> → <b>Status &amp; Manage</b> → <b>Server</b></p> <p>...as shown on the right.</p>	

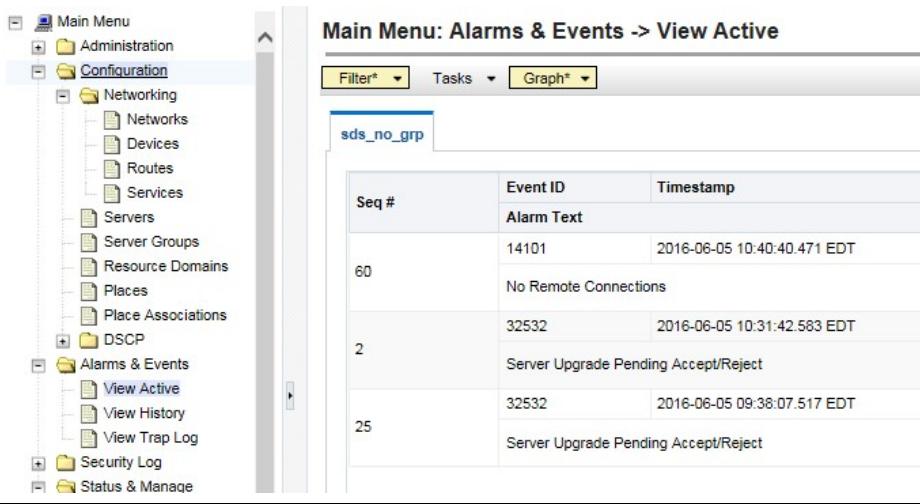
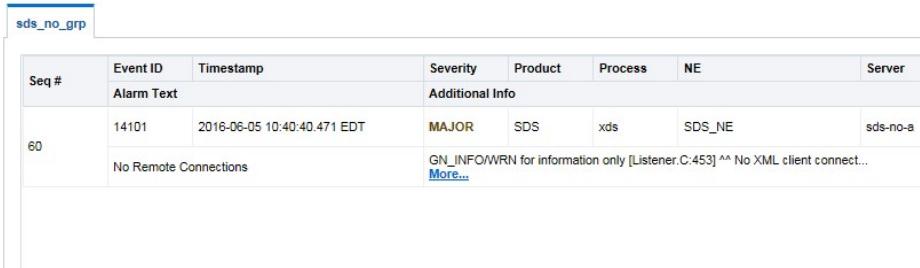
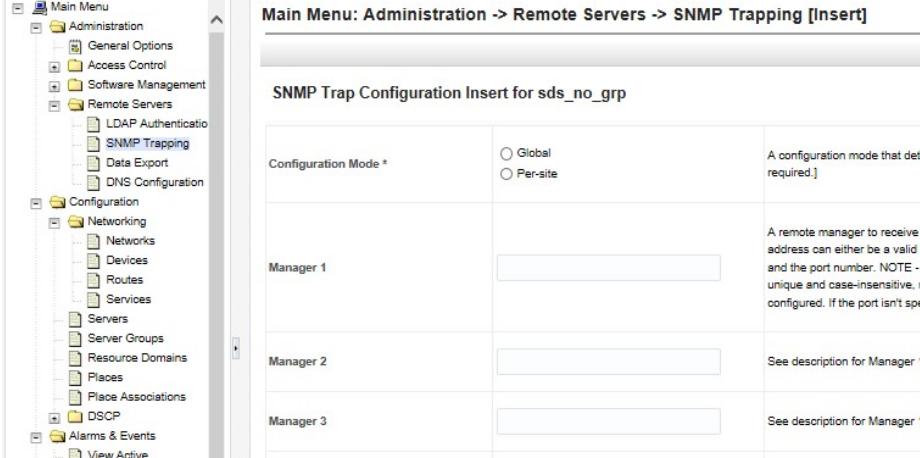
Procedure 4. Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result
35.	<p><b>SDS VIP:</b></p> <p>Verify that the “Appl State” now shows “Enabled” and that the “DB, Reporting Status &amp; Proc” status columns all show “Norm” for SDS Server NOAM A before proceeding to the next Step.</p>	
36.	<p><b>SDS VIP:</b></p> <p>1) Using the mouse, select SDS Server B. The line entry should now be highlighted in GREEN.</p> <p>2) Select the “Restart” dialogue button from the bottom left corner of the screen.</p> <p>3) Click the “OK” button on the confirmation dialogue box.</p> <p>4) The user should be presented with a confirmation message (in the banner area) for SDS Server B stating: “Successfully restarted application”.</p> <p><b>NOTE:</b> The user may need to use the vertical scroll-bar in order to make the “Restart” dialogue button visible.</p>	 

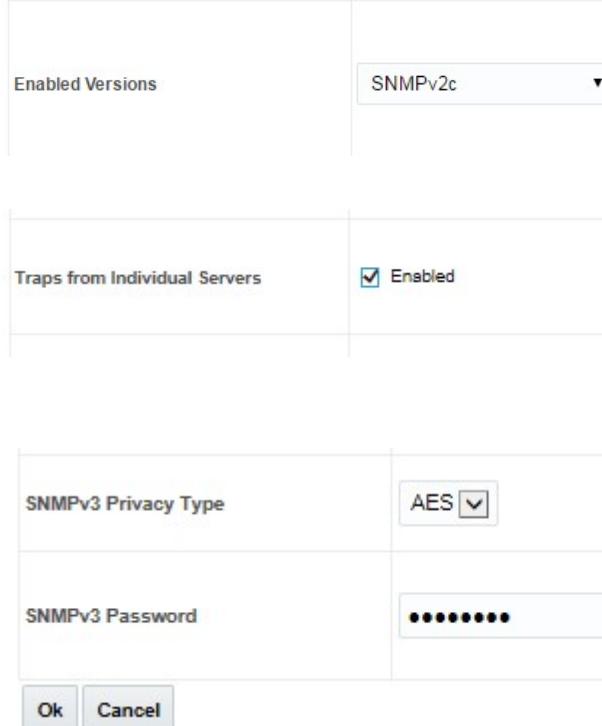
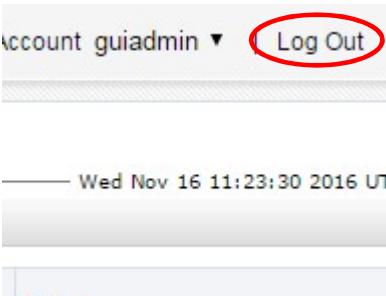
## Procedure 4. Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result
37.	<p><b>SDS VIP:</b></p> <p>Verify that the “<b>Appl State</b>” now shows “<b>Enabled</b>” and that the “<b>DB, Reporting Status &amp; Proc</b>” status columns all show “<b>Norm</b>” for <b>SDS Server NOAM A</b> and <b>SDS Server NOAM B</b> before proceeding to the next Step.</p>	
38.	<p><b>IMPORTANT:</b></p> <p>Wait at least <b>5 minutes</b> before proceeding on to the next Step.</p>	<ul style="list-style-type: none"> <li>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.</li> <li>Allow a minimum of <b>5 minutes</b> before continuing to the next Step.</li> </ul>
39.	<p><b>SDS VIP:</b></p> <p>If there is a context switch, you may be required to login again.</p> <p>Login to the GUI using the default user and password.</p>	

## Procedure 4. Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result																								
40.	<b>SDS VIP:</b> <input type="checkbox"/> Select... <b>Main Menu</b> <b>→ Alarms &amp; Events</b> <b>→ View Active</b> ...as shown on the right.	 <p><b>Main Menu: Alarms &amp; Events -&gt; View Active</b></p> <p><b>sds_no_grp</b></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.	<b>SDS VIP:</b> <input type="checkbox"/> Verify that <b>Event ID 14101</b> ("No remote provisioning clients are connected") is the only alarm present on the system at this time.	 <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>GN_INFO/WRN for information only [Listener.C:453] ^^ No XML client connect...</td> <td><a href="#">More...</a></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					GN_INFO/WRN for information only [Listener.C:453] ^^ No XML client connect...	<a href="#">More...</a>
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42.	<b>SDS VIP:</b> <input type="checkbox"/> Select... <b>Main Menu</b> <b>→ Administration</b> <b>→ Remote Servers</b> <b>→ SNMP Trapping</b> ...as shown on the right.	 <p><b>Main Menu: Administration -&gt; Remote Servers -&gt; SNMP Trapping [Insert]</b></p> <p><b>SNMP Trap Configuration Insert for sds_no_grp</b></p> <table border="1"> <thead> <tr> <th>Configuration Mode *</th> <th><input type="radio"/> Global</th> <th><input type="radio"/> Per-site</th> <th>A configuration mode that defines required.</th> </tr> </thead> <tbody> <tr> <td>Manager 1</td> <td></td> <td></td> <td>A remote manager to receive address can either be a valid IP and the port number. NOTE - unique and case-insensitive, port configured. If the port isn't specified, the default port is used.</td> </tr> <tr> <td>Manager 2</td> <td></td> <td></td> <td>See description for Manager 1</td> </tr> <tr> <td>Manager 3</td> <td></td> <td></td> <td>See description for Manager 1</td> </tr> </tbody> </table>	Configuration Mode *	<input type="radio"/> Global	<input type="radio"/> Per-site	A configuration mode that defines required.	Manager 1			A remote manager to receive address can either be a valid IP and the port number. NOTE - unique and case-insensitive, port configured. If the port isn't specified, the default port is used.	Manager 2			See description for Manager 1	Manager 3			See description for Manager 1								
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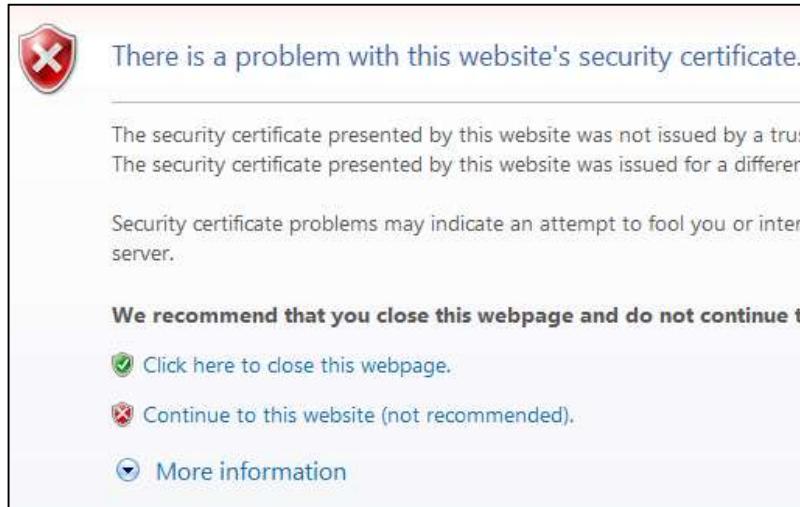
Procedure 4. Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM Site Only)

Step	Procedure	Result
43.	<p><b>SDS VIP:</b></p> <p>1) Enable Version field changed to SNMPv2c before you select OK</p> <p>2) Using the cursor, place a “check” in the check box for “<b>Traps from Individual Servers</b>”.</p> <p>3) Click the “<b>Ok</b>” dialogue button located at the bottom of the right panel.</p>	 <p>Selectively "SNMPv2c" only. 3) "SN SNMPv3 ]</p> <p>Enable or disable SN Network OAM&amp;P ser</p>
44.	<p><b>SDS VIP:</b></p> <p>Click the “<b>Logout</b>” link on the server GUI.</p>	
<b>THIS PROCEDURE HAS BEEN COMPLETED</b>		

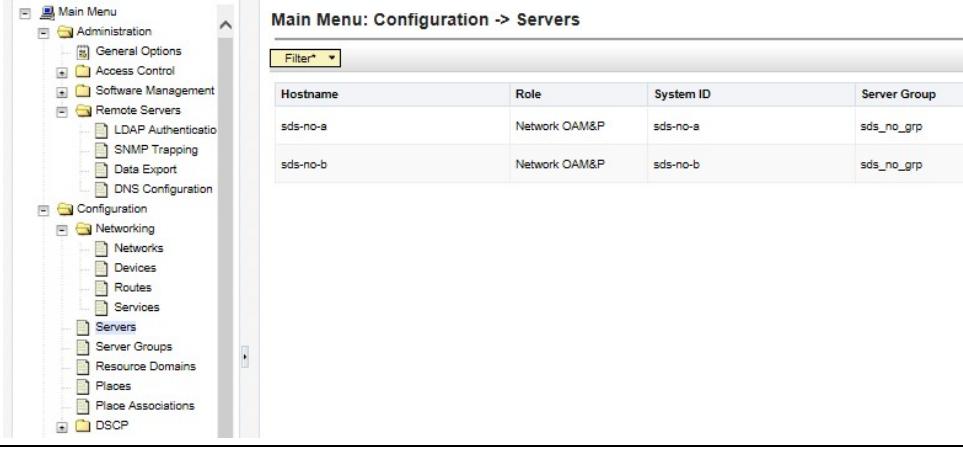
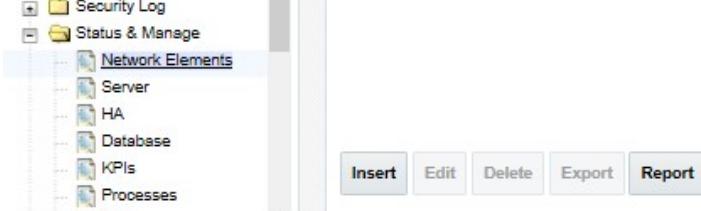
## 5.3 Query Server Installation (All SDS NOAM Sites)

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.

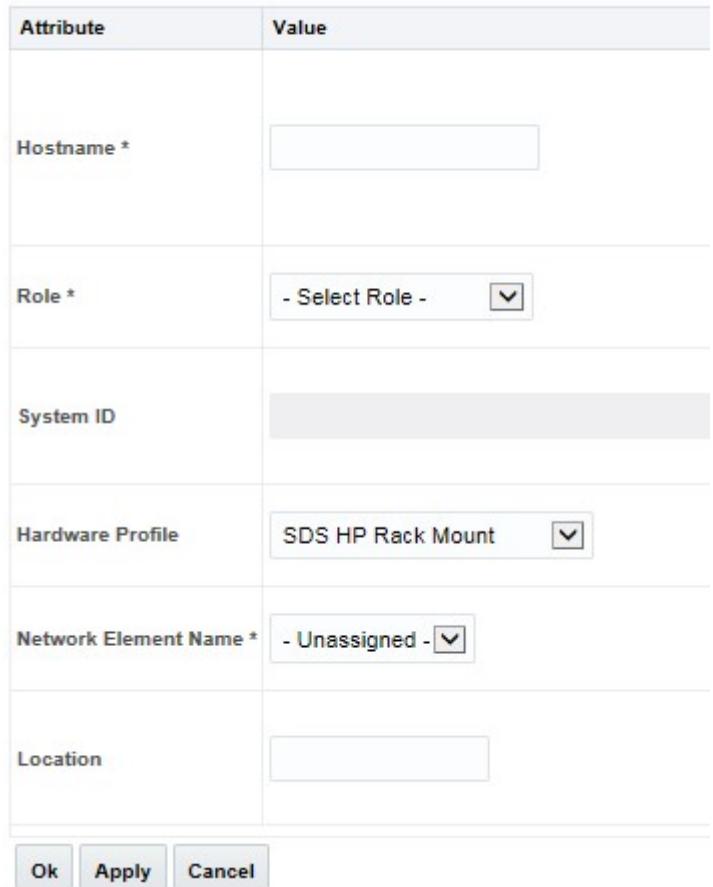
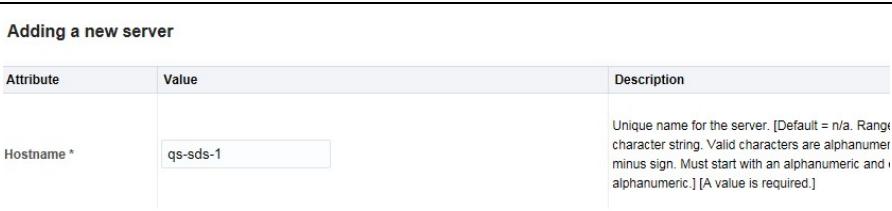
### Procedure 5. Configuring the Query Server (All SDS NOAM Sites)

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

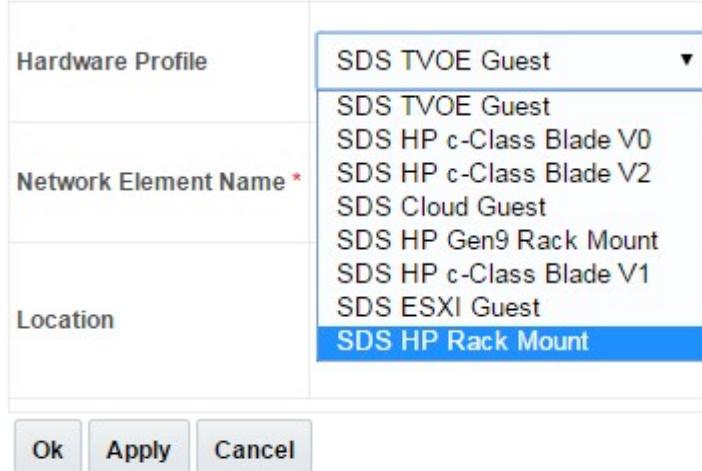
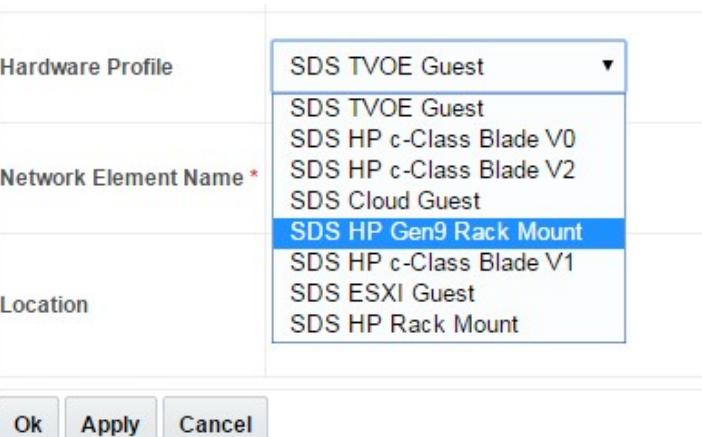
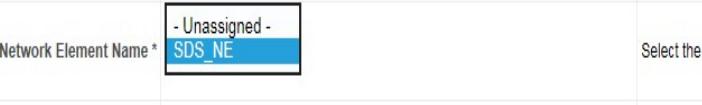
## Procedure 5. Configuring the Query Server (All SDS NOAM Sites)

Step	Procedure	Result															
3.	<p><b>Primary SDS VIP:</b>  <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><b>Main Menu: [Main]</b></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><b>Primary SDS VIP:</b>  <input type="checkbox"/> Select...  <b>Main Menu</b>  <b>→ Configuration</b>  <b>→ Servers</b>  ...as shown on the right.</p>	 <p><b>Main Menu: Configuration -&gt; Servers</b></p> <table border="1"> <thead> <tr> <th>Filter*</th> <th>Hostname</th> <th>Role</th> <th>System ID</th> <th>Server Group</th> </tr> </thead> <tbody> <tr> <td></td> <td>sds-no-a</td> <td>Network OAM&amp;P</td> <td>sds-no-a</td> <td>sds_no_grp</td> </tr> <tr> <td></td> <td>sds-no-b</td> <td>Network OAM&amp;P</td> <td>sds-no-b</td> <td>sds_no_grp</td> </tr> </tbody> </table>	Filter*	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
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5.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Select the “Insert” dialogue button.</p>	 <p><b>Network Elements</b></p> <p>Insert Edit Delete Export Report</p>															

## Procedure 5. Configuring the Query Server (All SDS NOAM Sites)

Step	Procedure	Result														
6.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> The user is now presented with the “Adding a new server” configuration screen.</p>	<p><b>Adding a new server</b></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><input type="button" value="Select Role"/></td> </tr> <tr> <td>System ID</td> <td><input type="text"/></td> </tr> <tr> <td>Hardware Profile</td> <td><input type="button" value="SDS HP Rack Mount"/></td> </tr> <tr> <td>Network Element Name *</td> <td><input type="button" value="Unassigned"/></td> </tr> <tr> <td>Location</td> <td><input type="text"/></td> </tr> </tbody> </table> <p><input type="button" value="Ok"/> <input type="button" value="Apply"/> <input type="button" value="Cancel"/></p>	Attribute	Value	Hostname *	<input type="text"/>	Role *	<input type="button" value="Select Role"/>	System ID	<input type="text"/>	Hardware Profile	<input type="button" value="SDS HP Rack Mount"/>	Network Element Name *	<input type="button" value="Unassigned"/>	Location	<input type="text"/>
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Location	<input type="text"/>															
7.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Input the assigned “hostname” for the Query Server.</p>	<p><b>Adding a new server</b></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="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 *	<input type="text" value="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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8.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Select “QUERY SERVER” for the server “Role” from the pull-down menu.</p>	 <table border="1"> <thead> <tr> <th>Role *</th> <th><input type="button" value="Select Role"/></th> <th>Select the function of the server [A value is required.]</th> </tr> </thead> <tbody> <tr> <td>System ID</td> <td><input type="text"/></td> <td>System ID for the NOAMP or SOAM server. [Default = n/a. Range = A 64-character string. Valid value is any text string.]</td> </tr> </tbody> </table>	Role *	<input type="button" value="Select Role"/>	Select the function of the server [A value is required.]	System ID	<input type="text"/>	System ID for the NOAMP or SOAM server. [Default = n/a. Range = A 64-character string. Valid value is any text string.]								
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## Procedure 5. Configuring the Query Server (All SDS NOAM Sites)

Step	Procedure	Result
9.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> For <b>GEN8</b> Server  Select “<b>SDS HP Rack Mount</b>” for the <b>Hardware Profile</b> for the SDS from the pull-down menu.</p> <p>For <b>GEN9</b> Server:  Select “<b>SDS HP GEN9 Rack Mount</b>” for the <b>Hardware Profile</b> for the SDS from the pull-down menu.</p>	<p>For GEN8 select “<b>SDS HP Rack Mount</b>” from the <b>Hardware Profile</b> pull-down menu.</p>  <p>For GEN9 Server, Select “<b>SDS HP GEN9 Rack Mount</b>” from the <b>Hardware Profile</b> pull-down menu.</p> 
10.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Select the <b>Network Element Name</b> of the SDS site where the Query Server is physically located.</p>	
11.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Enter the site location.</p>	 <p><b>Note:</b> Location is an optional field.</p>

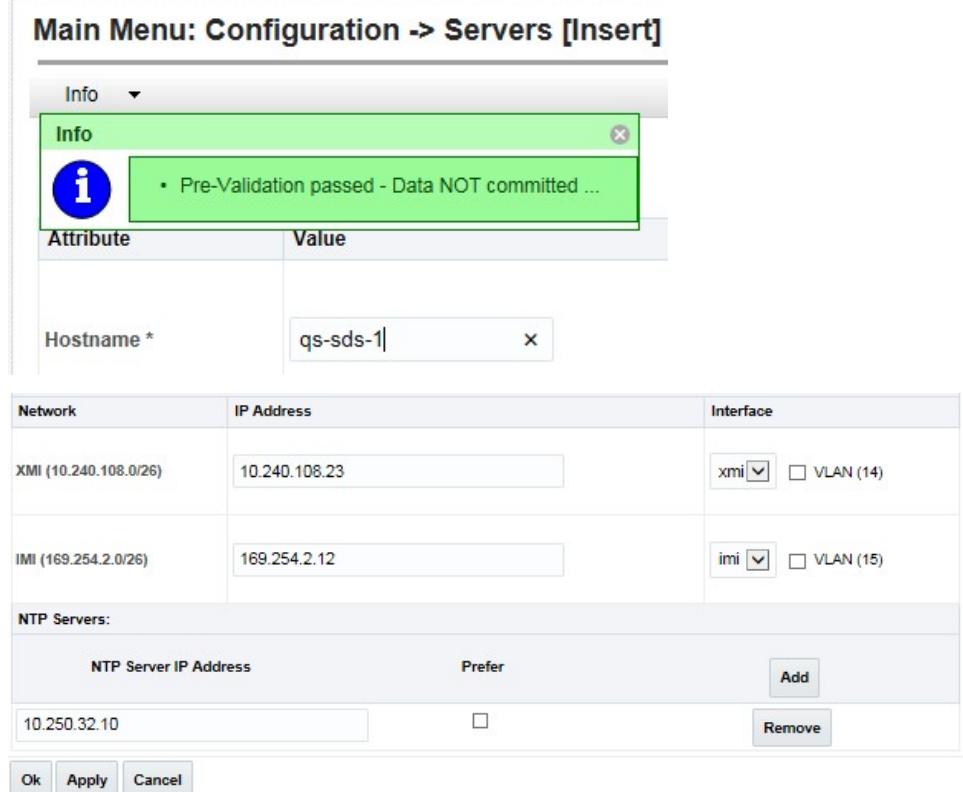
## Procedure 5. Configuring the Query Server (All SDS NOAM Sites)

Step	Procedure	Result																																	
12.	<p><b>SDS Server NOAM A:</b></p> <p>1) Enter the <b>MGMT_VLAN</b> IP address for the Query Server.</p> <p>2) Set the <b>MGMT_VLAN</b> Interface to “<b>bond0</b>” and “<b>check</b>” the VLAN checkbox.</p> <p>3) Enter the <b>IMI</b> IP address for the Query Server.</p> <p>4) Set the <b>IMI</b> Interface to “<b>bond0</b>” and “<b>check</b>” 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 checked="" type="checkbox"/> VLAN (3)</td> </tr> <tr> <td>INTERNALIMI (192.168.2.0/24)</td> <td>192.168.2.100</td> <td>bond0 <input checked="" 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>MGMT_VLAN</td> <td>169.254.1.13</td> <td rowspan="2">bond0</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>IMI</td> <td>169.254.100.13</td> <td></td> </tr> <tr> <td rowspan="2">SDS-QS (DR NE)</td> <td>MGMT_VLAN</td> <td>169.254.1.16</td> <td rowspan="2">bond0</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>IMI</td> <td>169.254.100.16</td> <td></td> </tr> </tbody> </table> <p><b>NOTE_1:</b> These IP addresses are based on the info in the NAPD and the Network Element Config file.</p> <p><b>NOTE_2:</b> The <b>MGMT_VLAN</b> should only be present when 4948E-F AggregationSwitches are deployed with SDS NOAM / Query Server RMS. If the <b>MGMT_VLAN</b> is not present, the <b>IMI</b> 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 checked="" type="checkbox"/> VLAN (3)	INTERNALIMI (192.168.2.0/24)	192.168.2.100	bond0 <input checked="" type="checkbox"/> VLAN (4)	Query Server	Network	IP Address	Interface	VLAN Checkbox	SDS-QS (Primary NE)	MGMT_VLAN	169.254.1.13	bond0	<input checked="" type="checkbox"/>	IMI	169.254.100.13		SDS-QS (DR NE)	MGMT_VLAN	169.254.1.16	bond0	<input checked="" type="checkbox"/>	IMI	169.254.100.16	
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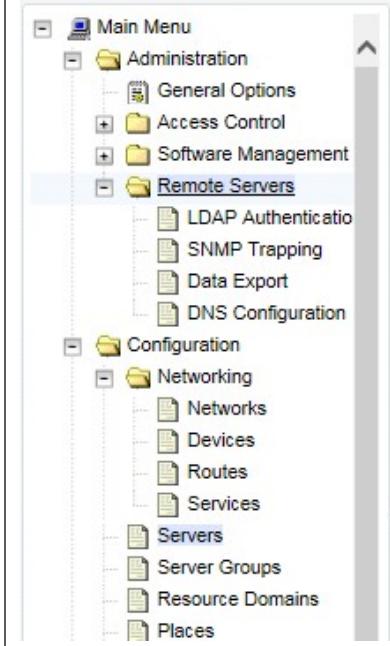
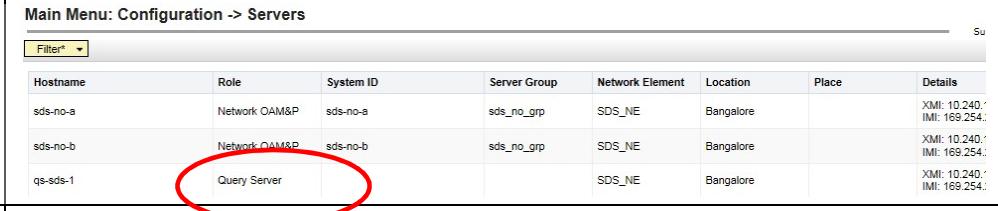
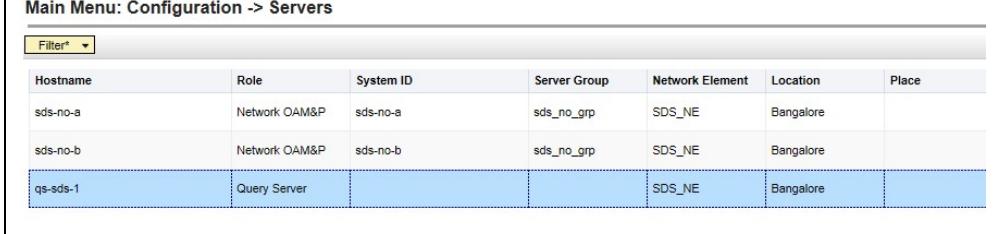
## Procedure 5. Configuring the Query Server (All SDS NOAM Sites)

Step	Procedure	Result																							
13.	<p>1) Enter the customer assigned <b>XMI IP</b> address for the Query Server.</p> <p><b>Layer 3</b> <b>(No VLAN tagging used for XMI)</b></p> <p>2) Set the <b>XMI</b> Interface to “<b>bond1</b>” and “<b>DO NOT check</b>” the VLAN checkbox.</p> <p>- OR -</p> <p><b>Layer 2</b> <b>(VLAN tagging used for XMI)</b></p> <p>2) Set the <b>XMI</b> Interface to “<b>bond0</b>” and “<b>check</b>” the VLAN checkbox.</p>	<div style="display: flex; justify-content: space-between;"> <div style="flex: 1; border: 1px solid #ccc; padding: 5px; margin-right: 10px;">INTERNALXMI (10.240.20.0/22)</div> <div style="flex: 1; border: 1px solid #ccc; padding: 5px; margin-right: 10px;">10.240.20.2</div> <div style="flex: 1; border: 1px solid #ccc; padding: 5px; margin-right: 10px;">bond1</div> <div style="flex: 1; border: 1px solid #ccc; padding: 5px; margin-right: 10px;">VLAN (3)</div> </div> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #ffffcc;"> <th style="padding: 5px;">Query Server</th> <th style="padding: 5px;">Network</th> <th style="padding: 5px;">VLAN tagging (on XMI network)</th> <th style="padding: 5px;">Interface</th> <th style="padding: 5px;">VLAN Checkbox</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px; text-align: center;">SDS-QS <i>(Primary &amp; DR)</i></td> <td style="padding: 5px; text-align: center;">XMI</td> <td style="padding: 5px; text-align: center;">No</td> <td style="padding: 5px; text-align: center;">bond1</td> <td style="padding: 5px; text-align: center;"></td> </tr> <tr> <td style="padding: 5px; text-align: center;"></td> <td style="padding: 5px; text-align: center;"></td> <td style="padding: 5px; text-align: center;">Yes</td> <td style="padding: 5px; text-align: center;">bond0</td> <td style="padding: 5px; text-align: center;"></td> </tr> </tbody> </table> <p><b>!!! CAUTION !!!</b></p> <p><i>It is crucial that the correct network configuration be selected in Steps 12 &amp; 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 <i>(Primary &amp; DR)</i>	XMI	No	bond1				Yes	bond0									
Query Server	Network	VLAN tagging (on XMI network)	Interface	VLAN Checkbox																					
SDS-QS <i>(Primary &amp; DR)</i>	XMI	No	bond1																						
		Yes	bond0																						
14.	<p><b>SDS Server NOAM A:</b></p> <p>1) Click the “<b>NTP Servers:</b>” “<b>Add</b>” dialogue button.</p> <p>2) Enter the <b>NTP Server IP Address</b> for an NTP Server.</p> <p>3) Enter 3 NTP Server <b>IP address</b>, repeat (1) and (2) to enter it.</p> <p>4) Optionally, click the “<b>Prefer</b>” checkbox to prefer one NTP Server over the other.</p>	<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: 70px; padding: 5px;">NTP Server IP Address</td> <td style="width: 20px; padding: 5px;">Prefer</td> <td style="width: 10px; padding: 5px; text-align: center;"></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: 70px; padding: 5px;">NTP Server IP Address</td> <td style="width: 20px; padding: 5px;">Prefer</td> <td style="width: 10px; padding: 5px; text-align: center;"></td> </tr> <tr> <td style="padding: 5px;">10.250.32.10</td> <td style="padding: 5px;"><input type="checkbox"/></td> <td style="padding: 5px; text-align: center;"></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: 70px; padding: 5px;">NTP Server IP Address</td> <td style="width: 20px; padding: 5px;">Prefer</td> <td style="width: 10px; padding: 5px; text-align: center;"></td> </tr> <tr> <td style="padding: 5px;">10.250.32.51</td> <td style="padding: 5px;"><input type="checkbox"/></td> <td style="padding: 5px; text-align: center;"></td> </tr> <tr> <td style="padding: 5px;">10.250.32.10</td> <td style="padding: 5px; text-align: center;"><input checked="" type="checkbox"/></td> <td style="padding: 5px; text-align: center;"></td> </tr> </table> </div>	NTP Server IP Address	Prefer		NTP Server IP Address	Prefer		10.250.32.10	<input type="checkbox"/>		NTP Server IP Address	Prefer		10.250.32.51	<input type="checkbox"/>		10.250.32.10	<input checked="" type="checkbox"/>						
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## Procedure 5. Configuring the Query Server (All SDS NOAM Sites)

Step	Procedure	Result
15.	<p><b>Primary SDS VIP:</b></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><b>Primary SDS VIP:</b></p> <p>If the values provided match the network ranges assigned to the NE, the user will receive a banner information message showing that the data has been validated and committed</p>	

## Procedure 5. Configuring the Query Server (All SDS NOAM Sites)

Step	Procedure	Result																																
17.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Select...</p> <p><b>Main Menu</b>  <b>→ Configuration</b>  <b>→ Servers</b></p> <p>...as shown on the right.</p>	 <p><b>Main Menu: Configuration -&gt; Servers</b></p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> </tr> </thead> <tbody> <tr> <td>sds-no-a</td> <td>Network OAM&amp;P</td> </tr> <tr> <td>sds-no-b</td> <td>Network OAM&amp;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><b>Primary SDS VIP:</b>  <input type="checkbox"/> The “Configuration → Servers” screen now shows the newly added Query Server in the list.</p>	 <p><b>Main Menu: Configuration -&gt; Servers</b></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&amp;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>sds-no-b</td> <td>Network OAM&amp;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>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>	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
Hostname	Role	System ID	Server Group	Network Element	Location	Place	Details																											
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qs-sds-1	Query Server			SDS_NE	Bangalore		XMI: 10.240.1 IMI: 169.254.1																											
19.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Using the mouse, select the Query Server. The line entry containing the Query Server should now be highlighted in <b>BLUE</b>.</p>	 <p><b>Main Menu: Configuration -&gt; Servers</b></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&amp;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&amp;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></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_NE	Bangalore					
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## Procedure 5. Configuring the Query Server (All SDS NOAM Sites)

Step	Procedure	Result
20.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Select the “Export” dialogue button.</p>	<p><b>Main Menu: Configuration -&gt; Servers</b></p> <p>Filter* <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"/></p>
21.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> The user will receive a banner information message showing a download link for the Query Server configuration data.</p> <p>Click on the word “downloaded” to download and save the file.</p>	<p><b>Main Menu: Configuration -&gt; Servers</b></p>
22.	<p><b>Primary SDS VIP:</b></p> <ol style="list-style-type: none"> <li>1) Click the “Save” dialogue button.</li> <li>2) Save the Query Server configuration file to a USB flash drive.</li> </ol>	
23.	<p><b>Query Server:</b>  <input type="checkbox"/> Access the server console.</p>	<p>Connect to the <b>Query Server</b> console using one of the access methods described in <b>Section 2.3</b>.</p>

## Procedure 5. Configuring the Query Server (All SDS NOAM Sites)

Step	Procedure	Result
24.	<b>Query Server:</b> <input type="checkbox"/> 1) Access the command prompt. 2) Log into the server as the "admusr" user.	login: <b>admusr</b> Using keyboard-interactive authentication. Password: <b>&lt;admusr_password&gt;</b>
25.	<b>Query Server:</b> <input type="checkbox"/> Insert the USB flash drive containing the server configuration file into the USB port on the front panel of the Query Server.	 <b>Figure 8 – HP DL380 GEN8: Front Panel (USB Port)</b>
		 <b>Figure 9 – HP DL380 GEN9: Front Panel (USB Port)</b>
26.	<b>Query Server:</b> <input type="checkbox"/> Output similar to that shown on the right will appear as the USB flash drive is inserted into the <b>SDS Server</b> 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 &lt;ENTER&gt;</pre> <p><b>NOTE:</b> Press the <b>&lt;ENTER&gt;</b> key to return to the command prompt.</p>
27.	<b>Query Server:</b> <input type="checkbox"/> 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><b>NOTE:</b> Search <b>df</b> for the device named in the previous step's output.</p>
28.	<b>Query Server:</b> <input type="checkbox"/> Copy the configuration file	<pre>\$ sudo cp -p /media/sdb1/TKLCConfigData.qs-mrsvnc-1.sh /var/TKLC/db/filemgmt/</pre>

## Procedure 5. Configuring the Query Server (All SDS NOAM Sites)

Step	Procedure	Result
29.	<p><b>Query Server:</b></p> <p><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.</p>	<p><b>Example:</b> TKLCConfigData&lt;.server_hostname&gt;.sh → will translate to →TKLCConfigData.sh</p> <pre>\$ sudo cp -p /var/TLKC/db/filemgmt/TKLCConfigData.qs-mrsvnc-1.sh /var/tmp/TKLCConfigData.sh</pre> <p><b>NOTE:</b> The server will poll the /var/tmp directory for the presence of the configuration file and automatically execute it when found.</p>
30.	<p><b>Query Server:</b></p> <p><input type="checkbox"/> After the script completes, a broadcast message will be sent to the terminal.</p> <p><b>NOTE:</b> This step varies by server and may take 3...20 minutes to complete.</p>	<p><b>*** NO OUTPUT FOR ≈ 3-20 MINUTES ***</b></p> <p>Broadcast message from admusr (Mon Dec 14 16:17:13 2009): Server configuration completed successfully! See /var/TKLC/appw/logs/Process/install.log for details. Please remove the USB flash drive if connected and reboot the server.</p>
31.	<p><b>Query Server:</b></p> <p><input type="checkbox"/> Remove the USB flash drive from the USB port on the front panel of <b>Query Server</b>.</p> <p><b>CAUTION:</b> It is important that the USB flash drive be removed from the server before continuing on to the next step.</p>	 <p><b>Figure 10 – HP DL380 GEN8: Front Panel (USB Port)</b></p>  <p><b>Figure 11 – HP DL380 GEN9: Front Panel (USB Port)</b></p>
32.	<p><b>Query Server:</b></p> <p><input type="checkbox"/> Ignore the output shown and press the &lt;ENTER&gt; key to return to the command prompt.</p>	<p>Broadcast message from admusr (Mon Dec 14 16:17:13 2009): Server configuration completed successfully! See /var/TKLC/appw/logs/Process/install.log for details.</p> <p>Please remove the USB flash drive if connected and reboot the server. &lt;ENTER&gt;</p>

## Procedure 5. Configuring the Query Server (All SDS NOAM Sites)

Step	Procedure	Result
33.	<b>SDS Server NOAM A or B:</b>  Verify that the desired Time Zone is currently in use.	\$ <code>date</code> Mon Aug 10 19:34:51 UTC 2015
34. <input type="checkbox"/>	<b>SDS Server NOAM A or B:</b>  If the desired Time Zone was not presented in the previous step...  <b>Configure the Time Zone.</b>  Otherwise, skip to the next step.	<b>Example:</b> \$ <code>sudo set_ini_tz.pl &lt;time_zone&gt;</code>  <b>NOTE:</b> 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 <b>Appendix G</b> for a list of valid time zones.  \$ <code>sudo set_ini_tz.pl "Etc/UTC"</code>
35. <input type="checkbox"/>	<b>Query Server:</b>  Initiate a reboot of the Query Server.	\$ <code>sudo init 6</code>
36. <input type="checkbox"/>	<b>Query Server:</b>  Output similar to that shown on the right may be observed as the server initiates a reboot.	[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 conflicts. 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
37. <input type="checkbox"/>	<b>Query Server:</b>  1) Access the command prompt.  2) Login as the "admusr" user.	login: <code>admusr</code> Using keyboard-interactive authentication. Password: <code>&lt;admusr_password&gt;</code>

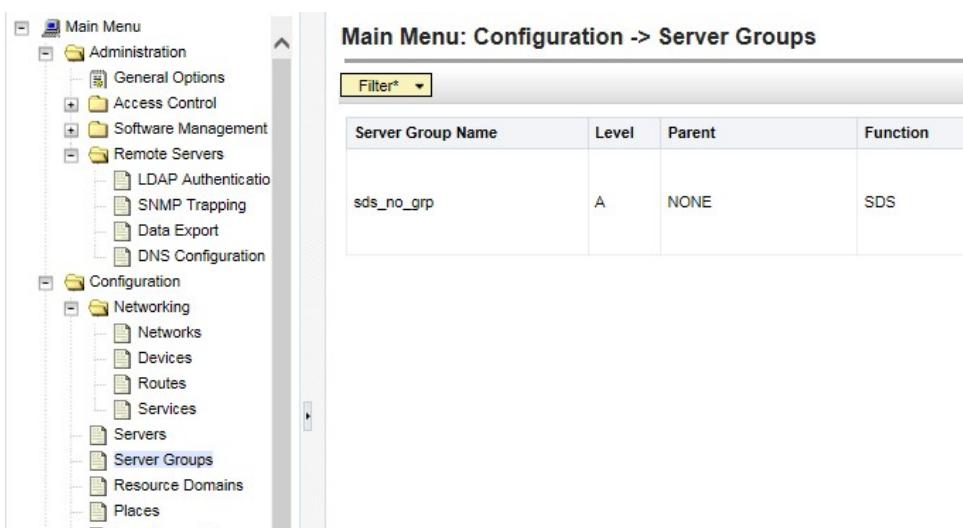
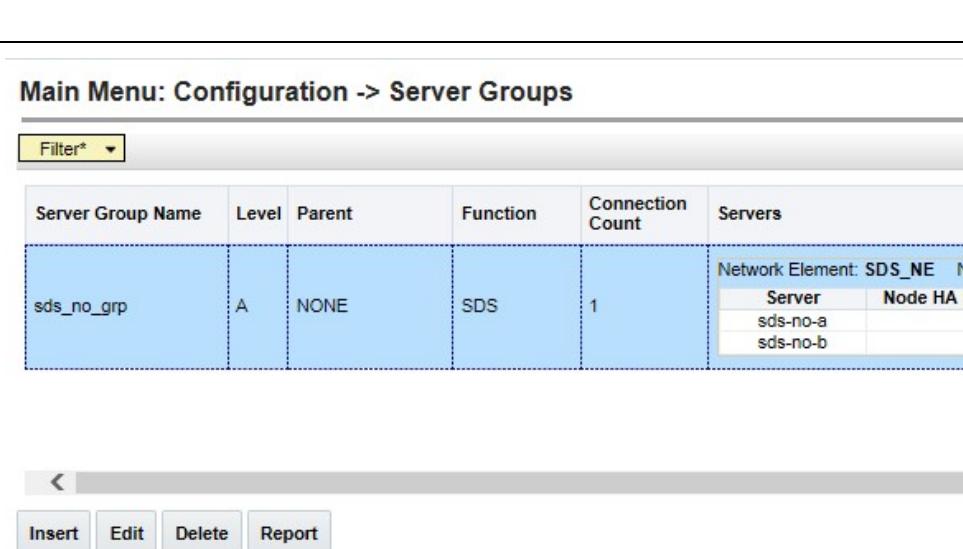
## Procedure 5. Configuring the Query Server (All SDS NOAM Sites)

Step	Procedure	Result
38.	<b>Query Server:</b> 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.	<b>Query Server:</b> <input type="checkbox"/> <b>1) Verify that the IMI IP address input in Step 12 has been applied to “bond0.4”.</b>  <b>2) Verify that the XMI IP address input in Step 13 has been applied to “bond1”.</b>	<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 5. Configuring the Query Server (All SDS NOAM Sites)

Step	Procedure	Result
40.	<b>Query Server:</b> <input type="checkbox"/> From the <b>Query Server</b> , “ping” the <b>IMI IP address</b> configured for <b>SDS Server NOAM A</b> .	<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.	<b>Query Server:</b> <input type="checkbox"/> Use “ping” to verify that the <b>Query Server</b> can reach the configured <b>XMI Gateway address</b> .	<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.	<b>Query Server:</b> <input type="checkbox"/> Use the “ <b>ntpq</b> ” 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.	<b>Query Server:</b> <input type="checkbox"/> Execute a “ <b>syscheck</b> ” 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>

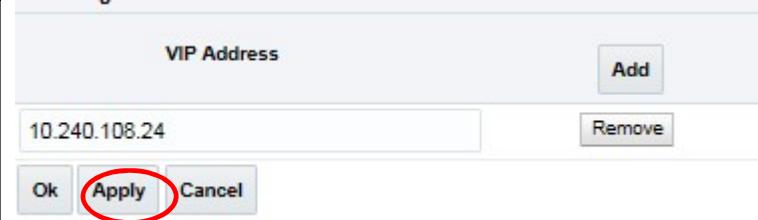
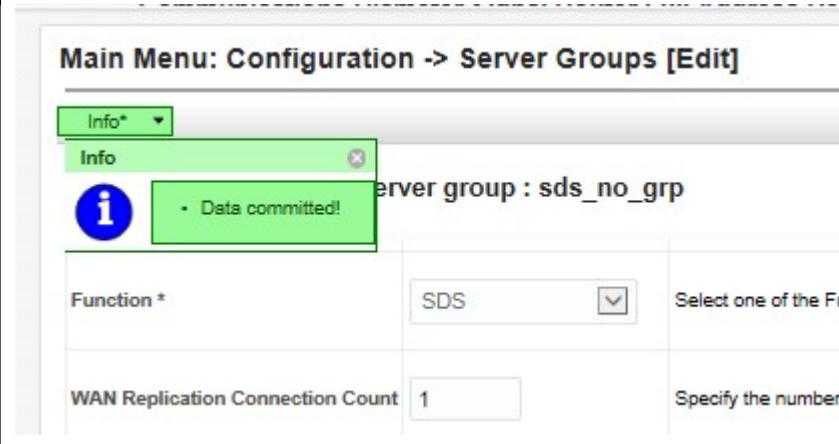
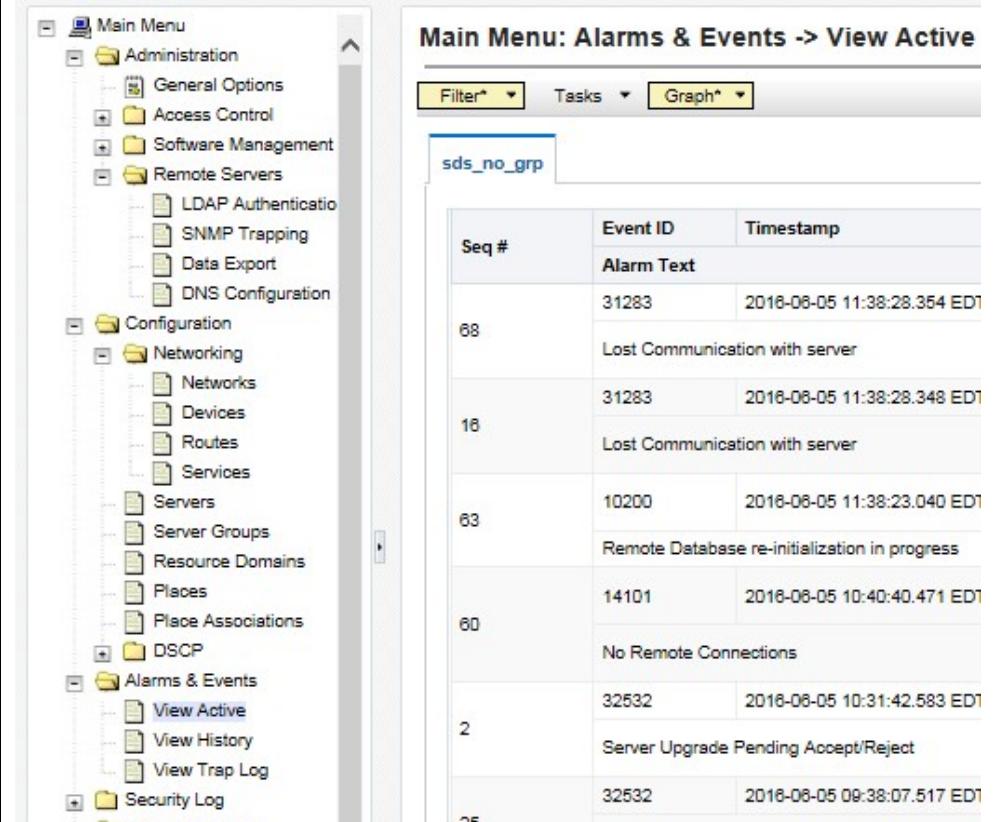
## Procedure 5. Configuring the Query Server (All SDS NOAM Sites)

Step	Procedure	Result																					
44.	<b>Query Server:</b> <input type="checkbox"/> Exit to the login prompt.	<pre>\$ exit</pre>																					
45.	<b>Primary SDS VIP:</b> <input type="checkbox"/> Select...  <b>Main Menu</b> <b>→ Configuration</b> <b>→ Server Groups</b>  ...as shown on the right.	 <p><b>Main Menu: Configuration -&gt; Server Groups</b></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>sds_no_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> </tr> </tbody> </table>	Server Group Name	Level	Parent	Function	sds_no_grp	A	NONE	SDS													
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46.	<b>Primary SDS VIP:</b> <input type="checkbox"/> The user will be presented with the <b>“Configuration → Server Groups”</b> screen as shown on the right	 <p><b>Main Menu: Configuration -&gt; Server Groups</b></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>           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>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	sds_no_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>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	sds-no-a		10.240.108.24	sds-no-b		10.240.108.24
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47.	<b>Primary SDS VIP:</b> <ol style="list-style-type: none"> <li>1) Using the mouse, select the SDS Server Group associated with the Query Server being installed.</li> <li>2) Select the “Edit” dialogue button from the bottom left corner of the screen.</li> </ol>	 <p><b>Main Menu: Configuration -&gt; Server Groups</b></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>           Network Element: SDS_NE            NE HA Pref: DEFAULT  <table border="1"> <thead> <tr> <th>Server</th> <th>Node HA Pref</th> </tr> </thead> <tbody> <tr> <td>sds-no-a</td> <td></td> </tr> <tr> <td>sds-no-b</td> <td></td> </tr> </tbody> </table> </td> </tr> </tbody> </table> <p>     &lt;       Insert <b>Edit</b> Delete Report   </p>	Server Group Name	Level	Parent	Function	Connection Count	Servers	sds_no_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> </tr> </thead> <tbody> <tr> <td>sds-no-a</td> <td></td> </tr> <tr> <td>sds-no-b</td> <td></td> </tr> </tbody> </table>	Server	Node HA Pref	sds-no-a		sds-no-b				
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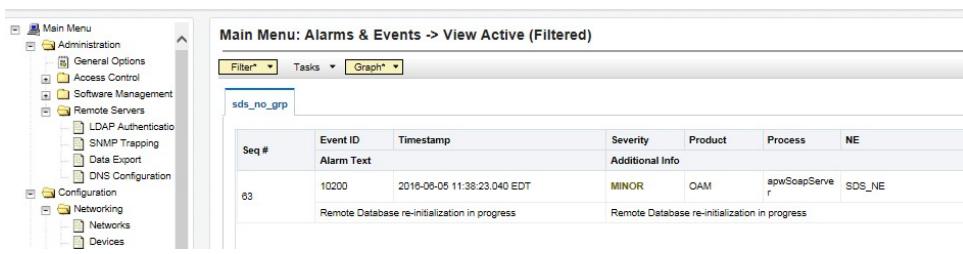
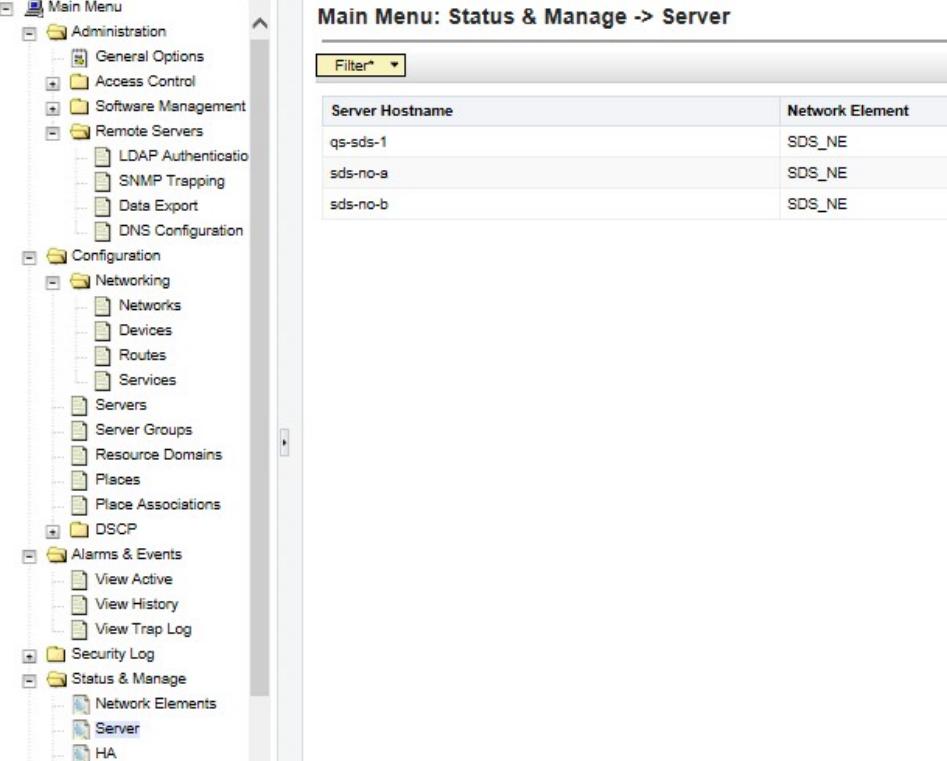
## Procedure 5. Configuring the Query Server (All SDS NOAM Sites)

Step	Procedure	Result																																				
48.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> The user will be presented with the “<b>Server Groups [Edit]</b>” screen as shown on the right.</p>	<p><b>Main Menu: Configuration &gt; Server Groups [Edit]</b></p> <p><b>Modifying attributes of server group : sds_no_grp</b></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 <input checked="" type="checkbox"/></td> <td>Select one of the Levels supported by the system [A]</td> </tr> <tr> <td>Parent *</td> <td>NONE <input checked="" type="checkbox"/></td> <td>Select an existing Server Group [A value is required.]</td> </tr> <tr> <td>Function *</td> <td>SDS <input checked="" type="checkbox"/></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 [1]</td> </tr> <tr> <td>SDS_NE</td> <td><input type="checkbox"/> Prefer Network Element as spare</td> <td></td> </tr> <tr> <th>Server</th> <th>SG Inclusion</th> <th>Preferred HA Role</th> </tr> <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> <tr> <td>VIP Assignment</td> <td>VIP Address</td> <td>Add</td> </tr> </tbody> </table>	Field	Value	Description	Server Group Name *	sds_no_grp	Unique Identifier used to label a Server Group. [Default: sds_no_grp]	Level *	A <input checked="" type="checkbox"/>	Select one of the Levels supported by the system [A]	Parent *	NONE <input checked="" type="checkbox"/>	Select an existing Server Group [A value is required.]	Function *	SDS <input checked="" type="checkbox"/>	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 [1]	SDS_NE	<input type="checkbox"/> Prefer Network Element as spare		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 Assignment	VIP Address	Add
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49.	<p><b>Primary SDS VIP:</b>  Select the “<b>Query Server</b>” from the list of “<b>Available Servers in Network Element</b>” 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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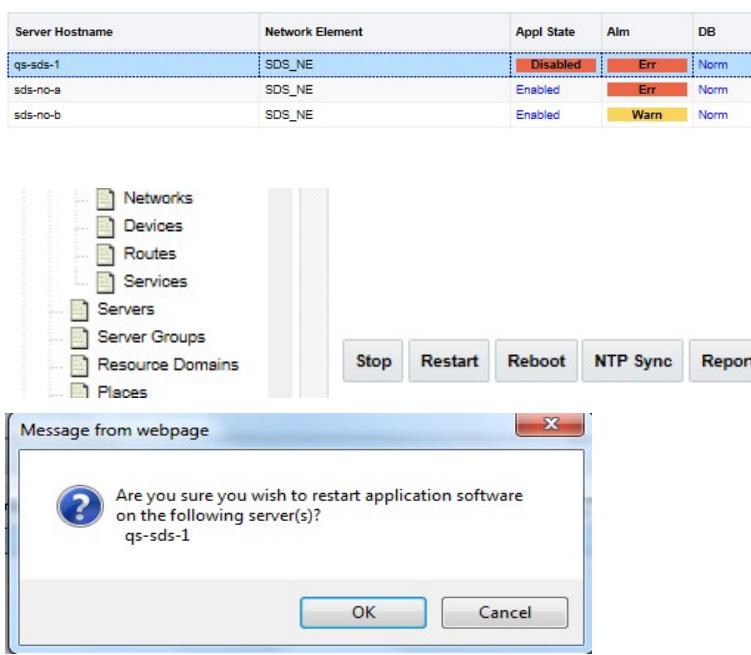
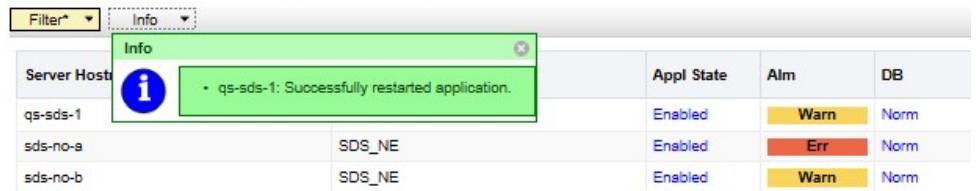
## Procedure 5. Configuring the Query Server (All SDS NOAM Sites)

Step	Procedure	Result																					
50.	<b>Primary SDS VIP:</b> <input type="checkbox"/> Click the “ <b>Apply</b> ” dialogue button from the bottom of the screen.																						
51.	<b>Primary SDS VIP:</b> <input type="checkbox"/> The user should be presented with a banner information message stating “ <b>Data committed</b> ”.																						
52.	<b>Primary SDS VIP:</b> Select...  <u><b>Main Menu</b></u> <b>→ Alarms &amp; Events</b> <b>→ View Active</b>  ...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>2016-06-05 11:38:23.040 ED1</td> </tr> <tr> <td>60</td> <td>14101</td> <td>2016-06-05 10:40:40.471 ED1</td> </tr> <tr> <td>2</td> <td>32532</td> <td>2016-06-05 10:31:42.583 ED1</td> </tr> <tr> <td>25</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	2016-06-05 11:38:23.040 ED1	60	14101	2016-06-05 10:40:40.471 ED1	2	32532	2016-06-05 10:31:42.583 ED1	25	32532	2016-06-05 09:38:07.517 ED1
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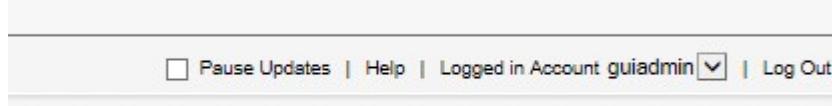
## Procedure 5. Configuring the Query Server (All SDS NOAM Sites)

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

## Procedure 5. Configuring the Query Server (All SDS NOAM Sites)

Step	Procedure	Result
55.	<p><b>Primary SDS VIP:</b></p> <p>Verify that the <b>“DB and Reporting Status”</b> status columns show <b>“Norm”</b> for the Query Server at this point. The <b>“Proc”</b> column should show <b>“Man”</b>.</p>	<p>Main Menu: Status &amp; Manage -&gt; Server</p> 
56.	<p><b>Primary SDS VIP:</b></p> <p>1) Using the mouse, select the <b>“Query Server”</b> hostname. The line entry should now be highlighted in <b>GREEN</b>.</p> <p>2) Select the <b>“Restart”</b> dialogue button from the bottom left corner of the screen.</p> <p>3) Click the <b>“OK”</b> button on the confirmation dialogue box.</p> <p>4) The user should be presented with a confirmation message (in the banner area) for the <b>“Query Server”</b> stating: <b>“Successfully restarted application”</b>.</p> <p><b>NOTE:</b> The user may need to use the vertical scroll-bar in order to make the <b>“Restart”</b> dialogue button visible</p>	 <p>Main Menu: Status &amp; Manage -&gt; Server</p> 

## Procedure 5. Configuring the Query Server (All SDS NOAM Sites)

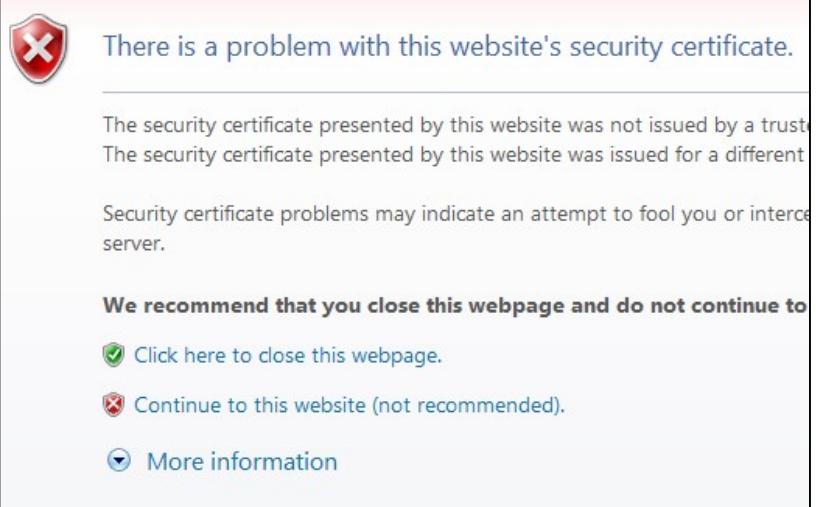
Step	Procedure	Result																												
57.	<b>Primary SDS VIP:</b> <input type="checkbox"/> Verify that the “Appl State” now shows “Enabled” and that the “Alm, DB, Reporting Status & Proc” status columns all show “Norm” for the “Query Server”.	<table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>qs-sds-1</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-no-a</td> <td>SDS_NE</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-no-b</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table>	Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc	qs-sds-1	SDS_NE	Enabled	Warn	Norm	Norm	Norm	sds-no-a	SDS_NE	Enabled	Err	Norm	Norm	Norm	sds-no-b	SDS_NE	Enabled	Warn	Norm	Norm	Norm
Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc																								
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sds-no-b	SDS_NE	Enabled	Warn	Norm	Norm	Norm																								
58.	<b>Primary SDS VIP:</b> <input type="checkbox"/> Click the “Logout” link on the SDS server GUI.	 <p> <input type="checkbox"/> Pause Updates   Help   Logged in Account <b>guiadmin</b> <input checked="" type="checkbox"/>   Log Out       </p>																												
<b>THIS PROCEDURE HAS BEEN COMPLETED</b>																														

## 5.4 OAM Installation for the DR SDS NOAM Site

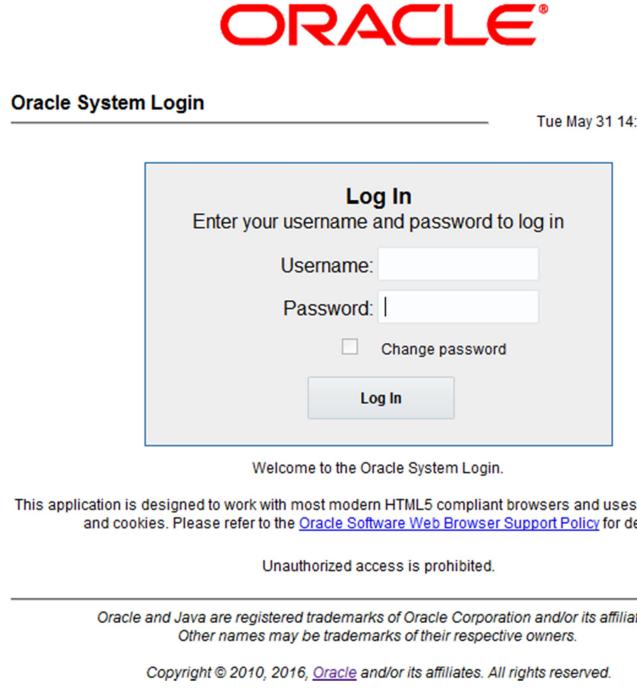
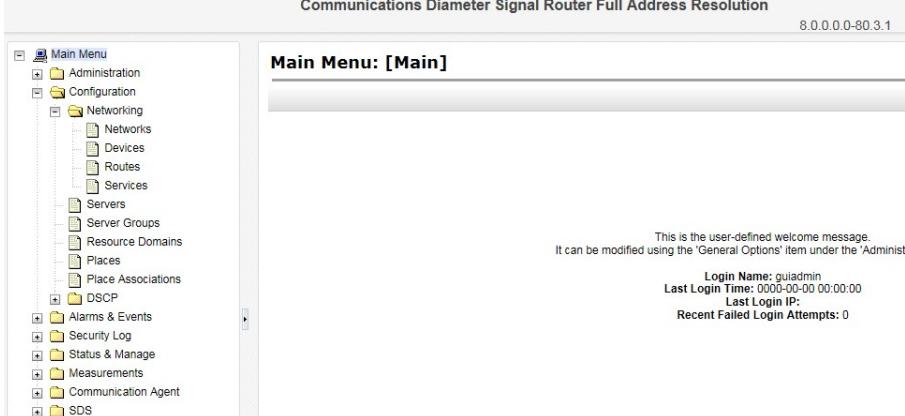
## Assumptions:

- 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.

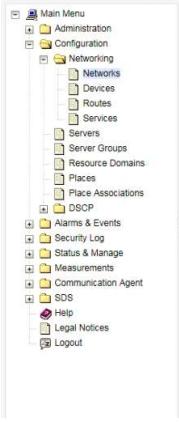
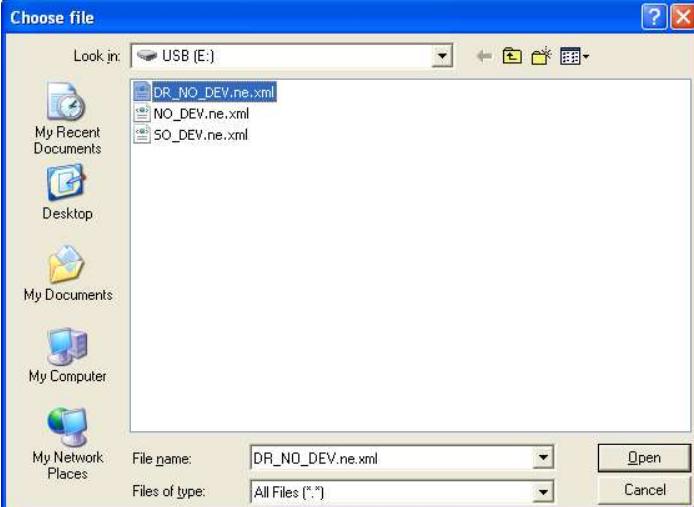
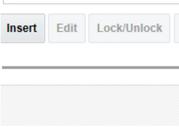
## Procedure 6. Configuring the DR NOAM Servers (DR SDS NOAM Site Only)

Step	Procedure	Result
1.	<b>Primary SDS VIP:</b> <input type="checkbox"/> Launch an approved web browser and connect to the XMI Virtual IP Address (VIP) of the Active SDS site  <b>NOTE:</b> If presented with the “security certificate” warning screen shown to the right, choose the following option: “ <b>Continue to this website (not recommended)</b> ”.	 <p> <b>There is a problem with this website's security certificate.</b>          The security certificate presented by this website was not issued by a trusted authority.          The security certificate presented by this website was issued for a different website.          Security certificate problems may indicate an attempt to fool you or intercept your information.  <b>We recommend that you close this webpage and do not continue to this website.</b>  <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>

### Procedure 6. Configuring the DR NOAM Servers (DR SDS NOAM Site Only)

Step	Procedure	Result
2.	<p><b>Primary SDS VIP:</b></p> <p><input type="checkbox"/></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><b>Log In</b></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><b>Log In</b></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 <a href="#">Oracle Software Web Browser Support Policy</a> 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>
3.	<p><input type="checkbox"/></p> <p><b>Primary SDS VIP:</b></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><b>Main Menu: [Main]</b></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: <input type="text"/> Recent Failed Login Attempts: 0</p>

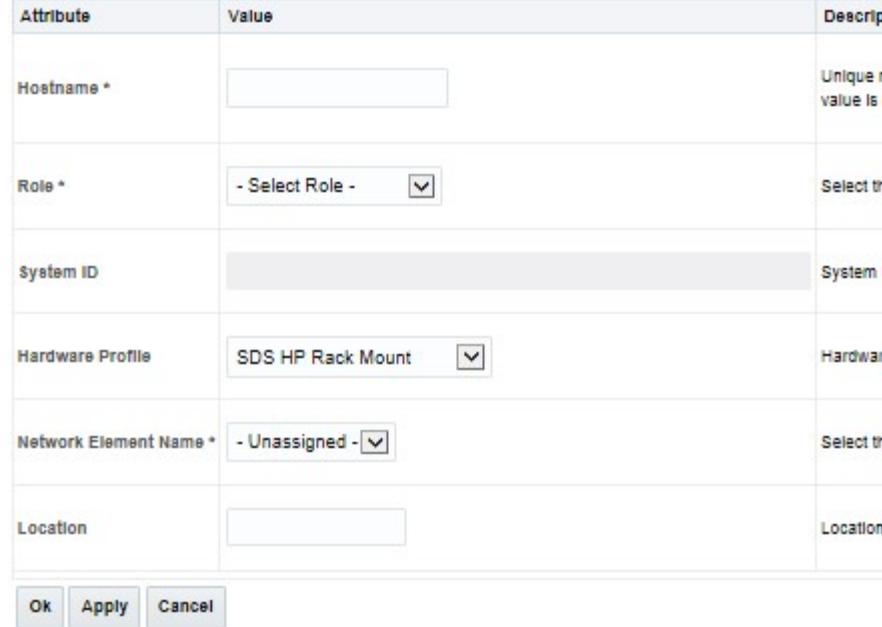
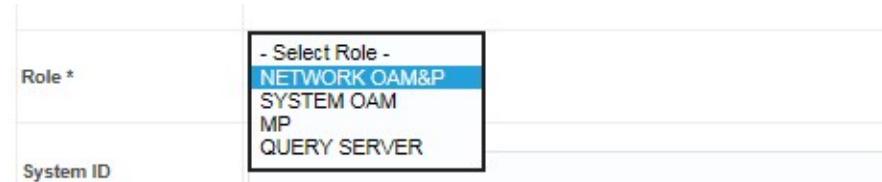
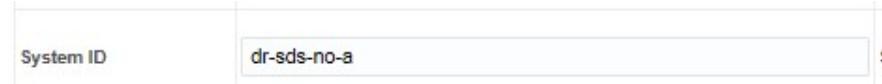
## Procedure 6. Configuring the DR NOAM Servers (DR SDS NOAM Site Only)

Step	Procedure	Result								
4.	<p><b>Primary SDS VIP:</b> Select...   <b>Main Menu</b>  <b>→ Configuration</b>  <b>→ Network Elements</b>   ...as shown on the right.</p>	 <p>Main Menu: Configuration -&gt; Networking -&gt; 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 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><b>Primary SDS VIP:</b>  <input type="checkbox"/> From the <b>Configuration / Network Elements</b> screen...   Select the “<b>Browse</b>” dialogue button (scroll to bottom left corner of screen).</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>								
6.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> <b>Note:</b> This step assumes that the <b>xml</b> files were previously prepared, as described in <b>Appendix E</b>.   1) Select the location containing the site <b>.xml</b> file.   2) Select the <b>.xml</b> file and click the “<b>Open</b>” dialogue button.</p>	 <p>Look in: USB (E:)</p> <p>DR_NO_DEV.ne.xml NO_DEV.ne.xml SO_DEV.ne.xml</p> <p>File name: DR_NO_DEV.ne.xml</p> <p>File of type: All Files (*.*)</p> <p>Open Cancel</p>								
7.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Select the “<b>Upload File</b>” dialogue button (bottom left corner of screen).</p>	 <p>To create a new Network Element, upload a valid configuration file: C:\Users\gurjeesi\Desktop\ 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>								

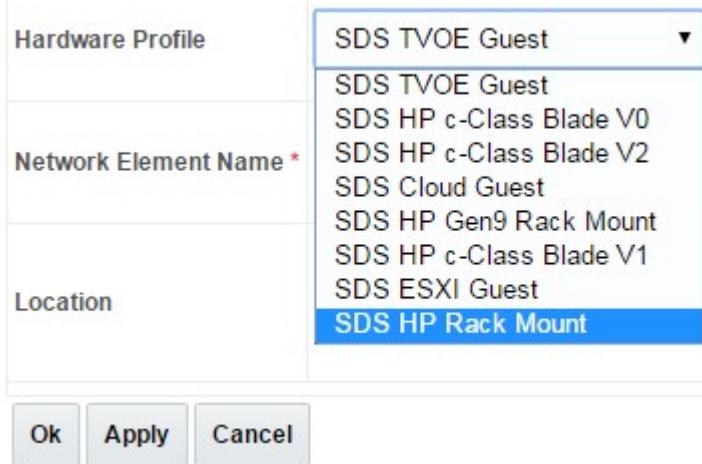
## Procedure 6. Configuring the DR NOAM Servers (DR SDS NOAM Site Only)

Step	Procedure	Result																								
8.	<p><b>Primary SDS VIP:</b></p> <p><input type="checkbox"/> If the values in the .xml file pass validation rules, the user will receive a banner information message showing that the data has been successfully validated and committed to the DB.</p>	<p>Main Menu: Configuration &gt; Networking &gt; Networks</p> <p>Main Menu: Configuration &gt; Networking &gt; Networks</p> <table border="1"> <thead> <tr> <th>Network Name</th> <th>Network Type</th> <th>Default</th> <th>Locked</th> <th>Routed</th> <th>VLAN</th> <th>Configured Interfaces</th> <th>Network</th> </tr> </thead> <tbody> <tr> <td>XMI</td> <td>OAM</td> <td>Yes</td> <td>Yes</td> <td>Yes</td> <td>14</td> <td>0</td> <td>10.240.108.0/26</td> </tr> <tr> <td>IMI</td> <td>OAM</td> <td>No</td> <td>Yes</td> <td>No</td> <td>15</td> <td>0</td> <td>169.254.2.0/26</td> </tr> </tbody> </table>	Network Name	Network Type	Default	Locked	Routed	VLAN	Configured Interfaces	Network	XMI	OAM	Yes	Yes	Yes	14	0	10.240.108.0/26	IMI	OAM	No	Yes	No	15	0	169.254.2.0/26
Network Name	Network Type	Default	Locked	Routed	VLAN	Configured Interfaces	Network																			
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IMI	OAM	No	Yes	No	15	0	169.254.2.0/26																			
9.	<p><b>Primary SDS VIP:</b></p> <p>1) Select...  <u>Main Menu</u>  <u>→ Configuration</u>  <u>→ Servers</u>  ...as shown on the right.</p> <p>2) Select the “<b>Insert</b>” dialogue button (bottom left corner of screen).</p>	<p>Main Menu: Configuration &gt; 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&amp;P</td> </tr> <tr> <td>sds-no-b</td> <td>Network OAM&amp;P</td> </tr> <tr> <td>qs-sds-1</td> <td>Query Server</td> </tr> </tbody> </table>	Hostname	Role	sds-no-a	Network OAM&P	sds-no-b	Network OAM&P	qs-sds-1	Query Server																
Hostname	Role																									
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## Procedure 6. Configuring the DR NOAM Servers (DR SDS NOAM Site Only)

Step	Procedure	Result																					
10.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> The user is now presented with the “Adding a new server” configuration screen.</p>	<p><b>Adding a new server</b></p>  <table border="1"> <thead> <tr> <th>Attribute</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Hostname *</td> <td><input type="text"/></td> <td>Unique name for the server. [Default alphanumeric and end with an alpha</td> </tr> <tr> <td>Role *</td> <td>- Select Role - <input type="button" value="▼"/></td> <td>Select the</td> </tr> <tr> <td>System ID</td> <td><input type="text"/></td> <td>System ID for</td> </tr> <tr> <td>Hardware Profile</td> <td>SDS HP Rack Mount <input type="button" value="▼"/></td> <td>Hardware</td> </tr> <tr> <td>Network Element Name *</td> <td>- Unassigned - <input type="button" value="▼"/></td> <td>Select the</td> </tr> <tr> <td>Location</td> <td><input type="text"/></td> <td>Location</td> </tr> </tbody> </table>	Attribute	Value	Description	Hostname *	<input type="text"/>	Unique name for the server. [Default alphanumeric and end with an alpha	Role *	- Select Role - <input type="button" value="▼"/>	Select the	System ID	<input type="text"/>	System ID for	Hardware Profile	SDS HP Rack Mount <input type="button" value="▼"/>	Hardware	Network Element Name *	- Unassigned - <input type="button" value="▼"/>	Select the	Location	<input type="text"/>	Location
Attribute	Value	Description																					
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Network Element Name *	- Unassigned - <input type="button" value="▼"/>	Select the																					
Location	<input type="text"/>	Location																					
11.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Input the assigned “hostname” for DR NOAM Server.</p>	 <table border="1"> <tr> <td>Hostname *</td> <td><input type="text" value="dr-sds-no-a"/></td> <td>Unique name for the server. [Default alphanumeric and end with an alpha</td> </tr> </table>	Hostname *	<input type="text" value="dr-sds-no-a"/>	Unique name for the server. [Default alphanumeric and end with an alpha																		
Hostname *	<input type="text" value="dr-sds-no-a"/>	Unique name for the server. [Default alphanumeric and end with an alpha																					
12.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Select “NETWORK OAM&amp;P” for the server “Role” from the pull-down menu.</p>	 <table border="1"> <tr> <td>Role *</td> <td>- Select Role - NETWORK OAM&amp;P SYSTEM OAM MP QUERY SERVER</td> <td>Select the</td> </tr> <tr> <td>System ID</td> <td><input type="text"/></td> <td>System ID for</td> </tr> </table>	Role *	- Select Role - NETWORK OAM&P SYSTEM OAM MP QUERY SERVER	Select the	System ID	<input type="text"/>	System ID for															
Role *	- Select Role - NETWORK OAM&P SYSTEM OAM MP QUERY SERVER	Select the																					
System ID	<input type="text"/>	System ID for																					
13.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Input the assigned hostname again as the “System ID” for the SDS DR Server (A or B).</p>	 <table border="1"> <tr> <td>System ID</td> <td><input type="text" value="dr-sds-no-a"/></td> <td>System ID for</td> </tr> </table>	System ID	<input type="text" value="dr-sds-no-a"/>	System ID for																		
System ID	<input type="text" value="dr-sds-no-a"/>	System ID for																					

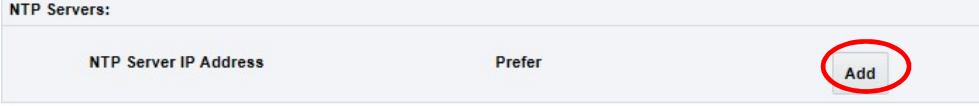
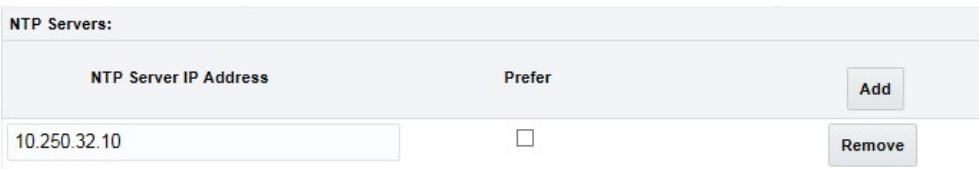
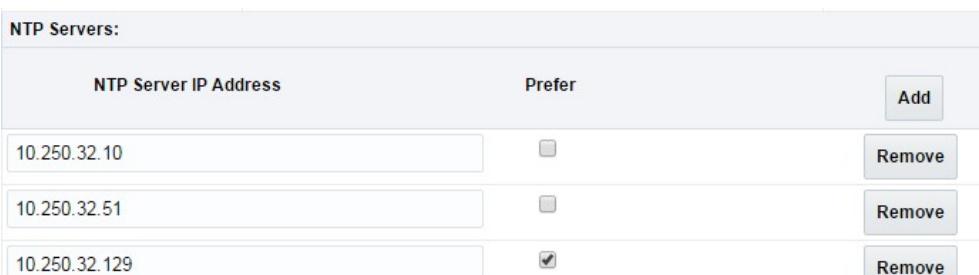
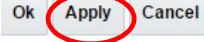
## Procedure 6. Configuring the DR NOAM Servers (DR SDS NOAM Site Only)

Step	Procedure	Result
14.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> For GEN8 Server:  Select “<b>SDS HP Rack Mount</b>” for the <b>Hardware Profile</b> for the SDS from the pull-down menu.</p> <p>For GEN9 Server:  Select “<b>SDS HP GEN9 Rack Mount</b>” for the <b>Hardware Profile</b> for the SDS from the pull-down menu.</p>	<p>For GEN8 select “<b>SDS HP Rack Mount</b>” from the <b>Hardware Profile</b> pull-down menu.</p>  <p>For GEN9 select “<b>SDS HP GEN9 Rack Mount</b>” from the <b>Hardware Profile</b> pull-down menu.</p> 
15.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Select the <b>Network Element Name</b> for the SDS from the pull-down menu.</p>	 <p><b>NOTE:</b> After the Network Element Name is selected, the Interfaces fields will be displayed, as seen in Step 17.</p>

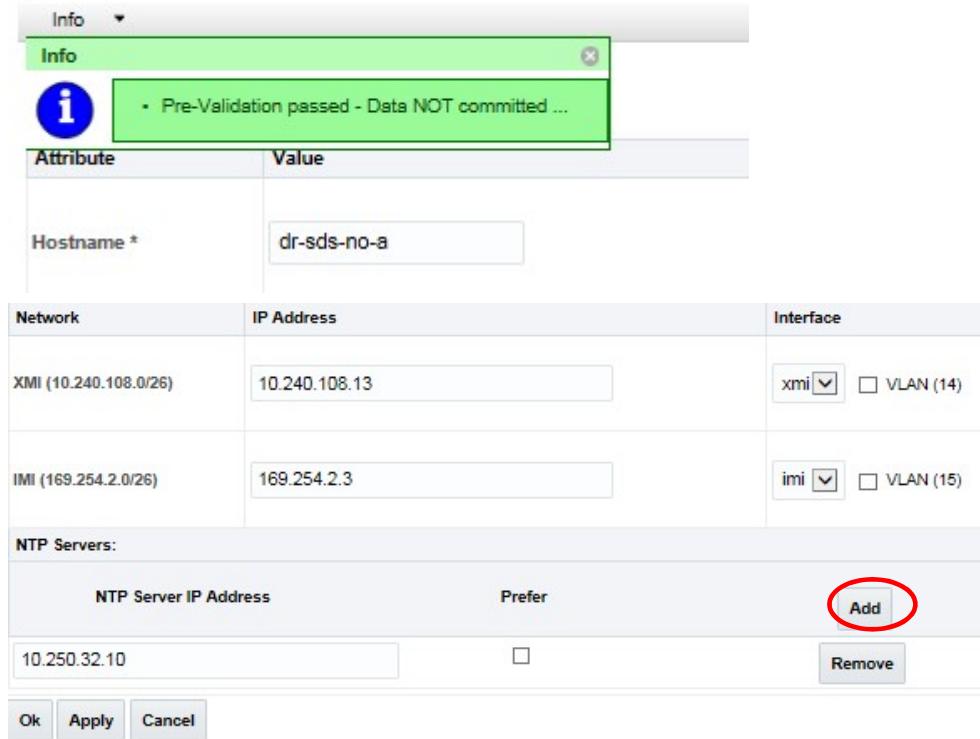
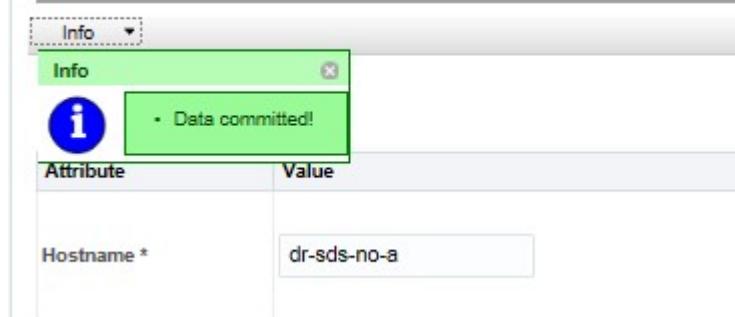
## Procedure 6. Configuring the DR NOAM Servers (DR SDS NOAM Site Only)

Step	Procedure	Result																						
16.	<b>Primary SDS VIP:</b> <input type="checkbox"/> Enter the site location.	Location <input type="text" value="bangalore"/>	Location description [Default]																					
		<b>NOTE:</b> Location is an optional field.																						
17.	<b>SDS Server NOAM A:</b>  1) Enter the <b>MGMT_VLAN</b> IP address for the DR SDS Server.  2) Set the <b>MGMT_VLAN</b> Interface to “ <b>bond0</b> ” and “ <b>check</b> ” the VLAN checkbox.  3) Enter the <b>IMI</b> IP address for the DR SDS Server.  4) Set the <b>IMI</b> Interface to “ <b>bond0</b> ” and “ <b>check</b> ” 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>MGMT_VLAN</td> <td>169.254.1.14</td> <td rowspan="2">bond0</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>IMI</td> <td>169.254.100.14</td> <td><input type="checkbox"/></td> </tr> <tr> <td rowspan="2">DR SDS-B</td> <td>MGMT_VLAN</td> <td>169.254.1.15</td> <td rowspan="2">bond0</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>IMI</td> <td>169.254.100.15</td> <td><input type="checkbox"/></td> </tr> </tbody> </table> <b>NOTE_1:</b> These IP addresses are based on the info in the NAPD and the Network Element Config file.  <b>NOTE_2:</b> The <b>MGMT_VLAN</b> should only be present when 4948E-F AggregationSwitches are deployed with SDS NOAM / Query Server RMS. If the <b>MGMT_VLAN</b> is not present, the <b>IMI</b> network values shown above still apply.	SDS Server (DR NOAM)	Network	IP Address	Interface	VLAN Checkbox	DR SDS-A	MGMT_VLAN	169.254.1.14	bond0	<input checked="" type="checkbox"/>	IMI	169.254.100.14	<input type="checkbox"/>	DR SDS-B	MGMT_VLAN	169.254.1.15	bond0	<input checked="" type="checkbox"/>	IMI	169.254.100.15	<input type="checkbox"/>	
SDS Server (DR NOAM)	Network	IP Address	Interface	VLAN Checkbox																				
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	IMI	169.254.100.15		<input type="checkbox"/>																				

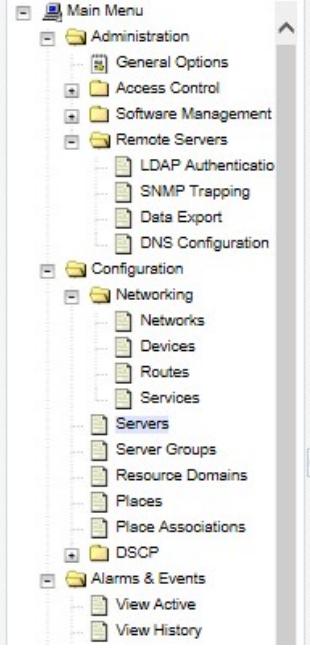
## Procedure 6. Configuring the DR NOAM Servers (DR SDS NOAM Site Only)

Step	Procedure	Result																			
18.	<p>1) Enter the customer assigned XMI IP address for the DR SDS Server.</p> <p><b>Layer 3</b> <b>(No VLAN tagging used for XMI)</b></p> <p>2) Set the XMI Interface to “bond1” and “DO NOT check” the VLAN checkbox. - OR -</p> <p><b>Layer 2</b> <b>(VLAN tagging used for XMI)</b></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></td> </tr> <tr> <td></td> <td></td> <td>Yes</td> <td>bond0</td> <td></td> </tr> </tbody> </table> <p><b>!!! CAUTION !!!</b> It is crucial that the correct network configuration be selected in Steps 17 &amp; 18 of this procedure. Choosing an incorrect configuration will result in the need to re-install the OS and restart the DR SDS instalation procedures over from the beginning.</p>					SDS Server (DR NOAM)	Network	VLAN tagging (on XMI network)	Interface	VLAN Checkbox	DR SDS NOAM Server (A or B)	XMI	No	bond1				Yes	bond0	
SDS Server (DR NOAM)	Network	VLAN tagging (on XMI network)	Interface	VLAN Checkbox																	
DR SDS NOAM Server (A or B)	XMI	No	bond1																		
		Yes	bond0																		
19.	<p><b>SDS Server NOAM A:</b></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>Ok  Cancel</p>																			

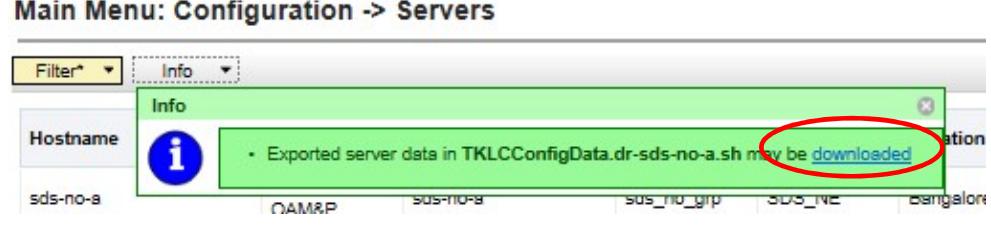
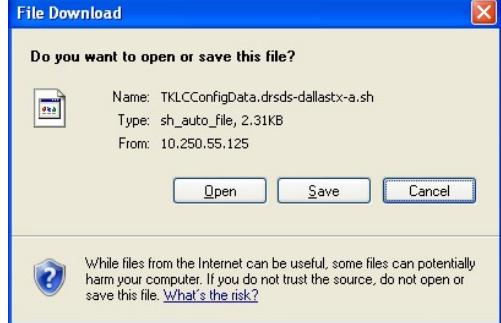
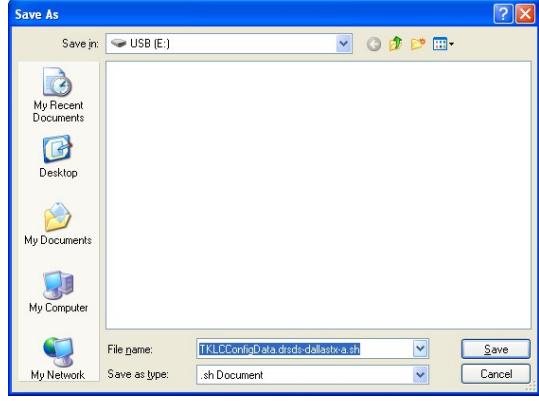
## Procedure 6. Configuring the DR NOAM Servers (DR SDS NOAM Site Only)

Step	Procedure	Result
20.	<p><b>Primary SDS VIP:</b></p> <p>1) The user should be presented with a banner information message stating “<b>Pre-Validation passed</b>”.</p> <p>2) Click the “<b>Apply</b>” dialogue button.</p>	<p><b>Main Menu: Configuration -&gt; Servers [Insert]</b></p> 
21.	<p><b>Primary SDS VIP:</b></p> <p>If the values provided match the network ranges assigned to the NE, the user will receive a banner information message showing that the data has been committed to the DB.</p>	<p><b>Main Menu: Configuration -&gt; Servers [Insert]</b></p> 

## Procedure 6. Configuring the DR NOAM Servers (DR SDS NOAM Site Only)

Step	Procedure	Result																																								
22.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Select...</p> <p><b>Main Menu</b>  <b>→ Configuration</b>  <b>→ Servers</b></p> <p>...as shown on the right.</p>	 <p><b>Main Menu: Configuration -&gt; Servers</b></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&amp;P</td> <td>sds-no-a</td> </tr> <tr> <td>sds-no-b</td> <td>Network OAM&amp;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&amp;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.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> On the <b>“Configuration → Servers”</b> screen, find the newly added DR NOAM server in the list.</p>	<p><b>Main Menu: Configuration -&gt; Servers</b></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&amp;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&amp;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&amp;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
Hostname	Role	System ID	Server Group	Network Element	Location	Place	Details																																			
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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																																			
24.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Use the cursor to select the new DR NOAM server entry added in the <b>Steps 10 – 21</b>.    The row containing the server should now be highlighted.</p>	<p><b>Main Menu: Configuration -&gt; Servers</b></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&amp;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&amp;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&amp;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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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																																			
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25.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Select the <b>“Export”</b> dialogue button (bottom left corner of screen).</p>	<table border="1"> <tr> <td>dr-sds-no-a</td> <td>Network OAM&amp;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																																
dr-sds-no-a	Network OAM&P	dr-sds-no-a		SDS_NE	Bangalore		XMI: 10.240.108.13 IMI: 169.254.2.3																																			

## Procedure 6. Configuring the DR NOAM Servers (DR SDS NOAM Site Only)

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

## Procedure 6. Configuring the DR NOAM Servers (DR SDS NOAM Site Only)

Step	Procedure	Result
29. <input type="checkbox"/>	<b>SDS DR NOAM Server:</b>  1) Access the command prompt.  2) Log into the server as the "admusr" user.	login: <b>admusr</b> Using keyboard-interactive authentication. Password: <b>&lt;admusr_password&gt;</b>
30. <input type="checkbox"/>	<b>SDS DR NOAM Server:</b>  Insert the USB flash drive containing the server configuration file into the USB port on the front panel of the server.	 <b>Figure 12 – HP DL380 GEN8: Front Panel (USB Port)</b>
		 <b>Figure 13 – HP DL380 GEN9: Front Panel (USB Port)</b>
31. <input type="checkbox"/>	<b>SDS DR NOAM Server:</b>  Output similar to that shown on the right will appear as the USB flash drive is inserted into the <b>SDS Server</b> front USB port.	\$ sd 3:0:0:0: [sdb] Assuming drive cache: write through sd 3:0:0:0: [sdb] Assuming drive cache: write through <b>&lt;ENTER&gt;</b>  <b>NOTE:</b> Press the <b>&lt;ENTER&gt;</b> key to return to the command prompt.
32. <input type="checkbox"/>	<b>SDS DR NOAM Server:</b>  Verify that the USB flash drive's partition has been mounted by the OS	\$ <b>df  grep sdb</b> /dev/sdb1 2003076 8 2003068 1% <b>/media/sdb1</b>

## Procedure 6. Configuring the DR NOAM Servers (DR SDS NOAM Site Only)

Step	Procedure	Result
33. <input type="checkbox"/>	<b>SDS DR NOAM Server:</b> 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"/>	<b>SDS DR NOAM Server:</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.	<p><b>Example:</b>            TKLCConfigData&lt;.server_hostname&gt;.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><b>NOTE:</b> 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"/>	<b>SDS DR NOAM Server:</b> After the script completes, a broadcast message will be sent to the terminal.	<p><b>*** NO OUTPUT FOR ≈ 3-20 MINUTES ***</b></p> <p>Broadcast message from admusr (Mon Dec 14 15:47:33 2009):</p> <p>Server configuration completed successfully!            See /var/TKLC/appw/logs/Process/install.log for details.</p> <p>Please remove the USB flash drive if connected and reboot the server.</p> <p><b>&lt;ENTER&gt;</b></p> <p><b>NOTE:</b> The user should be aware that the time to complete this step varies by server and may take from 3-20 minutes to complete.</p>

## Procedure 6. Configuring the DR NOAM Servers (DR SDS NOAM Site Only)

Step	Procedure	Result
36.	<p><b>SDS DR NOAM Server:</b></p> <p><input type="checkbox"/> Remove the USB flash drive from the USB port on the front panel of <b>OAM server</b>.</p> <p><b>CAUTION:</b> <i>It is important that the USB flash drive be removed from the server before continuing on to the next step.</i></p>	 <p><b>Figure 14 – HP DL380 GEN8: Front Panel (USB Port)</b></p>  <p><b>Figure 15 – HP DL380 GEN9: Front Panel (USB Port)</b></p>
37.	<p><b>SDS Server NOAM A or B:</b></p> <p>Verify that the desired Time Zone is currently in use.</p>	<pre>\$ date</pre> <pre>Mon Aug 10 19:34:51 UTC 2015</pre>
38.	<p><b>SDS Server NOAM A or B:</b></p> <p><input type="checkbox"/> If the desired Time Zone was not presented in the previous step...</p> <p><b>Configure the Time Zone.</b></p> <p>Otherwise, skip to the next step.</p>	<p><b>Example:</b> <code>\$ sudo set_ini_tz.pl &lt;time_zone&gt;</code></p> <p><b>NOTE:</b> The following command example sets the time to the “UTC” (aka GMT) time zone which is recommended for all sites.</p> <p>The user may replace, as appropriate, with the customer requested time zone for this site installation. See <b>Appendix G</b> for a list of valid time zones.</p> <pre>\$ sudo set_ini_tz.pl "Etc/UTC"</pre>
39.	<p><b>Server NOAM A:</b></p> <p><input type="checkbox"/> Initiate a reboot of the OAM server.</p>	<pre>\$ sudo init 6</pre>

## Procedure 6. Configuring the DR NOAM Servers (DR SDS NOAM Site Only)

Step	Procedure	Result
40. <input type="checkbox"/>	<b>SDS DR NOAM Server:</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 - 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"/>	<b>SDS DR NOAM Server:</b>  1) After the reboot, access the command prompt. 2) Log into the server as the "admusr" user.	<pre>login: <b>admusr</b> Using keyboard-interactive authentication. Password: &lt;<b>admusr_password</b>&gt;</pre>
42. <input type="checkbox"/>	<b>SDS DR NOAM Server:</b>  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".	<pre>\$ ifconfig  grep in bond0    Link encap:Ethernet  HWaddr 98:4B:E1:74:15:2C bond0.4   Link encap:Ethernet  HWaddr 98:4B:E1:74:15:2C           inet <b>addr:169.254.100.14</b>  Bcast:169.254.100.255  Mask:255.255.255.0 bond1    Link encap:Ethernet  HWaddr 98:4B:E1:74:15:2E           inet <b>addr:10.250.55.161</b>  Bcast:10.250.55.255  Mask:255.255.255.0 eth01    Link encap:Ethernet  HWaddr 98:4B:E1:74:15:2C eth02    Link encap:Ethernet  HWaddr 98:4B:E1:74:15:2E eth11    Link encap:Ethernet  HWaddr 98:4B:E1:74:15:2C eth12    Link encap:Ethernet  HWaddr 98:4B:E1:74:15:2E lo      Link encap:Local Loopback           inet addr:127.0.0.1  Mask:255.0.0.0</pre>
43. <input type="checkbox"/>	<b>SDS DR NOAM Server B:</b>  Use the "ntpq" command to verify that the server has 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    59    64   377   0.142  -2468.3 99.875 *10.250.32.51  192.5.41.209    2 u    58    64   377   0.124  -2528.2 128.432</pre>

## Procedure 6. Configuring the DR NOAM Servers (DR SDS NOAM Site Only)

Step	Procedure	Result
	 <b>IF CONNECTIVITY TO THE NTP SERVER(S) CANNOT BE ESTABLISHED, STOP AND EXECUTE THE FOLLOWING STEPS:</b>	
<p>1) Contact the customer to verify that the IP addresses for the NTP server(s) are correct.</p> <p>2) Have the customer IT group provide a network path from the OAM server IP to the assigned NTP IP addresses.</p> <p><b>ONCE NETWORK CONNECTIVITY IS ESTABLISHED TO THE ASSIGNED NTP IP ADDRESSES, THEN RESTART THIS PROCEDURE BEGINNING WITH STEP 44.</b></p>		
44.	<b>SDS DR NOAM Server:</b> <input type="checkbox"/> Execute a "syscheck" to verify the current health of the server.	<pre>\$ sudo syscheck</pre> <p>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</p>
45.	<b>SDS DR NOAM Server:</b> <input type="checkbox"/> Exit from the command line to return the server console	<pre>\$ exit</pre> <p>logout</p>
46.	<ul style="list-style-type: none"> <li>Configure DR SDS Server B by repeating steps 9 – 45 of this procedure.</li> </ul>	
	 <b>IF 4948E-F SWITCH CONFIGURATION HAS NOT BEEN COMPLETED PRIOR TO THIS STEP, STOP AND EXECUTE THE FOLLOWING STEPS:</b>	
	<p>4) APPENDIX D-1            5) APPENDIX D-2 (Appendix D.2 references Appendix D.3 where applicable).            6) APPENDIX D-4</p>	
47.	<b>DR SDS Server NOAM A:</b> <input type="checkbox"/> From DR SDS Server NOAM A, "ping" the IMI IP address DR SDS NOAM Server B.	<pre>\$ ping -c 5 169.254.100.15</pre> <p>PING 169.254.100.14 (169.254.100.15) 56(84) bytes of data.            64 bytes from 169.254.100.15: icmp_seq=1 ttl=64 time=0.021 ms            64 bytes from 169.254.100.15: icmp_seq=2 ttl=64 time=0.011 ms            64 bytes from 169.254.100.15: icmp_seq=3 ttl=64 time=0.020 ms            64 bytes from 169.254.100.15: icmp_seq=4 ttl=64 time=0.011 ms            64 bytes from 169.254.100.15: icmp_seq=5 ttl=64 time=0.023 ms &lt;CTRL-C&gt;</p> <p>--- 169.254.100.15 ping statistics ---            5 packets transmitted, 5 received, 0% packet loss, time 3999ms            rtt min/avg/max/mdev = 0.011/0.017/0.023/0.005 ms</p>

## Procedure 6. Configuring the DR NOAM Servers (DR SDS NOAM Site Only)

Step	Procedure	Result
48.	<b>DR SDS NOAM Server(s): A &amp; B</b>  Use “ping” to verify that the <b>DR SDS NOAM Server</b> can now reach the local <b>XMI Gateway address</b> .	<pre>\$ 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&lt;CTRL-C&gt;  --- 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</pre>
49.	<b>DR SDS Server(s): A &amp; B</b>  Use “ping” to verify that the <b>DR SDS Server</b> can now reach the <b>Primary SDS VIP address</b> .	<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&lt;CTRL-C&gt;  --- 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>
<b>THIS PROCEDURE HAS BEEN COMPLETED</b>		

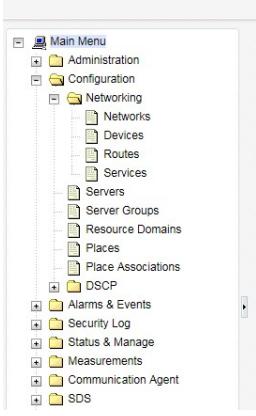
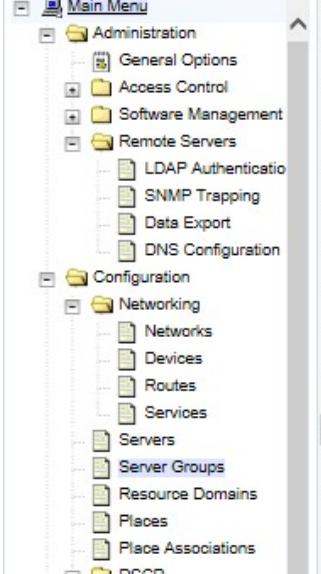
## 5.5 OAM Pairing for DR SDS NOAM Site

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.

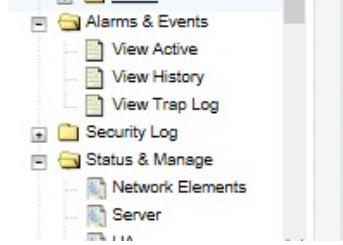
### Procedure 7. Pairing the DR SDS NOAM Servers (DR SDS NOAM Site Only)

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

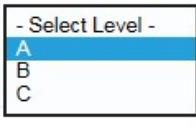
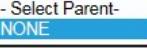
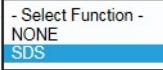
## Procedure 7. Pairing the DR SDS NOAM Servers (DR SDS NOAM Site Only)

Step	Procedure	Result										
3.	<p><b>Primary SDS VIP:</b>  <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><b>Main Menu: [Main]</b></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><b>Primary SDS VIP:</b>  <input type="checkbox"/> Select...  <b>Main Menu</b>  <b>→ Configuration</b>  <b>→ Server Groups</b>  ...as shown on the right.</p>	 <p><b>Main Menu: Configuration -&gt; Server Groups</b></p> <p>Filter*</p> <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Conn Count</th> </tr> </thead> <tbody> <tr> <td>sds_no_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>1</td> </tr> </tbody> </table>	Server Group Name	Level	Parent	Function	Conn Count	sds_no_grp	A	NONE	SDS	1
Server Group Name	Level	Parent	Function	Conn Count								
sds_no_grp	A	NONE	SDS	1								

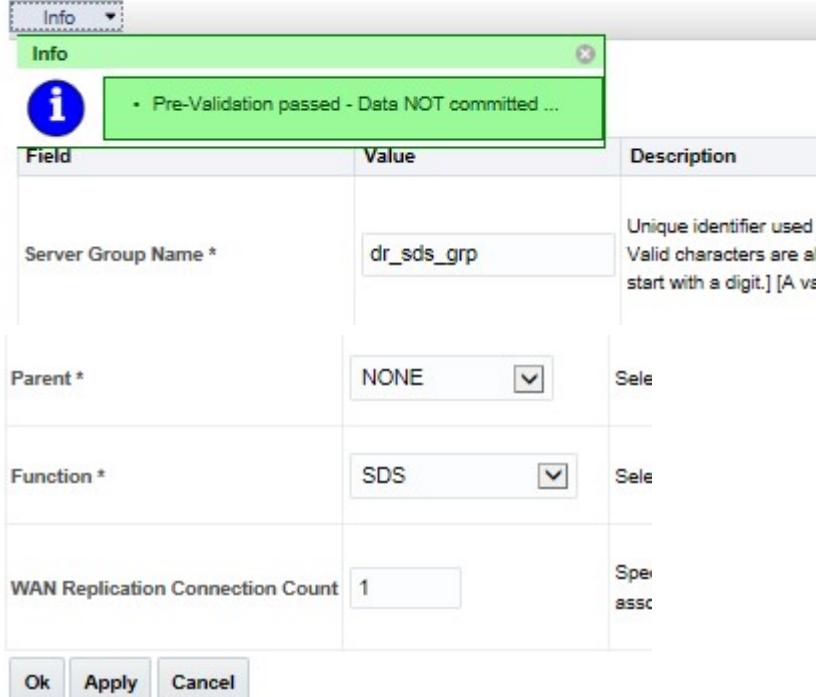
## Procedure 7. Pairing the DR SDS NOAM Servers (DR SDS NOAM Site Only)

Step	Procedure	Result																								
5.	<p><b>Primary SDS VIP:</b></p> <p>1) The user will be presented with the <b>“Server Groups”</b> configuration screen as shown on the right.</p> <p>2) Select the <b>“Insert”</b> dialogue button from the bottom left corner of the screen.</p>	<p>Main Menu: Configuration -&gt; Server Groups</p> <p>Sun Jun 05 15:28:42 2016</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> <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>           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>10.240.108.24</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>  <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	Connection Count	Servers	sds_no_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>10.240.108.24</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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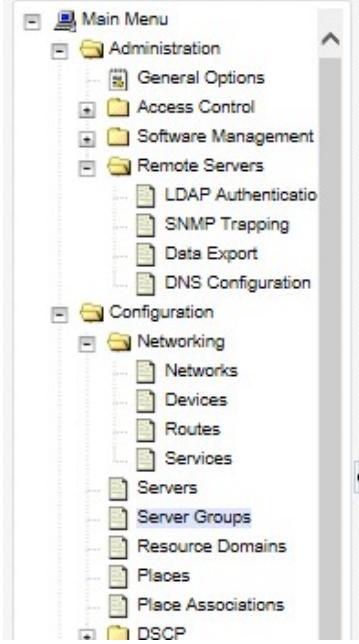
## Procedure 7. Pairing the DR SDS NOAM Servers (DR SDS NOAM Site Only)

Step	Procedure	Result		
7.	<b>Primary SDS VIP:</b> <input type="checkbox"/> Input the <b>Server Group Name</b> .	<b>Field</b>  Server Group Name *	<b>Value</b>  dr_sds_grp	<b>Description</b>  Unique identifier used Valid characters are a start with a digit.] [A v.
8.	<b>Primary SDS VIP:</b> <input type="checkbox"/> Select “A” on the <b>“Level”</b> pull-down menu.	<b>Level *</b>		Select one of the Levels supported by the system. Level C groups contain SOAM servers. Level C groups contain
9.	<b>Primary SDS VIP:</b> <input type="checkbox"/> Select Parent <b>“NONE”</b> on the pull-down menu.	<b>Parent *</b>		Select an existing Server Group or NONE [A value is required.]
10.	<b>Primary SDS VIP:</b> <input type="checkbox"/> Select “SDS” on the <b>“Function”</b> pull-down menu.	<b>Function *</b>		Select one of the Functions supported by the system [A value is required.]

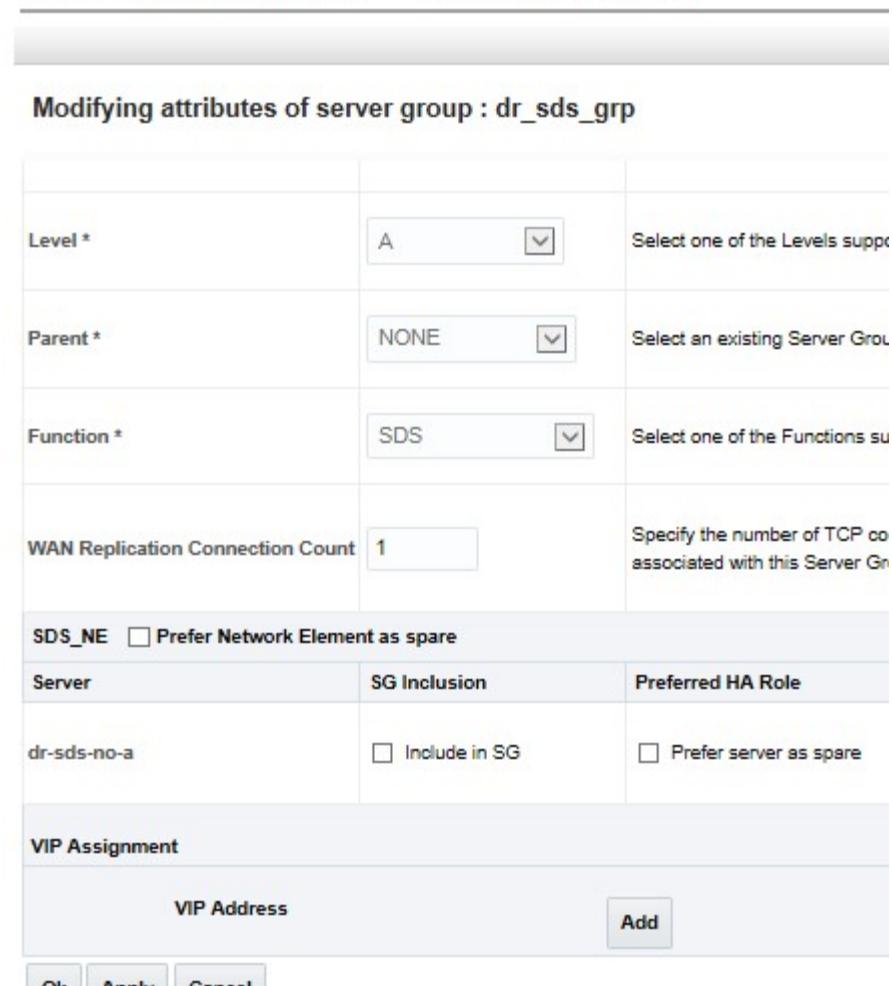
## Procedure 7. Pairing the DR SDS NOAM Servers (DR SDS NOAM Site Only)

Step	Procedure	Result
11.	<p><b>Primary SDS VIP:</b></p> <p>1) The user should be presented with a banner information message stating “<b>Pre-Validation passed</b>”.</p> <p>2) Select the “<b>Apply</b>” dialogue button.</p>	<p><b>Main Menu: Configuration -&gt; Server Groups [Insert]</b></p> 
12.	<p><b>Primary SDS VIP:</b></p> <p>The user should be presented with a banner information message stating “<b>Data committed</b>”.</p>	<p><b>Main Menu: Configuration -&gt; Server Groups [Insert]</b></p> 

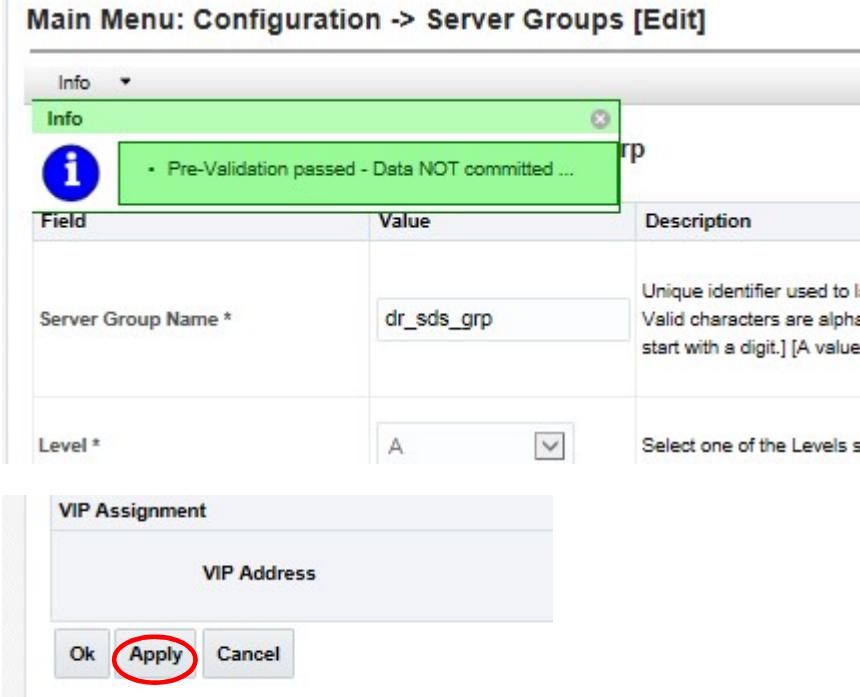
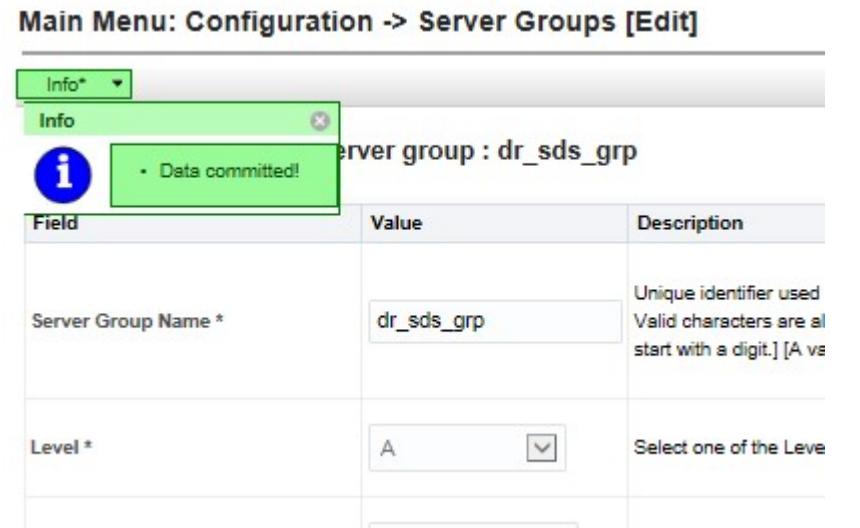
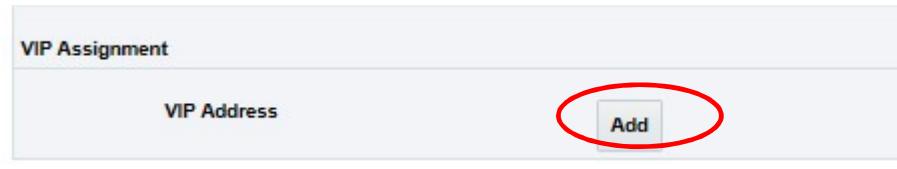
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13.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Select...</p> <p><b>Main Menu</b>  <b>→ Configuration</b>  <b>→ Server Groups</b></p> <p>...as shown on the right.</p>	 <p><b>Main Menu: Configuration -&gt; Server Groups</b></p> <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>dr_sds_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> </tr> <tr> <td>sds_no_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> </tr> </tbody> </table>	Server Group Name	Level	Parent	Function	dr_sds_grp	A	NONE	SDS	sds_no_grp	A	NONE	SDS																		
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15.	<p><b>Primary SDS VIP:</b></p> <ol style="list-style-type: none"> <li>1) Select the <b>Server Group</b> entry applied in <b>Step 12</b>. The line entry should now be highlighted in <b>GREEN</b>.</li> <li>2) Select the “<b>Edit</b>” dialogue button from the bottom left corner of the screen.</li> </ol>	<p><b>Main Menu: Configuration -&gt; Server Groups</b></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>           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>10.240.108.24</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><b>Bottom Left Buttons:</b></p> <ul style="list-style-type: none"> <li>Insert</li> <li>Edit</li> <li>Delete</li> <li>Report</li> </ul>	Server Group Name	Level	Parent	Function	Connection Count	Servers	dr_sds_grp	A	NONE	SDS	1		sds_no_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>10.240.108.24</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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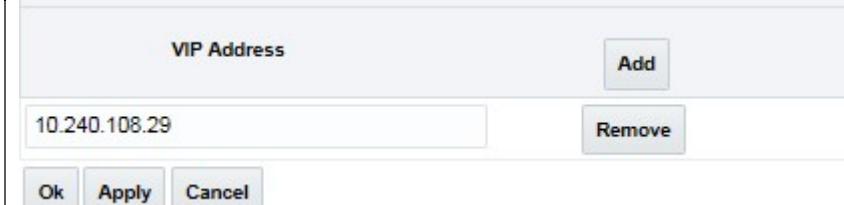
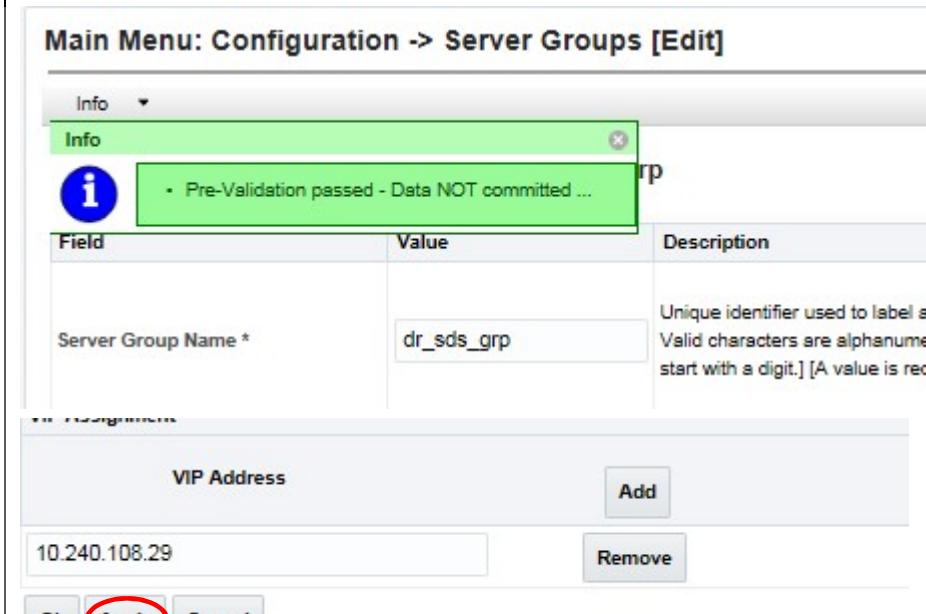
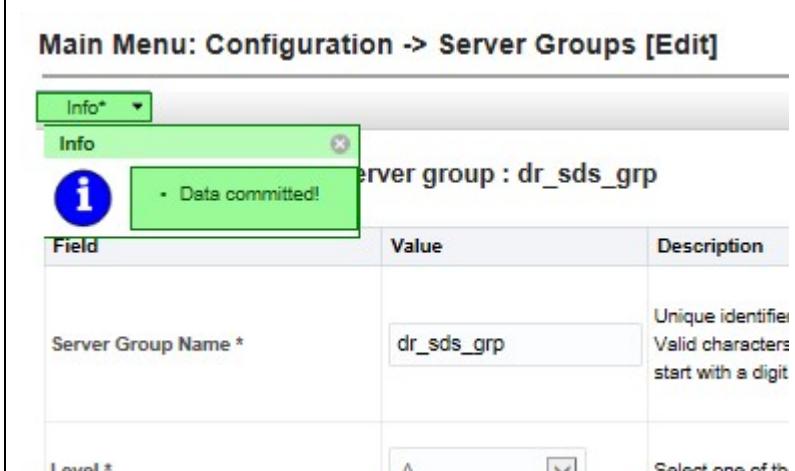
## Procedure 7. Pairing the DR SDS NOAM Servers (DR SDS NOAM Site Only)

Step	Procedure	Result						
16.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> The user will be presented with the “Server Groups [Edit]” screen as shown on the right.</p>	<p><b>Main Menu: Configuration -&gt; Server Groups [Edit]</b></p> 						
17.	<p><b>Primary SDS NOAM VIP:</b>  <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
Server	SG Inclusion	Preferred HA Role						
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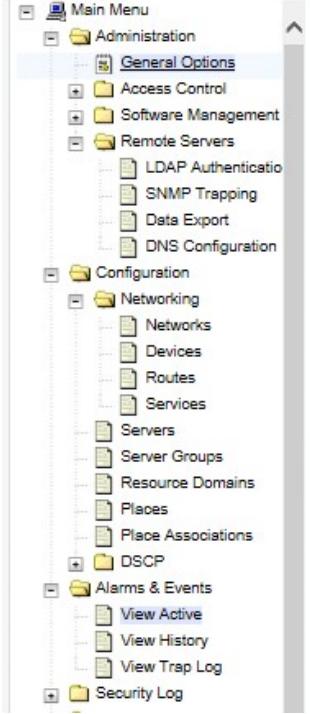
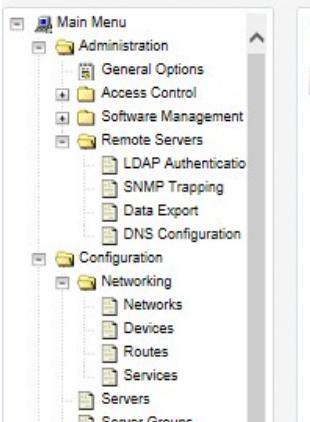
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Step	Procedure	Result
18.	<p><b>Primary SDS NOAM VIP:</b></p> <p>1) The user should be presented with a banner information message stating “<b>Pre-Validation passed</b>”.</p> <p>2) Select the “<b>Apply</b>” dialogue button.</p>	
19.	<p><b>Primary SDS NOAM VIP:</b></p> <p>The user should be presented with a banner information message stating “<b>Data committed</b>”.</p>	
20.	<p><b>Primary SDS NOAM VIP:</b></p> <p>Click the “<b>Add</b>” dialogue button for the <b>VIP Address</b>.</p>	

## Procedure 7. Pairing the DR SDS NOAM Servers (DR SDS NOAM Site Only)

Step	Procedure	Result
21. <input type="checkbox"/>	<b>Primary SDS NOAM VIP:</b> Input the VIP Address	
22. <input type="checkbox"/>	<b>Primary SDS NOAM VIP:</b> 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"/>	<b>Primary SDS NOAM VIP:</b> The user should be presented with a banner information message stating "Data committed".	

## Procedure 7. Pairing the DR SDS NOAM Servers (DR SDS NOAM Site Only)

Step	Procedure	Result																																																																														
24.	<b>Primary SDS NOAM VIP:</b>  Select...  <u>Main Menu</u> → Alarms & Events → View Active  ...as shown on the right.	 <p><b>Main Menu: Alarms &amp; Events -&gt; View Active</b></p> <p>Filter* Tasks Graph* <a href="#">sds_no_grp</a></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 colspan="6">Alarm Text</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 colspan="5">Lost Communication with server</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 colspan="5">Lost Communication with server</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 colspan="5">Lost Communication with server</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 colspan="5">DB Merge From Child Failure</td> </tr> <tr> <td>1718</td> <td>31108</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 colspan="5">GN_DOWN: Receiver Link</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>GN_DOWN: Sender Link</td> </tr> </tbody> </table>	Seq #	Event ID	Timestamp	Severity	Product	Pro	Alarm Text						1820	31283	2016-06-05 17:58:32.405 EDT	MAJOR	Platform	cmh		Lost Communication with server					1728	31283	2016-06-05 17:58:32.400 EDT	MAJOR	Platform	cmh		Lost Communication with server					1721	31283	2016-06-05 17:58:32.168 EDT	MAJOR	Platform	cmh		Lost Communication with server					1719	31107	2016-06-05 17:58:22.148 EDT	MAJOR	Platform	ineti		DB Merge From Child Failure					1718	31108	2016-06-05 17:58:22.144 EDT	MINOR	Platform	ineti		GN_DOWN: Receiver Link										GN_DOWN: Sender Link
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25.	<b>Primary SDS NOAM VIP:</b>  Verify that <b>Event ID 10200 (Remote Database re-initialization in progress)</b> alarms are present with the <b>DR SDS NOAM Server hostnames</b> in the "Instance" field...	 <p><b>Main Menu: Alarms &amp; Events -&gt; View Active (Filtered)</b></p> <p>Filter* Tasks Graph* <a href="#">sds_no_grp</a> <a href="#">sds_so_3</a></p> <table border="1"> <thead> <tr> <th>Seq #</th> <th>Event ID</th> <th>Timestamp</th> <th>Severity</th> <th>Additional Info</th> </tr> <tr> <th colspan="5">Alarm Text</th> </tr> </thead> <tbody> <tr> <td>7320</td> <td>10200</td> <td>2016-06-06 01:10:03.748 EDT</td> <td>MINOR</td> <td>Remote D</td> </tr> <tr> <td></td> <td colspan="4">Remote Database re-initialization in progress</td> </tr> </tbody> </table>	Seq #	Event ID	Timestamp	Severity	Additional Info	Alarm Text					7320	10200	2016-06-06 01:10:03.748 EDT	MINOR	Remote D		Remote Database re-initialization in progress																																																													
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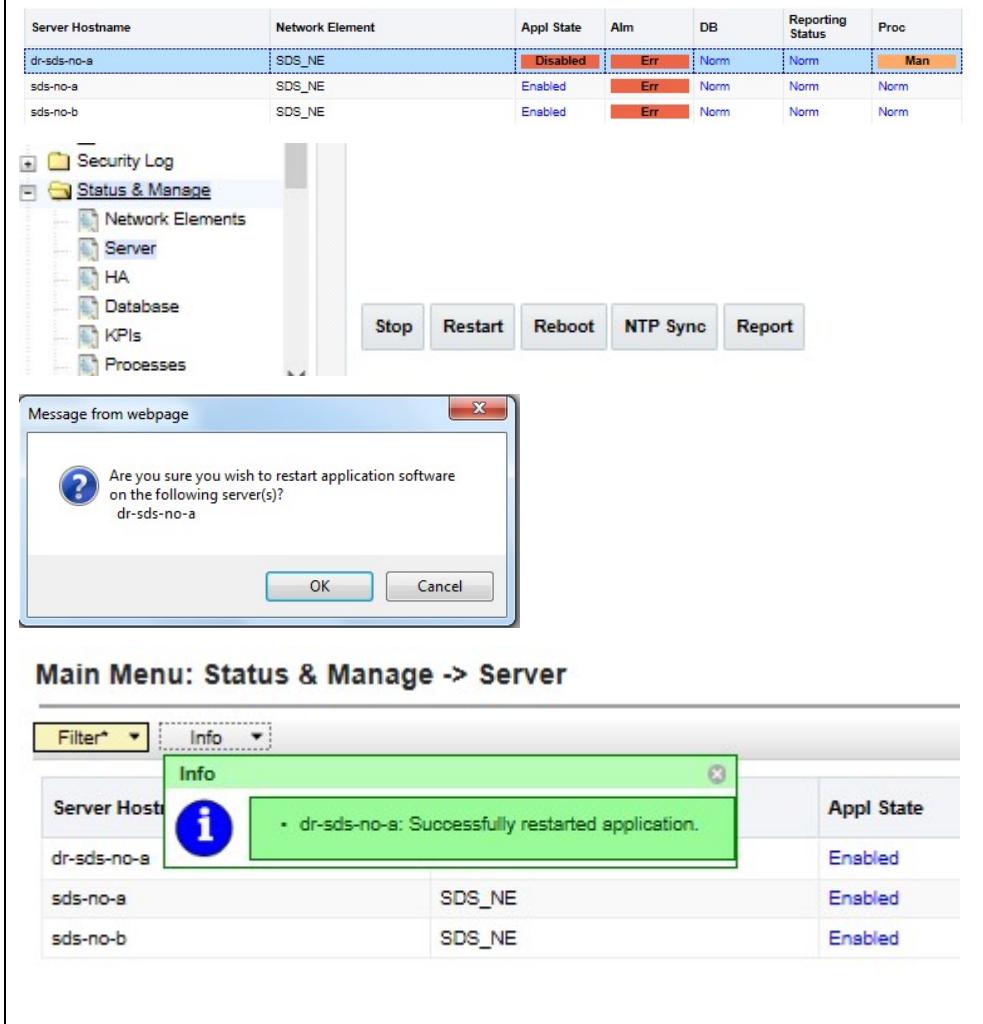
**MONITOR THE EVENT ID 10200 (Remote Database re-initialization in progress) ALARMS.**

**DO NOT PROCEED TO THE NEXT STEP UNTIL THE ALARM CLEAR IS RECEIVED FOR BOTH DR SDS NOAM SERVERS.**

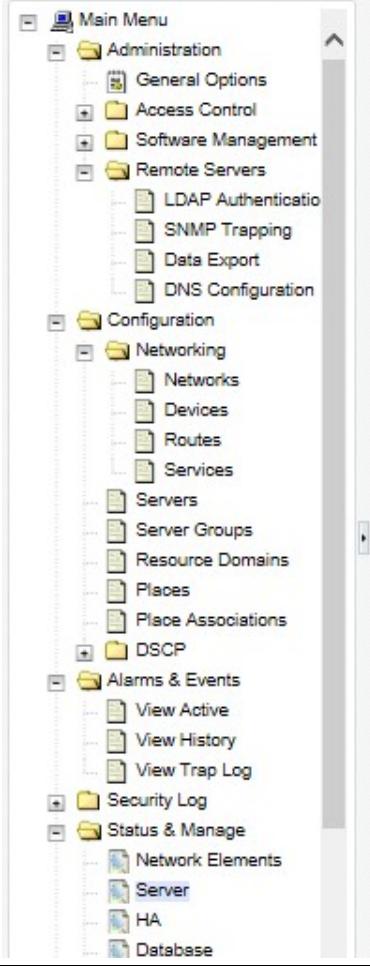
## Procedure 7. Pairing the DR SDS NOAM Servers (DR SDS NOAM Site Only)

Step	Procedure	Result																												
26.	<p><b>Primary SDS NOAM VIP:</b></p> <p><input type="checkbox"/> Select...</p> <p><b>Main Menu</b> → Status &amp; Manage → Server</p> <p>...as shown on the right.</p>	<p><b>Main Menu: Status &amp; Manage -&gt; Server</b></p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> </tr> </thead> <tbody> <tr> <td>dr-sds-no-a</td> <td>SDS_NE</td> </tr> <tr> <td>sds-no-a</td> <td>SDS_NE</td> </tr> <tr> <td>sds-no-b</td> <td>SDS_NE</td> </tr> </tbody> </table>	Server Hostname	Network Element	dr-sds-no-a	SDS_NE	sds-no-a	SDS_NE	sds-no-b	SDS_NE																				
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sds-no-a	SDS_NE																													
sds-no-b	SDS_NE																													
27.	<p><b>Primary SDS NOAM VIP:</b></p> <p><b>1)</b> The “A” and “B” DR SDS servers should now appear in the right panel.</p> <p><b>2)</b> 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
Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc																								
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sds-no-b	SDS_NE	Enabled	Err	Norm	Norm	Norm																								

## Procedure 7. Pairing the DR SDS NOAM Servers (DR SDS NOAM Site Only)

Step	Procedure	Result
28.	<p><b>Primary SDS NOAM VIP:</b></p> <p>1) Using the mouse, select <b>DR SDS NOAM Server A</b>. The line entry should now be highlighted in <b>GREEN</b>.</p> <p>2) Select the “<b>Restart</b>” dialogue button from the bottom left corner of the screen.</p> <p>3) Click the “<b>OK</b>” button on the confirmation dialogue box.</p> <p>4) The user should be presented with a confirmation message (in the banner area) for <b>DR SDS NOAM Server A</b> stating: “<b>Successfully restarted application</b>”</p>	 <p>The screenshot shows the SDS NOAM interface. At the top is a table with columns: Server Hostname, Network Element, Appl State, Alm, DB, Reporting Status, and Proc. It contains three rows: dr-sds-no-a (disabled, error, norm, norm, man), sds-no-a (enabled, error, norm, norm, norm), and sds-no-b (enabled, error, norm, norm, norm). Below the table is a navigation tree with nodes: Security Log, Status &amp; Manage (selected), Network Elements, Server, HA, Database, KPIs, and Processes. To the right are buttons for Stop, Restart, Reboot, NTP Sync, and Report. A message dialog box is open, asking "Are you sure you wish to restart application software on the following server(s)? dr-sds-no-a". Below the dialog is a banner message: "Main Menu: Status &amp; Manage -&gt; Server" and "dr-sds-no-a: Successfully restarted application." The table below the banner shows the status of three servers: dr-sds-no-a (enabled), sds-no-a (enabled), and sds-no-b (enabled).</p>

## Procedure 7. Pairing the DR SDS NOAM Servers (DR SDS NOAM Site Only)

Step	Procedure	Result																												
29.	<p><b>Primary SDS NOAM VIP:</b></p> <p><input type="checkbox"/> Select...</p> <p><b>Main Menu</b> → <b>Status &amp; Manage</b> → <b>Server</b></p> <p>...as shown on the right.</p>	 <p><b>Main Menu: Status &amp; Manage -&gt; Server</b></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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dr-sds-no-a	SDS_NE																													
sds-no-a	SDS_NE																													
sds-no-b	SDS_NE																													
30.	<p><b>Primary SDS NOAM VIP:</b></p> <p><input type="checkbox"/> Verify that the “Appl State” now shows “Enabled” and that the “Alm, DB, Reporting Status &amp; Proc” status columns all show “Norm” for NOAM Server A before proceeding to the next Step.</p>	<p><b>Main Menu: Status &amp; Manage -&gt; Server</b></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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sds-no-b	SDS_NE	Enabled	Err	Norm	Norm	Norm																								

## Procedure 7. Pairing the DR SDS NOAM Servers (DR SDS NOAM Site Only)

Step	Procedure	Result
31.	<p><b>Primary SDS NOAM VIP:</b></p> <p>1) Using the mouse, select <b>DR NOAM Server B</b>. The line entry should now be highlighted in <b>GREEN</b>.</p> <p>2) Select the “<b>Restart</b>” dialogue button from the bottom left corner of the screen.</p> <p>3) Click the “<b>OK</b>” button on the confirmation dialogue box.</p> <p>4) The user should be presented with a confirmation message (in the banner area) for SDS <b>DR NOAM Server B</b> stating: “<b>Successfully restarted application</b>”.</p>	
32.	<p><b>Primary SDS VIP:</b></p> <p>Verify that the “<b>Appl State</b>” now shows “<b>Enabled</b>” and that the “<b>Alm, DB, Reporting Status &amp; Proc</b>” status columns all show “<b>Norm</b>” for <b>NOAM Server A</b> and <b>NOAM Server B</b> before proceeding to the next Step.</p>	
33.	<p><b>Primary SDS VIP:</b></p> <p>Add the Query Server for the DR SDS Server</p>	<ul style="list-style-type: none"> <li>Repeat all steps listed in Procedure 4 except use the DR SDS NOAM NE and Server Group instead of the Primary SDS NOAM NE (1<sup>st</sup> SDS NOAM site) and Server Group.</li> </ul>
<b>THIS PROCEDURE HAS BEEN COMPLETED</b>		

## 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 [5] HP Solutions Firmware Upgrade Pack Release Notes, 795-000-4xx, latest version (2.2.8 or higher).

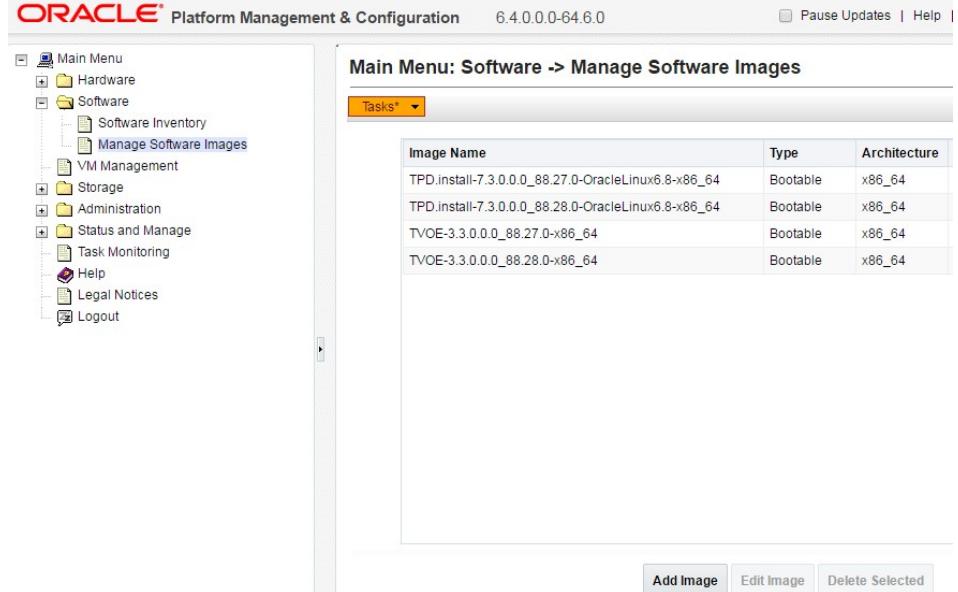
### Procedure 8. Add SDS Software Images to PMAC Servers for DSR Signaling Sites

Step	Procedure	Result
1.	<b>Active SDS VIP (CLI):</b> 1) Access the command prompt. 2) Log into the HP server as the "admsusr" user.	login: <b>admsusr</b> Using keyboard-interactive authentication. Password: <b>&lt;admsusr_password&gt;</b> \$
2.	<b>Active SDS VIP (CLI):</b> "cd" into the /var/TKLC/upgrade/ directory.	\$ <b>cd /var/TKLC/upgrade/</b> \$
3.	<b>Active SDS VIP (CLI):</b> Verify that the <b>SDS ISO</b> file is present.	\$ <b>ls</b> SDS-8.0.0.0.0_80.16.0-x86_64.iso \$
4.	<b>Active SDS VIP (CLI):</b> "scp" the <b>SDS ISO</b> file to the PMAC Server as shown to the right.	\$ <b>scp -p SDS-8.0.0.0.0_80.16.0-x86_64.iso admsusr@&lt;PMAC_Mgmt_IP_address&gt;:/var/TKLC/upgrade/</b> Password: <b>&lt;admsusr_password&gt;</b> SDS-8.0.0.0.0_80.16.0-x86_64.iso 100% 853MB 53.3MB/s 00:16 \$
5.	<b>PMAC Server GUI:</b>  Launch an approved web browser and connect to the <b>Mgmt IP Address</b> of the PMAC Guest server at the SOAM site.  <b>NOTE:</b> If presented with the "security certificate" warning screen shown to the right, choose the following option: " <b>Continue to this website (not recommended)</b> ". 	 <b>There is a problem with this website's security certificate.</b> <hr/> 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.  Security certificate problems may indicate an attempt to fool you or intercept your traffic.  <b>We recommend that you close this webpage and do not continue to:</b> <ul style="list-style-type: none"> <li> <a href="#">Click here to close this webpage.</a></li> <li> <a href="#">Continue to this website (not recommended).</a></li> <li> <a href="#">More information</a></li> </ul>

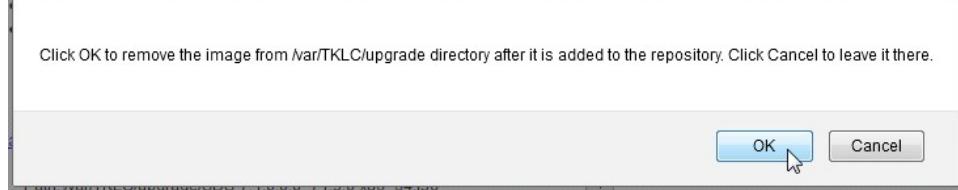
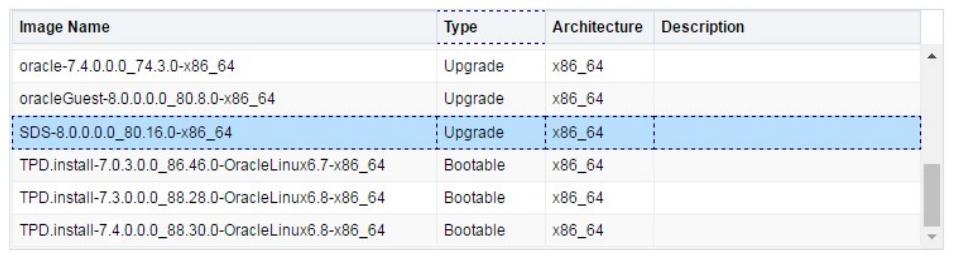
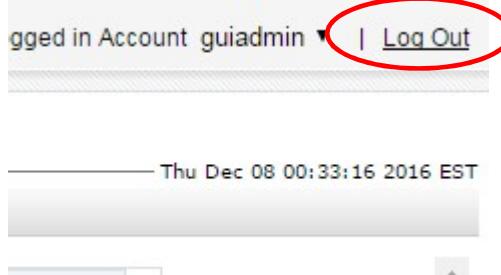
### Procedure 8. Add SDS Software Images to PMAC Servers for DSR Signaling Sites

Step	Procedure	Result
6.	<p><b>PMAC Server GUI:</b></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>	
7.	<p><b>PMAC Server GUI:</b></p> <p>The user should be presented the PMAC Main Menu as shown on the right.</p>	

## Procedure 8. Add SDS Software Images to PMAC Servers for DSR Signaling Sites

Step	Procedure	Result
8.	<p><b>PMAC Server GUI:</b></p> <p>1) Select...  <b>Main Menu</b>  <b>→ Software</b>  <b>→ Manage Software Images</b>  ...as shown on the right.</p> <p>2) Select the “Add Image” button</p>	
9.	<p><b>PMAC Server GUI:</b></p> <p>1) Click the “Path:” pull-down menu and select the <b>SDS ISO</b> file from the /var/TKLC/upgrade directory.</p> <p>2) Add a comment if desired in the Description field.</p> <p>3) Click the “Add New Image” dialogue button.</p>	<p><b>Main Menu: Software -&gt; Manage Software Images [Add Image]</b></p> <p>Images may be added from any of these sources:</p> <ul style="list-style-type: none"> <li>Oracle-provided media in the PM&amp;C host's CD/DVD drive (Refer to Note)</li> <li>USB media attached to the PM&amp;C's host (Refer to Note)</li> <li>External mounts. Prefix the directory with "extfile://".</li> <li>These local search paths: <ul style="list-style-type: none"> <li>/var/TKLC/upgrade/*.iso</li> <li>/var/TKLC/smac/image/isoimages/home/smacftpsr/*.iso</li> </ul> </li> </ul> <p>Note: CD and USB images mounted on PM&amp;C's VM host must first be made accessible to the PM&amp;C VM <a href="#">Management</a>.</p> <p>Path: /var/TKLC/upgrade/SDS-8.0.0.0.0_80.16.0-x86_64.iso</p> <p>Description:</p> <p><b>Add New Image</b> <b>Cancel</b></p>

## Procedure 8. Add SDS Software Images to PMAC Servers for DSR Signaling Sites

Step	Procedure	Result
10.	<b>PMAC Server GUI:</b> Click the “OK” button on the confirmation dialogue box to remove the source image after it has been successfully added to the SW Inventory	
11.	<b>PMAC Server GUI:</b> An info message will be raised to show a new background task	<b>Main Menu: Software -&gt; Manage Software Images [Add Image]</b> 
12.	<b>PMAC Server GUI:</b> Watch the extraction progress in the lower task list on the same page	
13.	<b>PMAC Server GUI:</b> When the extraction task is complete, a new software image will be displayed	
14.	<b>PMAC Server GUI:</b> Click the “Logout” link on the PMAC server GUI	
15.	<b>PMACServer GUI:</b> Load TPD ISO	If the TPD ISO hasn't been loaded onto the PMAC already, repeat <b>steps 1 through 14</b> to load it using the TPD media or ISO.
<b>THIS PROCEDURE HAS BEEN COMPLETED</b>		

## 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.

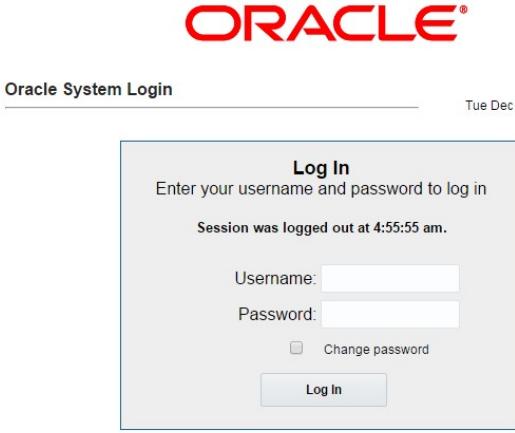
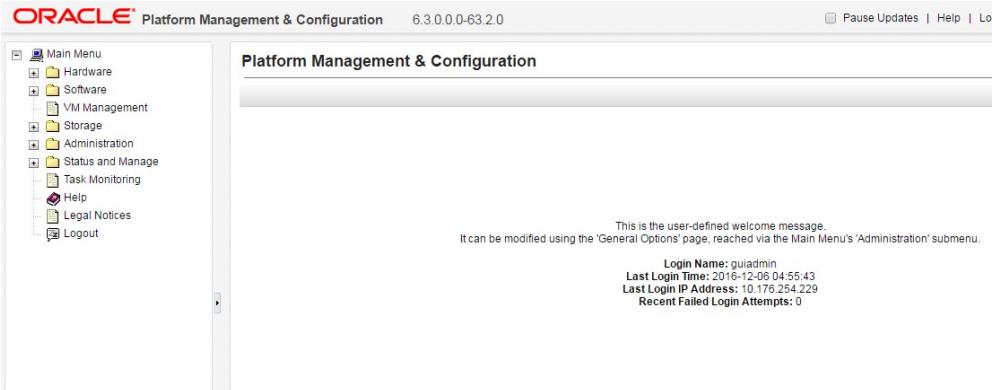
This procedure assumes that the DSR 8.0 or later OAM has already been installed in a virtual environment on the server blade, as described in as described in [5].

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.

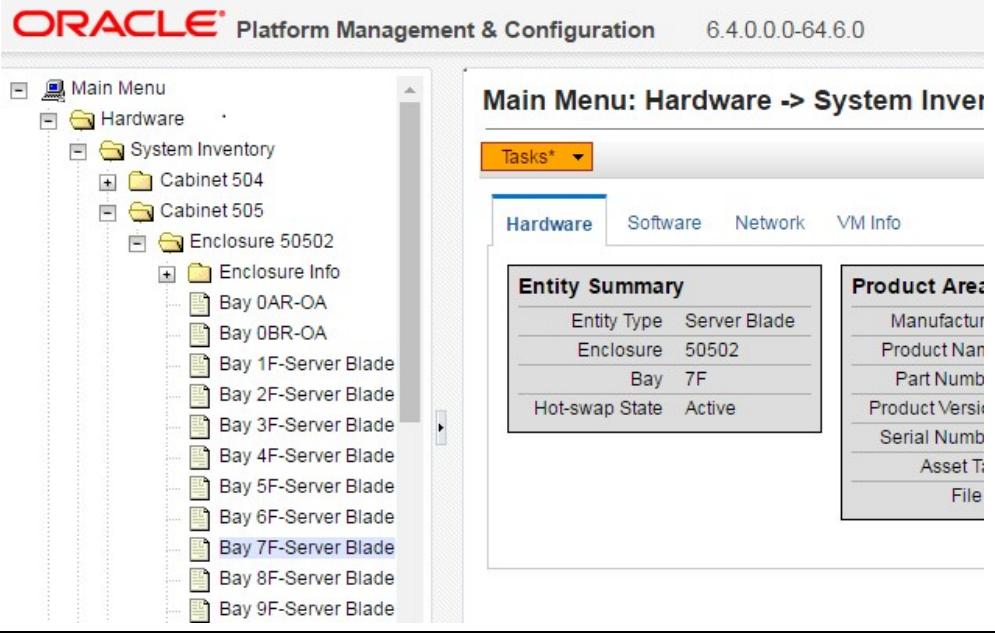
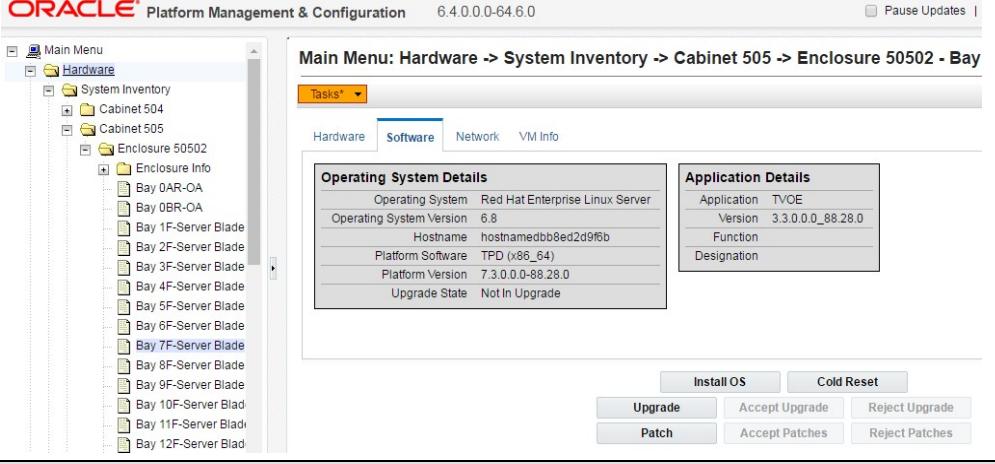
### Procedure 9. Configuring the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result
1.	<p><b>PMAC Server GUI:</b>  <input type="checkbox"/> Launch an approved web browser and connect to the <b>Mgmt IP Address</b> of the PMAC server at the SOAM site</p> <p><b>NOTE:</b> 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 host name.</p> <p>Security certificate problems may indicate an attempt to fool you or intercept your data.</p> <p><b>We recommend that you close this webpage and do not continue to this website.</b></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>

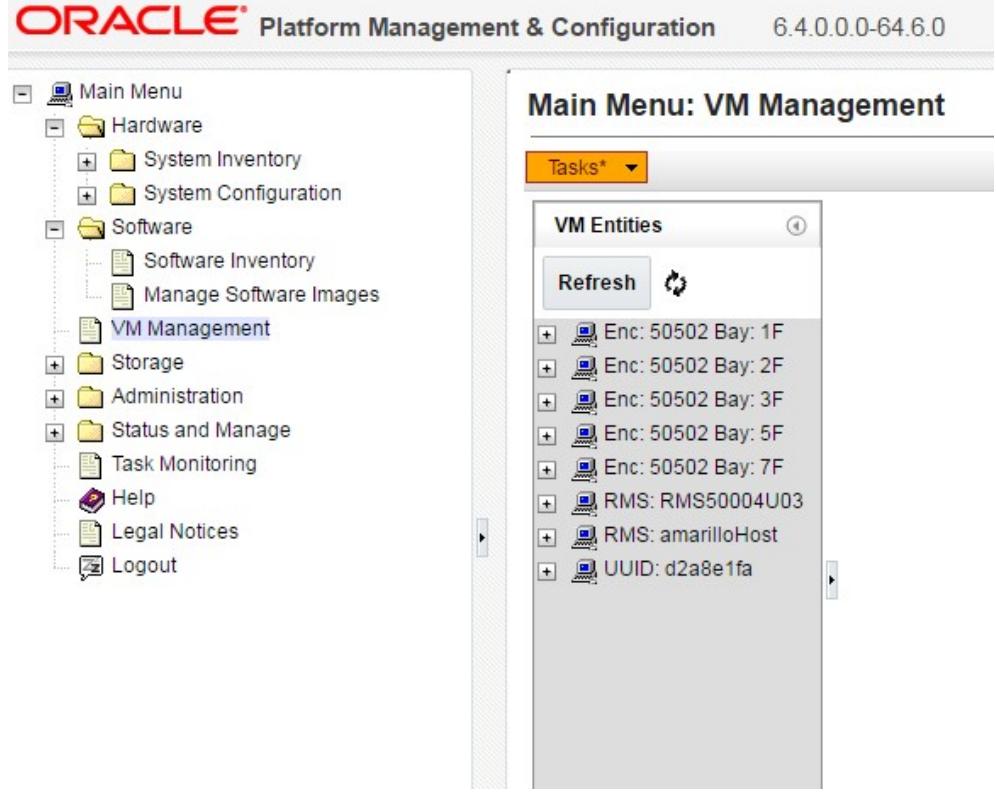
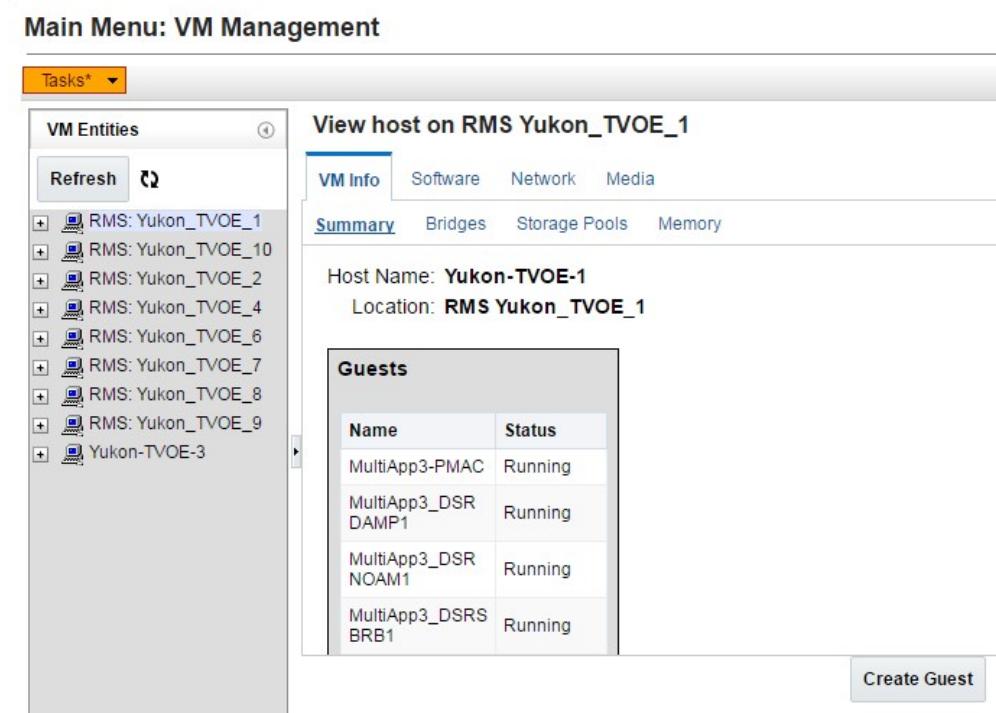
## Procedure 9. Configuring the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result
2.	<p><b>PMAC Server GUI:</b></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>This application is designed to work with most modern HTML5 compliant browsers and uses both JavaScript and cookies. Please refer to the <a href="#">Oracle Software Web Browser Support Policy</a> 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, <a href="#">Oracle</a> and/or its affiliates. All rights reserved.</p>
3.	<p><input type="checkbox"/> The user should be presented the PMAC Main Menu as shown on the right.</p>	 <p>This is the user-defined welcome message. It can be modified using the 'General Options' page, reached via the Main Menu's 'Administration' submenu.</p> <p>Login Name: guidadmin Last Login Time: 2016-12-06 04:55:43 Last Login IP Address: 10.176.254.229 Recent Failed Login Attempts: 0</p>

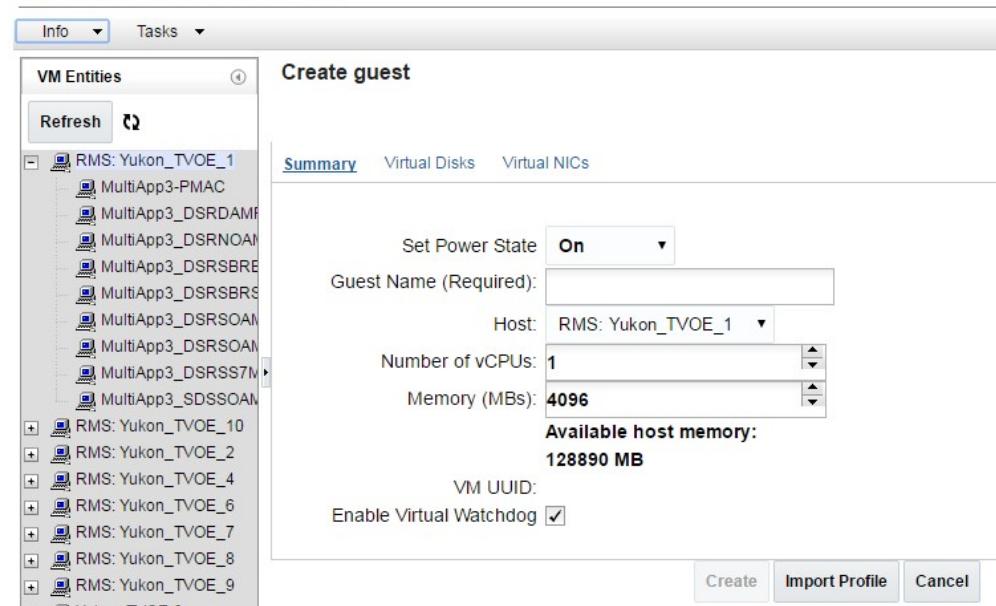
**Procedure 9. Configuring the SDS SOAM Servers (All SOAM Sites)**

Step	Procedure	Result
4.	<p><b>PMAC Server GUI:</b></p> <p><input type="checkbox"/> Select desired OAM server blade...</p> <p><b>Main Menu</b>  <b>→ Hardware</b>  <b>→ System Inventory</b>  <b>→ &lt;Enclosure&gt;</b>  <b>→ &lt;Server Blade&gt;</b></p> <p>...as shown on the right.</p>	
5.	<p><b>PMAC Server GUI:</b></p> <p><input type="checkbox"/> Select the Software tab.</p> <p>...as shown on the right.</p> <p>Verify that TVOE application has been installed.</p>	
<p><b>IF TVOE WAS NOT INSTALLED OR IS THE INCORRECT VERSION ON THE BLADE SERVER, STOP AND EXECUTE THE FOLLOWING STEPS:</b></p> <p></p> <ol style="list-style-type: none"> <li>1) Verify that the enclosure and bay number are correct.</li> <li>2) Refer [3] for TVOE Installation or Contact DSR Installation Engineer to confirm location of OAM blade and status of TVOE installation.</li> <li>3) Restart this procedure.</li> </ol> <p><b>IF TVOE WAS NOT INSTALLED OR IS THE INCORRECT VERSION ON THE BLADE SERVER, STOP AND EXECUTE THE FOLLOWING STEPS:</b></p> <p><b>NOTE:</b> It is assumed that the TVOE version corresponds with the correct DSR and SDS installation guidelines, this can be checked by executing "appRev".</p>		

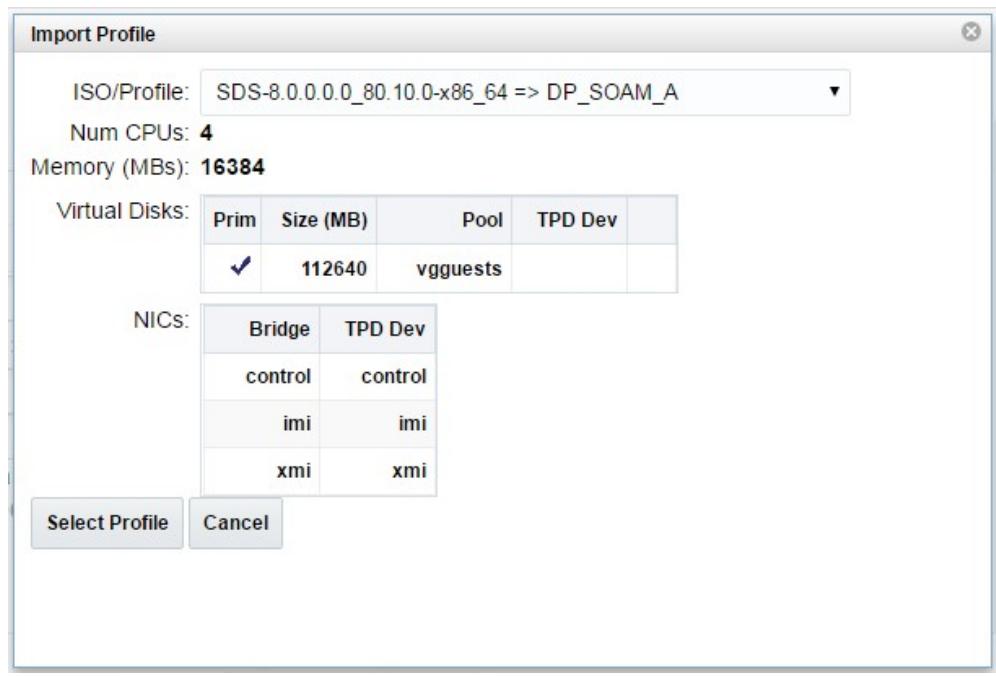
## Procedure 9. Configuring the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result										
6.	<b>PMAC Server GUI:</b> <input type="checkbox"/> Select ... <b>Main Menu</b> <b>→ VM Management</b> ...as shown on the right.	 <p>The screenshot shows the Oracle Platform Management &amp; Configuration interface. The title bar reads "ORACLE Platform Management &amp; Configuration 6.4.0.0.0-64.6.0". The left sidebar is titled "Main Menu" and contains the following items:</p> <ul style="list-style-type: none"> <li>Main Menu</li> <li>Hardware <ul style="list-style-type: none"> <li>System Inventory</li> <li>System Configuration</li> </ul> </li> <li>Software <ul style="list-style-type: none"> <li>Software Inventory</li> <li>Manage Software Images</li> <li><b>VM Management</b> (selected)</li> </ul> </li> <li>Storage</li> <li>Administration</li> <li>Status and Manage</li> <li>Task Monitoring</li> <li>Help</li> <li>Legal Notices</li> <li>Logout</li> </ul> <p>The right panel is titled "Main Menu: VM Management" and shows a list of "VM Entities". The list includes:</p> <ul style="list-style-type: none"> <li>Enc: 50502 Bay: 1F</li> <li>Enc: 50502 Bay: 2F</li> <li>Enc: 50502 Bay: 3F</li> <li>Enc: 50502 Bay: 5F</li> <li>Enc: 50502 Bay: 7F</li> <li>RMS: RMS50004U03</li> <li>RMS: amarilloHost</li> <li>UUID: d2a8e1fa</li> </ul>										
7.	<b>PMAC Server GUI:</b> <input type="checkbox"/> 1) In the VM Entities box, select the desired server ...as shown on the right.  <b>2) Click the "Create Guest" dialogue button</b>	 <p>The screenshot shows the "Main Menu: VM Management" interface. The left sidebar shows a list of VM entities:</p> <ul style="list-style-type: none"> <li>RMS: Yukon_TVOE_1</li> <li>RMS: Yukon_TVOE_10</li> <li>RMS: Yukon_TVOE_2</li> <li>RMS: Yukon_TVOE_4</li> <li>RMS: Yukon_TVOE_6</li> <li>RMS: Yukon_TVOE_7</li> <li>RMS: Yukon_TVOE_8</li> <li>RMS: Yukon_TVOE_9</li> <li><b>Yukon-TVOE-3</b> (selected)</li> </ul> <p>The right panel shows the "View host on RMS Yukon_TVOE_1" details for the selected host:</p> <ul style="list-style-type: none"> <li>Host Name: <b>Yukon-TVOE-1</b></li> <li>Location: <b>RMS Yukon_TVOE_1</b></li> </ul> <p>The "Guests" table lists the following 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>A "Create Guest" button is located at the bottom right of the guest list.</p>	Name	Status	MultiApp3-PMAC	Running	MultiApp3_DSR DAMP1	Running	MultiApp3_DSR NOAM1	Running	MultiApp3_DSRS BRB1	Running
Name	Status											
MultiApp3-PMAC	Running											
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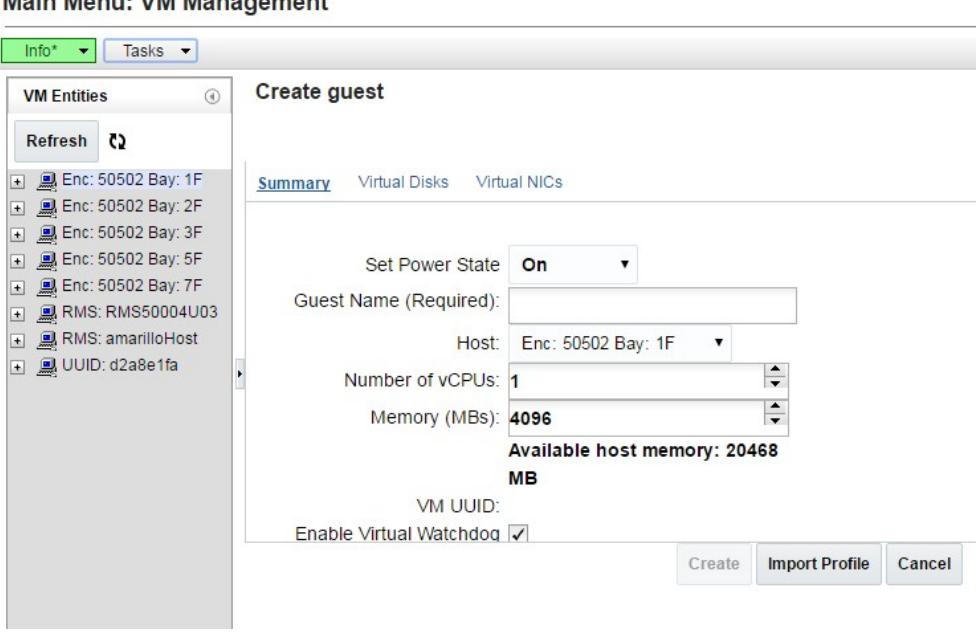
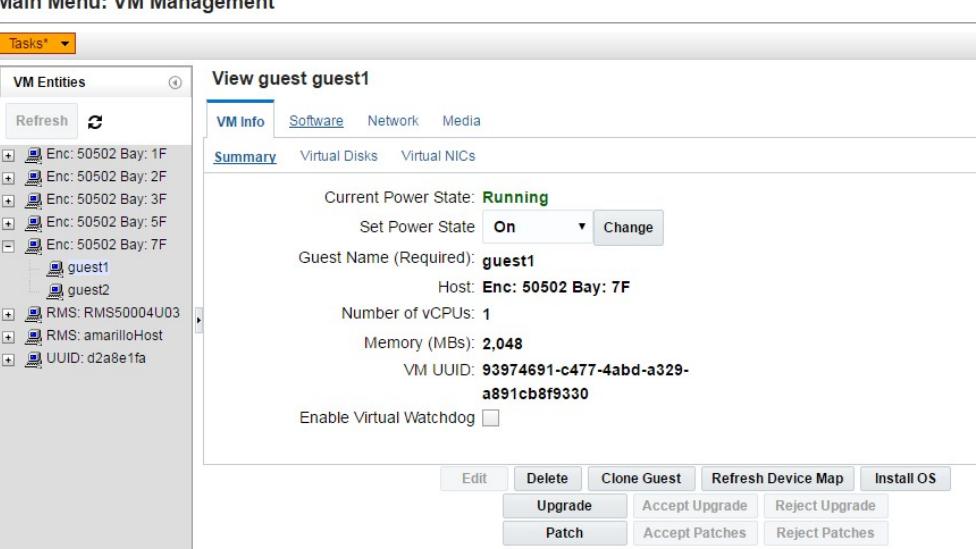
## Procedure 9. Configuring the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result
8.	<p><b>PMAC Server GUI:</b></p> <p><input type="checkbox"/> Click the “<b>Import Profile</b>” dialogue button ...as shown on the right.</p>	 <p>The screenshot shows the PMAC Server GUI with the 'VM Management' main menu selected. On the left, the 'VM Entities' tree view is expanded, showing various virtual machines and their components. On the right, the 'Create guest' dialog is open, showing fields for 'Guest Name (Required)', 'Host', 'Number of vCPUs', and 'Memory (MBs)'. The 'Available host memory' is listed as 128890 MB. The 'Import Profile' button is highlighted.</p>

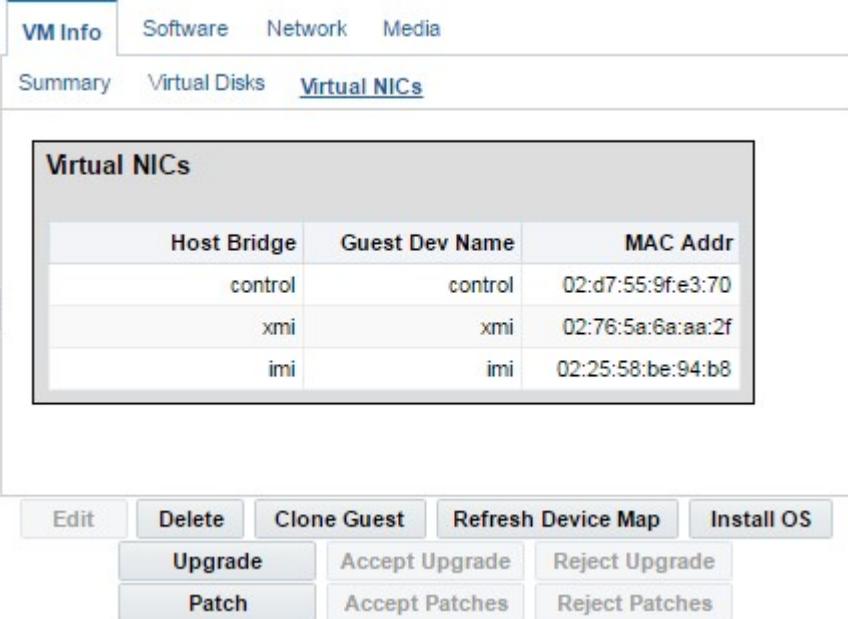
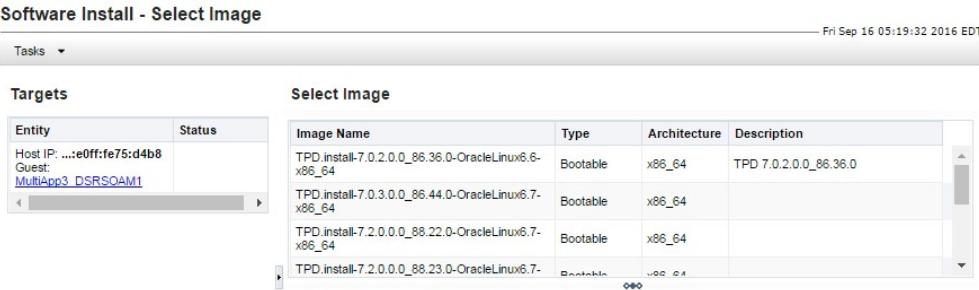
## Procedure 9. Configuring the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result																						
9.	<p><b>PMAC Server GUI:</b></p> <p>1) Select the desired ISO/Profile value ...as shown on the right.</p> <p>2) Click the “Select Profile” dialogue button</p>	<p>From the “<b>ISO/Profile</b>” drop-down box, select the entry that matches depending on the hardware that your SOAM VM TVOE server is running:</p> <table border="1"> <thead> <tr> <th>SDS Release</th> <th>TVOE HW Type (BL460 Blade Server)</th> <th>Role</th> <th>Choose Profile (&lt;Application ISO NAME&gt;) ➔</th> </tr> </thead> <tbody> <tr> <td>8.0</td> <td>GEN8 Blade</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>8.0</td> <td>GEN8/ GEN9 Blade</td> <td>SOAM-A</td> <td colspan="3">DP_SOAM_1B_RE</td></tr> </tbody> </table> <p><b>Note:</b> Application_ISO_NAME is the name of the DSR Application ISO to be installed on this SOAM</p> 	SDS Release	TVOE HW Type (BL460 Blade Server)	Role	Choose Profile (<Application ISO NAME>) ➔	8.0	GEN8 Blade	SOAM-A	DP_SOAM_A			SOAM-B	DP_SOAM_B	8.0	GEN8/ GEN9 Blade	SOAM-A	DP_SOAM_1B_RE						
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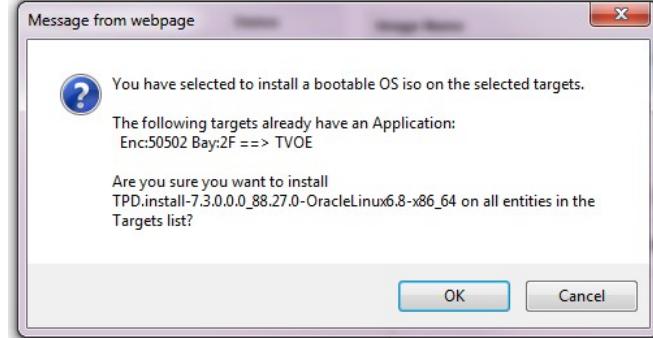
## Procedure 9. Configuring the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result
10.	<p><b>PMAC Server GUI:</b></p> <p>1) Overwrite the <b>Name</b> field with the Server host name (e.g." so-mrsvnc-a")</p> <p>2) Click the <b>"Create"</b> dialogue button</p>	
11.	<p><b>PMAC Server GUI:</b></p> <p>Verify that task successfully completes.</p> <p>The user should see a screen similar to the one on below with <b>Progress</b> value of <b>100%</b>.</p> <p><b>"Using the "Tasks" tab, verify that the task completes successfully</b></p>	 

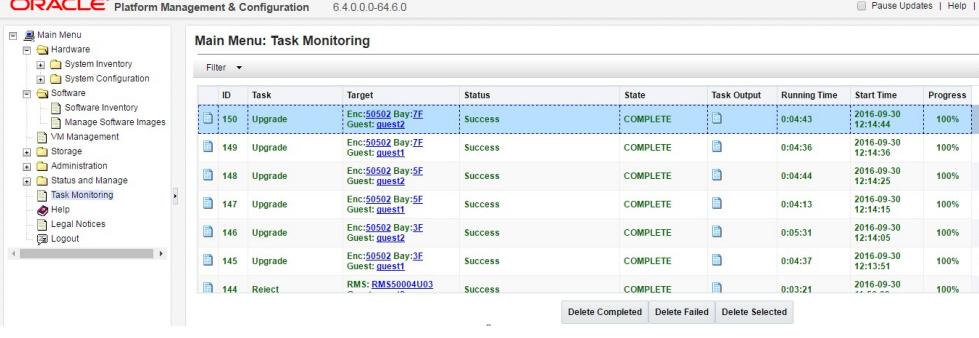
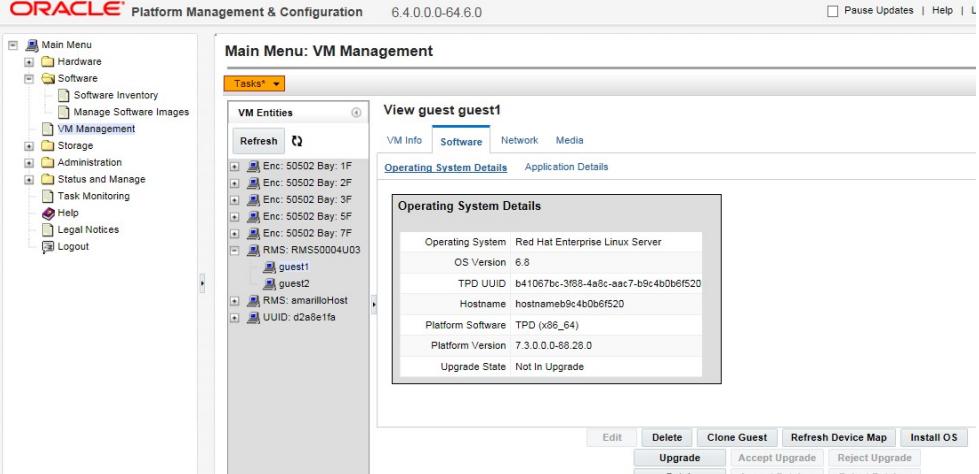
## Procedure 9. Configuring the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result																														
12.	<b>PMAC Server GUI:</b> <input type="checkbox"/> Install the operating system by clicking the “Install OS” dialogue button	 <table border="1"> <thead> <tr> <th>Host Bridge</th> <th>Guest Dev Name</th> <th>MAC Addr</th> </tr> </thead> <tbody> <tr> <td>control</td> <td>control</td> <td>02:d7:55:9f:e3:70</td> </tr> <tr> <td>xmi</td> <td>xmi</td> <td>02:76:5a:6a:aa:2f</td> </tr> <tr> <td>imi</td> <td>imi</td> <td>02:25:58:be:94:b8</td> </tr> </tbody> </table> <p>Buttons at the bottom: Edit, Delete, Clone Guest, Refresh Device Map, Install OS, Upgrade, Accept Upgrade, Reject Upgrade, Patch, Accept Patches, Reject Patches.</p>	Host Bridge	Guest Dev Name	MAC Addr	control	control	02:d7:55:9f:e3:70	xmi	xmi	02:76:5a:6a:aa:2f	imi	imi	02:25:58:be:94:b8																		
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imi	imi	02:25:58:be:94:b8																														
13.	<b>PMAC Server GUI:</b> <input type="checkbox"/> The user should see a screen similar to the one on the right.	 <table border="1"> <thead> <tr> <th>Entity</th> <th>Status</th> <th>Image Name</th> <th>Type</th> <th>Architecture</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Host IP: ...:e0ff:fe75:d4b8</td> <td></td> <td>TPD.install-7.0.2.0.0_86.36.0-OracleLinux6.6-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td>TPD 7.0.2.0.0_86.36.0</td> </tr> <tr> <td>Guest: MultiApp3_DSRSOAM1</td> <td></td> <td>TPD.install-7.0.3.0.0_86.44.0-OracleLinux6.7-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td></td> </tr> <tr> <td></td> <td></td> <td>TPD.install-7.2.0.0.0_88.22.0-OracleLinux6.7-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td></td> </tr> <tr> <td></td> <td></td> <td>TPD.install-7.2.0.0.0_88.23.0-OracleLinux6.7-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td></td> </tr> </tbody> </table>	Entity	Status	Image Name	Type	Architecture	Description	Host IP: ...:e0ff:fe75:d4b8		TPD.install-7.0.2.0.0_86.36.0-OracleLinux6.6-x86_64	Bootable	x86_64	TPD 7.0.2.0.0_86.36.0	Guest: MultiApp3_DSRSOAM1		TPD.install-7.0.3.0.0_86.44.0-OracleLinux6.7-x86_64	Bootable	x86_64				TPD.install-7.2.0.0.0_88.22.0-OracleLinux6.7-x86_64	Bootable	x86_64				TPD.install-7.2.0.0.0_88.23.0-OracleLinux6.7-x86_64	Bootable	x86_64	
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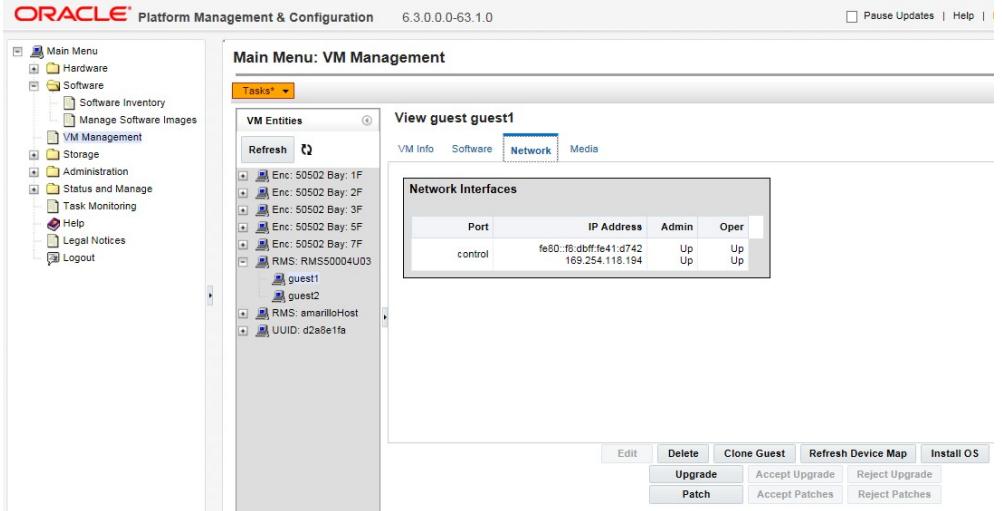
## Procedure 9. Configuring the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result																				
14.	<b>PMAC Server GUI:</b> <input type="checkbox"/> 1) Select the desired <b>TPD Image</b>  2) Click the “ <b>Start Install</b> ” dialogue button.	<p><b>Select Image</b></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><b>Supply Software Install Arguments (Optional)</b></p> <p><input type="text"/></p> <p><b>Start Software Install</b> <b>Back</b></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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15.	<b>PMAC Server GUI:</b> <input type="checkbox"/> The user should be presented with an <b>“Are you sure you want to install”</b> message box as shown on the right. Click the <b>“OK”</b> dialogue button.																					

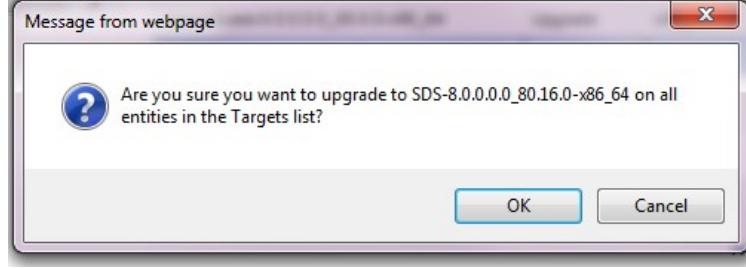
## Procedure 9. Configuring the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result
16.	<p><b>PMAC Server GUI:</b></p> <p><input type="checkbox"/> 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><b>Main Menu</b> → <b>Task Monitoring</b></p> <p><b>Wait till Progress is 100% with a Status of Success and a State of Complete.</b></p>	
17.	<p><b>PMAC Server GUI:</b></p> <ol style="list-style-type: none"> <li>1. Select [Main Menu: VM Management].</li> <li>2. Under VM Entities column, expand (+) plus sign on the Host server containing the newly created VM Guest.</li> <li>3. Select the VM Guest.</li> <li>4. Select the "Software" tab.</li> <li>5. Verify that the OS has been installed.</li> <li>6. Click on the "Application Details" tab.</li> <li>7. Verify that the "Application Details" table is blank.</li> </ol>	

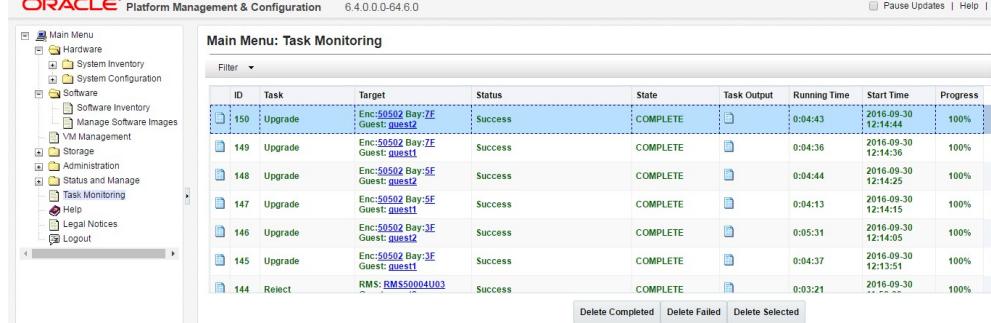
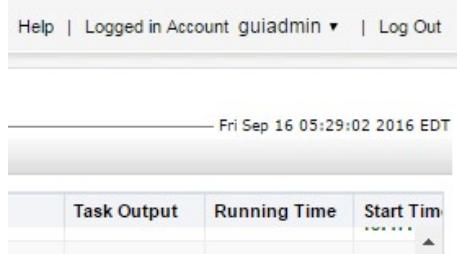
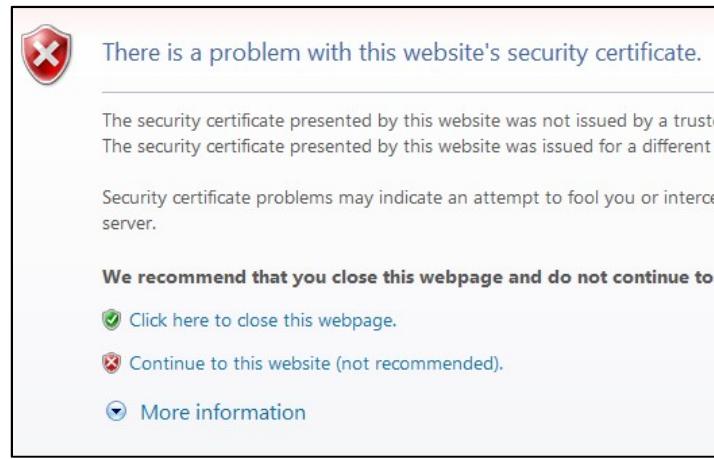
## Procedure 9. Configuring the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result																				
18.	<b>PMAC Server GUI:</b> <ol style="list-style-type: none"> <li>1) Select the "Network" tab</li> <li>2) Record the control IP address for this SOAM VM; it will be referenced later.</li> <li>3) Select the "Upgrade" dialogue button</li> </ol>																					
19.	<b>PMAC Server GUI:</b> The user should be presented the Select Image screen as shown on the right	<h3>Software Upgrade - Select Image</h3> <p>Targets</p> <table border="1"> <thead> <tr> <th>Entity</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>Host IP: ...:e0ff:fe75:d4b8</td> <td></td> </tr> <tr> <td>Guest: <a href="#">MultiApp3_SDSOAM1</a></td> <td></td> </tr> </tbody> </table> <p>Select Image</p> <table border="1"> <thead> <tr> <th>Image Name</th> <th>Type</th> </tr> </thead> <tbody> <tr> <td>apps-7.2.0.0.0_72.20.0-x86_64</td> <td>Upgrade</td> </tr> <tr> <td>DSR-7.2.0.0.0_72.18.0-x86_64</td> <td>Upgrade</td> </tr> <tr> <td>DSR-8.0.0.0.0_80.10.0-x86_64</td> <td>Upgrade</td> </tr> <tr> <td>DSR-8.0.0.0.0_80.8.0-x86_64</td> <td>Upgrade</td> </tr> <tr> <td>DSR-8.0.0.0.0_80.9.0-x86_64</td> <td>Upgrade</td> </tr> <tr> <td>mediation-7.2.0.0.0_72.20.0-x86_64</td> <td>Upgrade</td> </tr> </tbody> </table>	Entity	Status	Host IP: ...:e0ff:fe75:d4b8		Guest: <a href="#">MultiApp3_SDSOAM1</a>		Image Name	Type	apps-7.2.0.0.0_72.20.0-x86_64	Upgrade	DSR-7.2.0.0.0_72.18.0-x86_64	Upgrade	DSR-8.0.0.0.0_80.10.0-x86_64	Upgrade	DSR-8.0.0.0.0_80.8.0-x86_64	Upgrade	DSR-8.0.0.0.0_80.9.0-x86_64	Upgrade	mediation-7.2.0.0.0_72.20.0-x86_64	Upgrade
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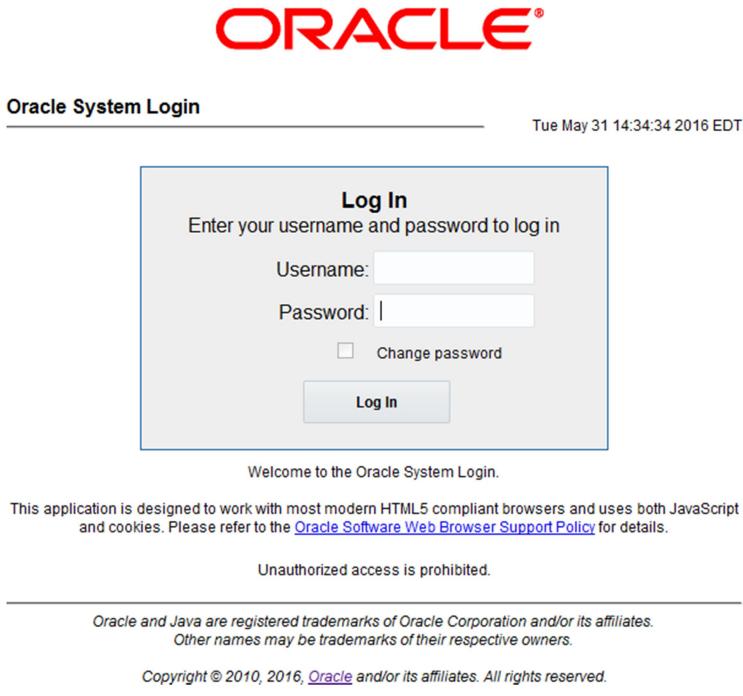
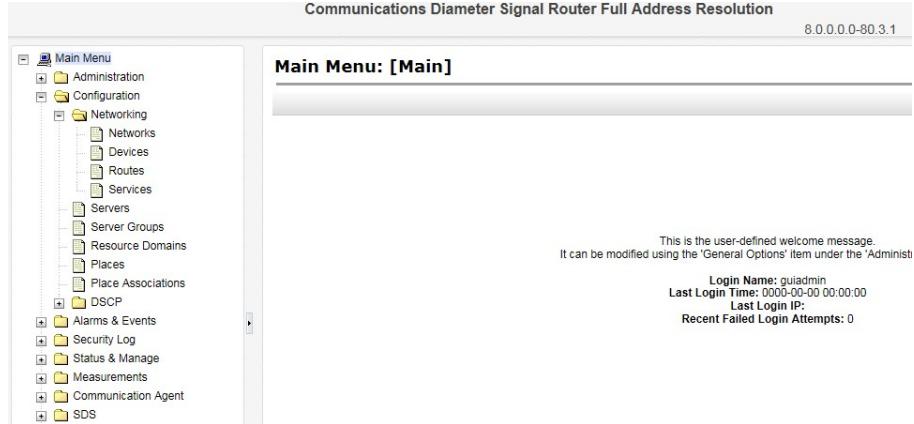
## Procedure 9. Configuring the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result																								
20.	<p><b>PMAC Server GUI:</b></p> <p><input type="checkbox"/> 1) Select the correct SDS version from the “<b>Image Name</b>” list. The line entry should now be highlighted in <b>BLUE</b>.</p> <p><input type="checkbox"/> 2) Select the “<b>Start Upgrade</b>” dialogue button</p>	<p><b>Select Image</b></p> <table border="1"> <thead> <tr> <th>Image Name</th> <th>Type</th> <th>Architecture</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>oracleGuest-8.0.0.0.0_80.8.0-x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td></td> </tr> <tr> <td>SDS-8.0.0.0.0_80.16.0-x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td style="background-color: #ADD8E6;"></td> </tr> <tr> <td>TPD.install-7.0.3.0.0.0_86.46.0-OracleLinux6.7-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td></td> </tr> <tr> <td>TPD.install-7.3.0.0.0.0_88.28.0-OracleLinux6.8-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td></td> </tr> <tr> <td>TPD.install-7.3.0.0.0.0_88.30.0-OracleLinux6.8-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td></td> </tr> </tbody> </table> <p style="text-align: center;">Supply Software Upgrade Arguments (Optional)</p> <p style="text-align: right;"><input type="button" value="Start Software Upgrade"/> <input type="button" value="Back"/></p>	Image Name	Type	Architecture	Description	oracleGuest-8.0.0.0.0_80.8.0-x86_64	Upgrade	x86_64		SDS-8.0.0.0.0_80.16.0-x86_64	Upgrade	x86_64		TPD.install-7.0.3.0.0.0_86.46.0-OracleLinux6.7-x86_64	Bootable	x86_64		TPD.install-7.3.0.0.0.0_88.28.0-OracleLinux6.8-x86_64	Bootable	x86_64		TPD.install-7.3.0.0.0.0_88.30.0-OracleLinux6.8-x86_64	Bootable	x86_64	
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21.	<p><b>PMAC Server GUI:</b></p> <p><input type="checkbox"/> The user should be presented with an “<b>Are you sure you want to upgrade</b>” message box</p> <p>....as shown on the right.</p> <p>Click the “<b>OK</b>” dialogue button.</p>																									

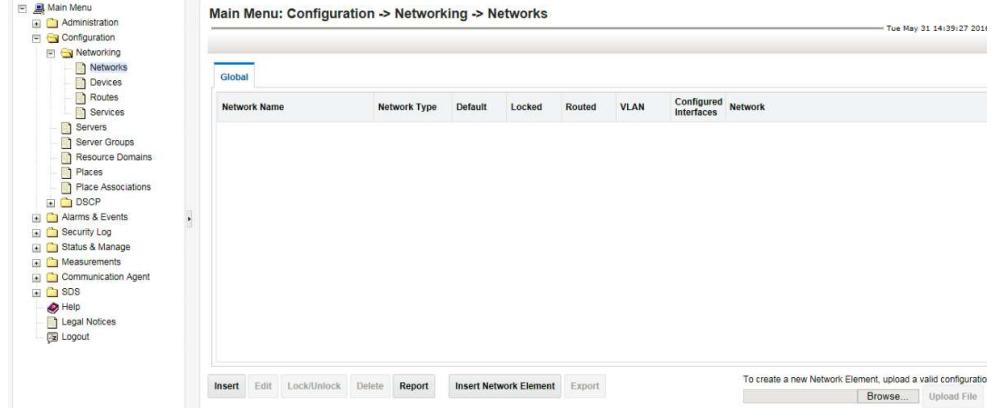
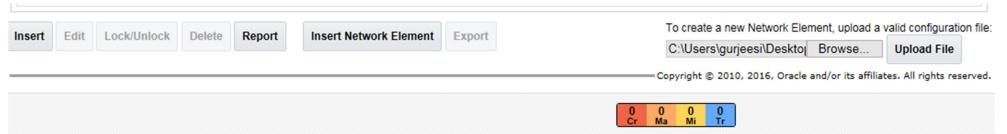
## Procedure 9. Configuring the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result
22.	<p><b>PMAC Server GUI:</b></p> <p><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><b>Main Menu</b> → <b>Task Monitoring</b></p> <p>Wait till Progress is 100% with a Status of Success and a State of Complete.</p>	
23.	<p><input type="checkbox"/> Repeat <b>Steps 4 – 22</b> of this procedure for the <b>SOAM B Server</b>.</p>	
24.	<p><input type="checkbox"/> <b>PMAC Server GUI:</b></p> <p>Click the “Logout” link on the PMAC server GUI.</p>	
25.	<p><b>Primary SDS VIP:</b></p> <p>Launch an approved web browser and connect to the XMI Virtual IP address (VIP) assigned to Active SDS site</p> <p><b>NOTE:</b> If presented with the “security certificate” warning screen shown to the right, choose the following option: <b>“Continue to this website (not recommended)”</b>.</p>	

## Procedure 9. Configuring the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result
26.	<p><b>Primary SDS VIP:</b></p> <p><input type="checkbox"/></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>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 <a href="#">Oracle Software Web Browser Support Policy</a> 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, <a href="#">Oracle</a> and/or its affiliates. All rights reserved.</p>
27.	<p><b>Primary SDS VIP:</b></p> <p><input type="checkbox"/></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 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: 0.0.0.0 Recent Failed Login Attempts: 0</p>

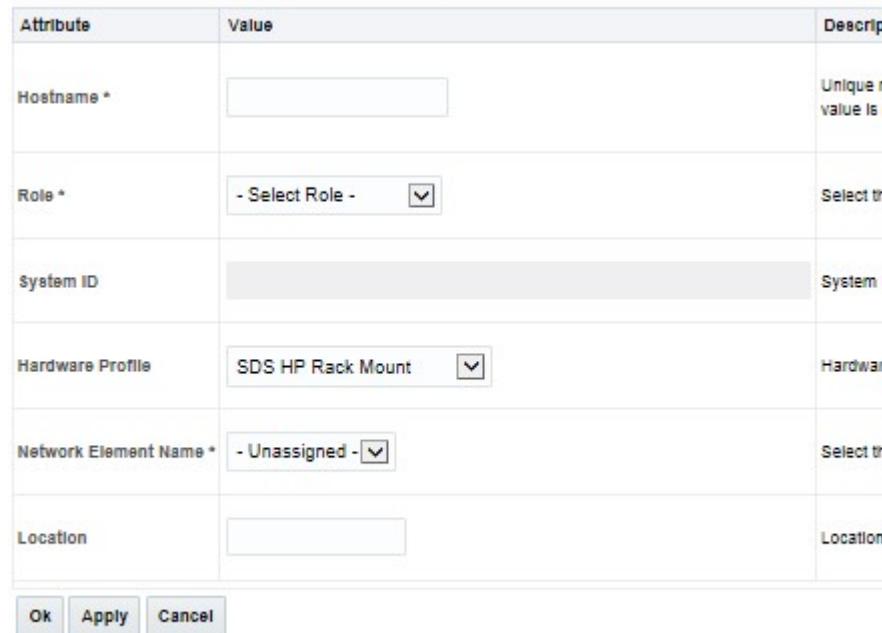
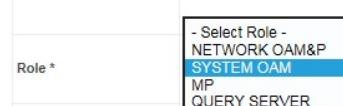
## Procedure 9. Configuring the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result
28.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Select...</p> <p><b>Main Menu</b>  <b>→ Configuration</b>  <b>→ Network Elements</b>  ...as shown on the right.</p>	
29.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> From the <b>Configuration / Network Elements</b> screen, select the “<b>Browse</b>” dialogue button</p>	
30.	<p><b>Primary SDS VIP:</b>  <b>Note:</b> This step assumes that the <b>.xml</b> files were previously prepared, as described in <b>Appendix E</b>.</p> <p><b>1)</b> Select the location containing the site <b>.xml</b> file.</p> <p><b>2)</b> Select the <b>.xml</b> file and click the “<b>Open</b>” dialogue button</p>	
31.	<p><b>Primary SDS VIP:</b>  Select the “<b>Upload File</b>” dialogue button (bottom left corner of screen)</p>	

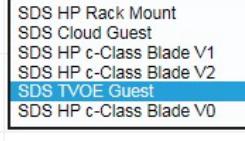
## Procedure 9. Configuring the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result															
32.	<b>Primary SDS VIP:</b> <input type="checkbox"/> If the values in the .xml file pass validation rules, the user will receive a banner information message showing that the data has been successfully validated and committed to the DB																
33.	<b>Primary SDS VIP:</b> 1) Select...  <b>Main Menu</b> <b>→ Configuration</b> <b>→ Servers</b>  ...as shown on the right.  2) Select the "Insert" dialogue button	<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&amp;P</td> <td>sds</td> </tr> <tr> <td>sds-no-b</td> <td>Network OAM&amp;P</td> <td>sds</td> </tr> <tr> <td>qs-sds-1</td> <td>Query Server</td> <td></td> </tr> <tr> <td>dr-sds-no-s</td> <td>Network OAM&amp;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-s	Network OAM&P	dr-s
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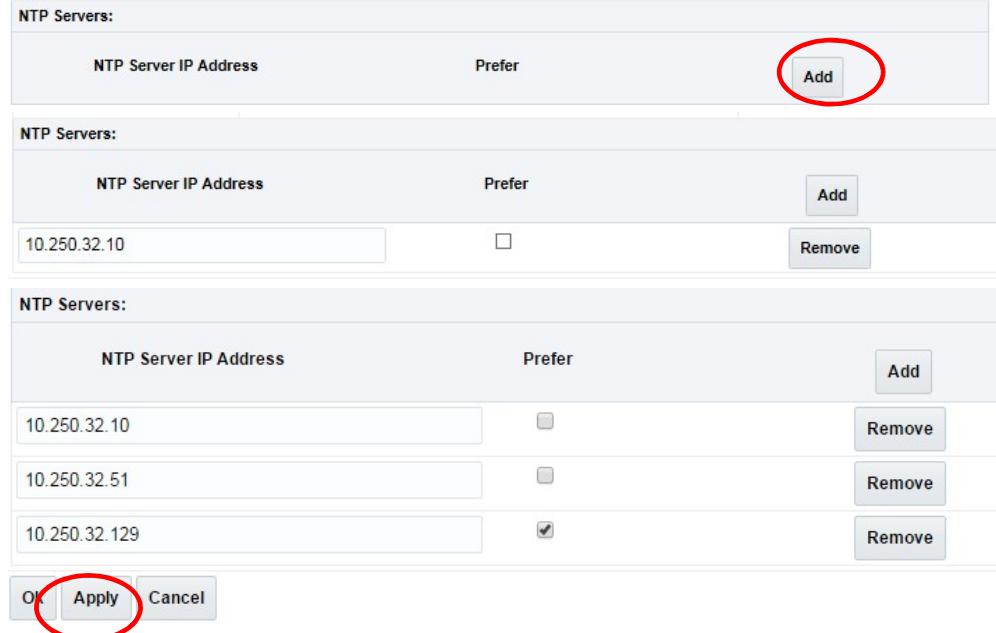
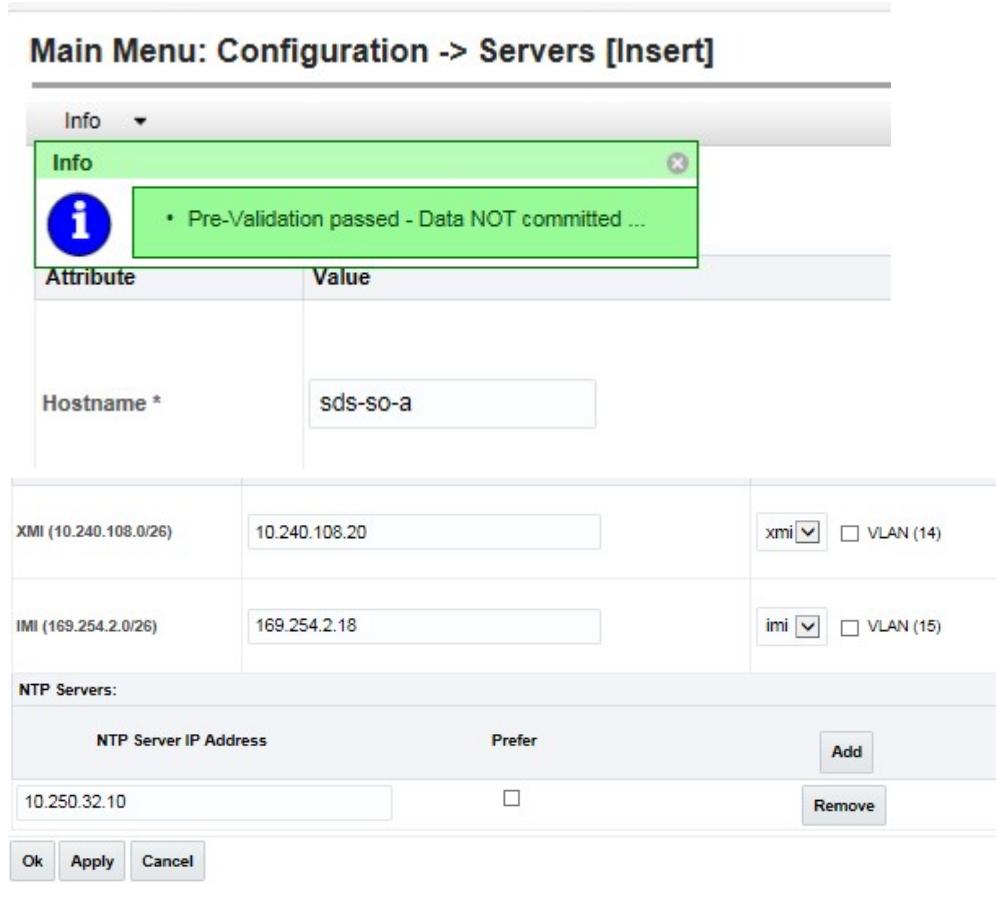
## Procedure 9. Configuring the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result																								
34.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> The user is now presented with the “Adding a new server” configuration screen.</p>	<p><b>Adding a new server</b></p>  <table border="1"> <thead> <tr> <th>Attribute</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Hostname *</td> <td></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> <tr> <td>Role *</td> <td>- Select Role -</td> <td>Select the function of the server [A value is required.]</td> </tr> <tr> <td>System ID</td> <td></td> <td>System ID for the NOAMP or Range = A 64-character string</td> </tr> <tr> <td>Hardware Profile</td> <td>SDS HP Rack Mount</td> <td>Hardware profile for the server</td> </tr> <tr> <td>Network Element Name *</td> <td>- Unassigned -</td> <td>Select the network element name [A value is required.]</td> </tr> <tr> <td>Location</td> <td></td> <td>Location for the server</td> </tr> <tr> <td colspan="3"> <input type="button" value="Ok"/> <input type="button" value="Apply"/> <input type="button" value="Cancel"/> </td> </tr> </tbody> </table>	Attribute	Value	Description	Hostname *		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.]	Role *	- Select Role -	Select the function of the server [A value is required.]	System ID		System ID for the NOAMP or Range = A 64-character string	Hardware Profile	SDS HP Rack Mount	Hardware profile for the server	Network Element Name *	- Unassigned -	Select the network element name [A value is required.]	Location		Location for the server	<input type="button" value="Ok"/> <input type="button" value="Apply"/> <input type="button" value="Cancel"/>		
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35.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Input the assigned “hostname” for SOAM Server.</p>	<table border="1"> <thead> <tr> <th>Attribute</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Hostname *</td> <td>sds-so-a</td> <td>Unique name for the server. [Default = n/a. Range = A 20-character string. Valid characters are alphanumeric and minus sign. Must start with an alphanumeric and end with an alphanumeric.] [A value is required.]</td> </tr> </tbody> </table>	Attribute	Value	Description	Hostname *	sds-so-a	Unique name for the server. [Default = n/a. Range = A 20-character string. Valid characters are alphanumeric and minus sign. Must start with an alphanumeric and end with an alphanumeric.] [A value is required.]																		
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36.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Select “<b>SYSTEM OAM</b>” for the <b>Role</b> from the pull-down menu.</p>	 <p>Select the function of the server [A value is required.]</p>																								
37.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Input the assigned hostname again as the “<b>System ID</b>” for the SO Server (A or B).</p>	 <p>System ID for the NOAMP or Range = A 64-character string</p>																								

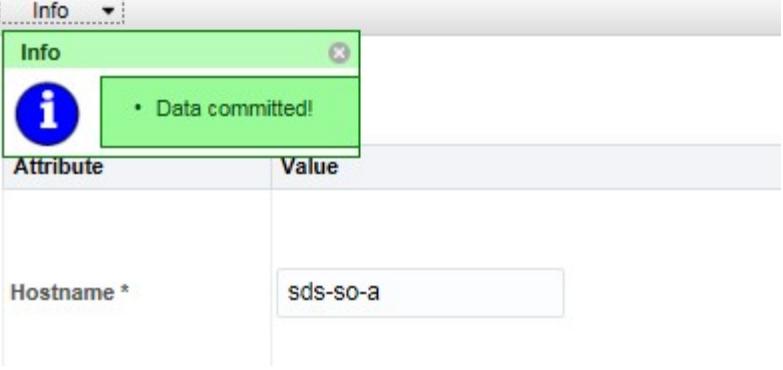
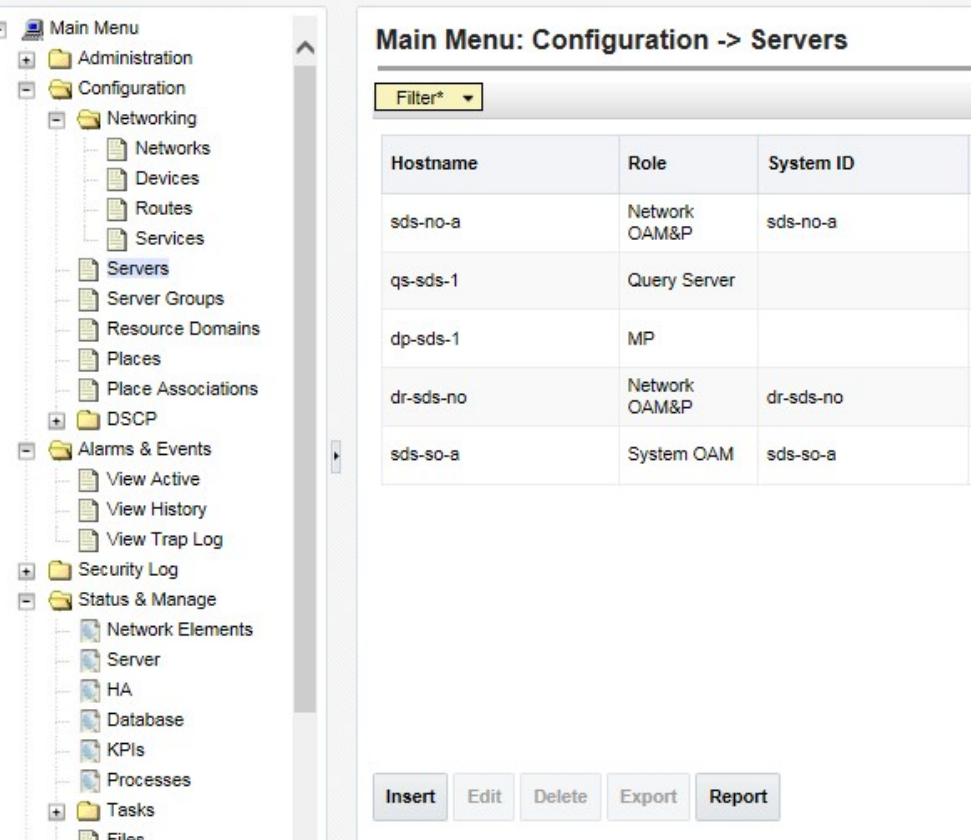
## Procedure 9. Configuring the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result										
38.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Select “<b>SDS TVOE Guest</b>” for the <b>Hardware Profile</b> for the SOAM from the pull-down menu.</p>	<p>System ID</p>  <p>Hardware Profile</p> <p>SDS HP Rack Mount SDS Cloud Guest SDS HP c-Class Blade V1 SDS HP c-Class Blade V2 <b>SDS TVOE Guest</b> SDS HP c-Class Blade V0</p>	<p>System ID for the NOAMP or SOAM Range = A 64-character string. Valid</p> <p>Hardware profile of the server</p>									
39.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Select the <b>Network Element Name</b> for the SDS from the pull-down menu.</p> <p><b>NOTE:</b> After the Network Element Name is selected, the Interfaces fields will be displayed, as seen in Step 41.</p>	<p>Network Element Name * <input type="text" value="SDS_NE"/> <input type="button" value="▼"/></p>	Select the network element [A value is required.]									
40.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Enter the site location.</p>	<p>Location <input type="text" value="Bangalore"/></p>	Location description [Default = "". Range = A 15-character string. Valid value is any text string.]									
41.	<p><b>Primary SDS VIP:</b></p> <p>1) Enter the <b>XMI IP address</b> and <b>IMI IP address</b> for the <b>SDS SOAM Server</b>.</p> <p>2) Set the <b>XMI Interface</b> to “<b>xmi</b>” and <b>DO NOT</b> check the <b>VLAN</b> checkbox.</p> <p>3) Set the <b>IMI Interface</b> to “<b>imi</b>” and <b>DO NOT</b> check the <b>VLAN</b> checkbox.</p>	<table border="1"> <thead> <tr> <th>Network</th> <th>IP Address</th> <th>Interface</th> </tr> </thead> <tbody> <tr> <td>XMI (10.240.108.0/26)</td> <td><input type="text" value="10.240.108.21"/></td> <td><input type="text" value="xmi"/> <input type="checkbox"/> VLAN (14)</td> </tr> <tr> <td>IMI (169.254.2.0/26)</td> <td><input type="text" value="169.254.2.11"/></td> <td><input type="text" value="imi"/> <input type="checkbox"/> VLAN (15)</td> </tr> </tbody> </table>	Network	IP Address	Interface	XMI (10.240.108.0/26)	<input type="text" value="10.240.108.21"/>	<input type="text" value="xmi"/> <input type="checkbox"/> VLAN (14)	IMI (169.254.2.0/26)	<input type="text" value="169.254.2.11"/>	<input type="text" value="imi"/> <input type="checkbox"/> VLAN (15)	
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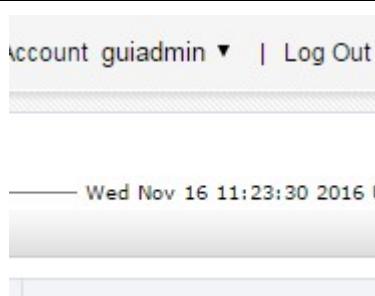
## Procedure 9. Configuring the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result																
42.	<p><b>Primary SDS VIP:</b></p> <ol style="list-style-type: none"> <li>1) Click the “NTP Servers:” “Add” dialogue button.</li> <li>2) Enter the <b>NTP Server IP Address</b> for an NTP Server.</li> <li>3) Enter 3 NTP Server <b>IP address</b>, repeat (1) and (2) to enter it.</li> <li>4) Optionally, click the “Prefer” checkbox to prefer one NTP Server over the other.</li> </ol>	 <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>10.250.32.10</td> <td><input type="checkbox"/></td> <td>Remove</td> </tr> <tr> <td>10.250.32.51</td> <td><input type="checkbox"/></td> <td>Remove</td> </tr> <tr> <td>10.250.32.129</td> <td><input checked="" type="checkbox"/></td> <td>Remove</td> </tr> </tbody> </table> <p>OK Apply Cancel</p>	NTP Server IP Address	Prefer	Add	10.250.32.10	<input type="checkbox"/>	Remove	10.250.32.51	<input type="checkbox"/>	Remove	10.250.32.129	<input checked="" type="checkbox"/>	Remove				
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43.	<p><b>Primary SDS VIP:</b></p> <ol style="list-style-type: none"> <li>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</li> <li>2) Click the “Apply” dialogue button.</li> </ol>	 <p>Main Menu: Configuration -&gt; Servers [Insert]</p> <p>Info</p> <p>Info</p> <ul style="list-style-type: none"> <li>Pre-Validation passed - Data NOT committed ...</li> </ul> <table border="1"> <thead> <tr> <th>Attribute</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>Hostname *</td> <td>sds-so-a</td> </tr> <tr> <td>XMI (10.240.108.0/26)</td> <td>10.240.108.20</td> <td>xmi <input checked="" type="checkbox"/> VLAN (14) <input type="checkbox"/></td> </tr> <tr> <td>IMI (169.254.2.0/26)</td> <td>169.254.2.18</td> <td>imi <input checked="" type="checkbox"/> VLAN (15) <input type="checkbox"/></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>10.250.32.10</td> <td><input type="checkbox"/></td> <td>Remove</td> </tr> </tbody> </table> <p>OK Apply Cancel</p>	Attribute	Value	Hostname *	sds-so-a	XMI (10.240.108.0/26)	10.240.108.20	xmi <input checked="" type="checkbox"/> VLAN (14) <input type="checkbox"/>	IMI (169.254.2.0/26)	169.254.2.18	imi <input checked="" type="checkbox"/> VLAN (15) <input type="checkbox"/>	NTP Server IP Address	Prefer	Add	10.250.32.10	<input type="checkbox"/>	Remove
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## Procedure 9. Configuring the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result																		
44.	<p><b>Primary SDS VIP:</b></p> <p><input type="checkbox"/> If the values provided match the network ranges assigned to the NE, the user will receive a banner information message showing that the data has been validated and committed</p>	<p><b>Main Menu: Configuration -&gt; Servers [Insert]</b></p>  <table border="1"> <thead> <tr> <th>Attribute</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>Hostname *</td> <td>sds-so-a</td> </tr> </tbody> </table>	Attribute	Value	Hostname *	sds-so-a														
Attribute	Value																			
Hostname *	sds-so-a																			
45.	<p><b>Primary SDS VIP:</b></p> <p><input type="checkbox"/> Select...</p> <p><b>Main Menu</b>  <b>→ Configuration</b>  <b>→ Servers</b></p> <p>...as shown on the right.</p>	 <p><b>Main Menu: Configuration -&gt; Servers</b></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&amp;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&amp;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> <p><b>Insert</b> <b>Edit</b> <b>Delete</b> <b>Export</b> <b>Report</b></p>	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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## Procedure 9. Configuring the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result																																																
46.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> On the <b>“Configuration → Servers” screen</b>, find the newly added System SOAM server in the list.</p>	<p>Main Menu: Configuration -&gt; Servers</p> <p>– Thu Jun 02 08:52:38 2016 ED</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&amp;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&amp;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><b>Primary SDS VIP:</b>  <input type="checkbox"/> Use the cursor to select the new SOAM server entry added in the <b>Step 35</b>.    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&amp;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&amp;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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48.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Select the <b>“Export”</b> dialogue button (bottom left corner of screen).</p>	<table border="1"> <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> </table> <p>Insert Edit Delete Export Report</p>	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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49.	<input type="checkbox"/> Configure the <b>SDS SOAM B server</b> .	<ul style="list-style-type: none"> <li>Repeat <b>Steps 33- 48</b> of this procedure for the <b>SDS SOAM B Server</b>.</li> </ul>																																																
50.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Click the <b>“Logout”</b> link on the SDS server GUI.</p>	 <p>Account <a href="#">guiadmin</a> ▾   Log Out</p> <p>Wed Nov 16 11:23:30 2016 UT</p>																																																
51.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Access the server console.</p>	<p>Connect to the <b>Active SDS VIP</b> console using one of the access methods described in <b>Section 2.3</b>.</p>																																																

## Procedure 9. Configuring the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result
52.	<b>Primary SDS VIP:</b> <input type="checkbox"/> Log into the server as the <b>admusr</b>	login: <b>admusr</b> Password: < <b>admusr_password</b> >
53.	<b>Primary SDS VIP:</b> <input type="checkbox"/> Change directory into the file management space.	\$ sudo <b>cd /var/TKLC/db/filemgmt</b>
54.	<b>Primary SDS VIP:</b> <input type="checkbox"/> 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.	\$ <b>ls -ltr TKLCConfigData*.sh</b>  <b>*** TRUNCATED OUTPUT ***</b> -rw-rw-rw- 1 admusr admusr 2208 Dec 19 16:37 TKLCConfigData. <b>so-carync-a.sh</b> -rw-rw-rw- 1 admusr admusr 2208 Dec 19 16:50 TKLCConfigData. <b>so-carync-b.sh</b>
55.	<b>Primary SDS VIP:</b> <input type="checkbox"/> Copy the configuration files found in the previous step to the PMAC.	\$ sudo <b>scp -p &lt;configuration_file-a&gt; &lt;configuration_file-b&gt; admusr@&lt;PMAC_Mgmt_IP&gt;:/tmp/</b> <b>admusr@10.240.39.4's password:</b> 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.	<b>Primary SDS VIP:</b> Logout of the Primary SDS CLI.	\$ <b>exit</b>
57.	<b>PMAC Server CLI:</b> Use <b>SSH</b> to login to the <b>PMAC Guest</b> VM server as the <b>admusr</b> .	login: <b>admusr</b> Password: < <b>admusr_password</b> >

## Procedure 9. Configuring the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result
58.	<b>PMAC Guest VM:</b>  Keyexchange with DP control IP	\$ keyexchange admusr@<DP_Control_IP>  Example: [admusr@nassau-enc-pmac-1 ~]\$ keyexchange admusr@192.168.1.22 The server does not know of 192.168.1.22. Will just exchange host keys for the name given! Password of admusr: Could not get authorized keys file from remote (192.168.1.22). Maybe it does not exist. Continuing... The server does not know of 192.168.1.22. Will just exchange host keys for the name given! ssh is working correctly. [admusr@nassau-enc-pmac-1 ~]\$
59.	<b>PMAC Guest VM:</b>  Copy the server configuration file to the Control IP for the SOAM.  <b>Note:</b> The Control IP for each OAM is obtained in <b>Step 18</b> of this procedure.	\$ sudo 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
60.	<b>PMAC Guest VM:</b>  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.	<b>SOAM Guest VM:</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 (shown in red) from the file name.	<b>Example:</b> 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  <b>NOTE:</b> The server will poll the /var/tmp directory for the presence of the configuration file and automatically execute it when found.

## Procedure 9. Configuring the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result
62.	<p><b>SOAM Guest VM:</b>  <input type="checkbox"/> After the script completes, a broadcast message will be sent to the terminal.</p> <p><b>NOTE:</b> <i>The user should be aware that the time to complete this step varies by server and may take from 3-20 minutes to complete.</i></p>	<p><b>*** NO OUTPUT FOR ≈ 3-20 MINUTES ***</b></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.  <b>&lt;ENTER&gt;</b></p>
63.	<p><b>SOAM Guest VM:</b>  <input type="checkbox"/> Verify that the desired Time Zone is currently in use.</p>	<pre>\$ date</pre> <p>Mon Aug 10 19:34:51 UTC 2015</p>
64.	<p><b>SOAM Guest VM:</b>  <input type="checkbox"/> If the desired Time Zone was not presented in the previous step...</p> <p><b>Configure the Time Zone.</b></p> <p>Otherwise, skip to the next step.</p>	<p><b>Example:</b> <code>\$ sudo set_ini_tz.pl &lt;time_zone&gt;</code></p> <p><b>NOTE:</b> <i>The following command example sets the time to the "UTC" (aka GMT) time zone which is recommended for all sites.</i></p> <p><i>The user may replace, as appropriate, with the customer requested time zone for this site installation. See <b>Appendix G</b> for a list of valid time zones.</i></p> <pre>\$ sudo set_ini_tz.pl "Etc/UTC"</pre>
65.	<p><b>SOAM Guest VM:</b>  <input type="checkbox"/> Initiate a reboot of the SOAM server.</p>	<pre>\$ sudo init 6</pre>
66.	<p><b>SOAM Guest VM:</b>  <input type="checkbox"/> Output similar to that shown on the right may be observed as the server initiates a reboot.</p>	<p>Connection to 192.168.1.199 closed by remote host.    Connection to 192.168.1.199 closed.</p>

## Procedure 9. Configuring the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result
67. <input type="checkbox"/>	<b>PMAC Guest VM:</b> After the SOAM server has completed reboot, re-connect to the SOAM server console from the PMAC Server Console	<pre>\$ sudo ssh &lt;SOAM_Control_IP&gt; admusr@192.168.1.199's password: &lt;admusr_password&gt;</pre>
68. <input type="checkbox"/>	<b>SOAM Guest VM:</b> 1) Verify that the <b>IMI IP address</b> input in <b>Step 41</b> has been applied as specified.  2) Verify that the <b>XMI IP address</b> input in <b>Step 41</b> has been applied as specified.	<pre>\$ ifconfig  grep in control  Link encap:Ethernet  HWaddr 52:54:00:23:DC:32           inet addr:192.168.1.199  Bcast:192.168.1.255  Mask:255.255.255.0 imi      Link encap:Ethernet  HWaddr 52:54:00:33:DC:DC           inet addr:10.240.38.78  Bcast:10.240.38.127  Mask:255.255.255.192 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>
69. <input type="checkbox"/>	<b>SOAM Guest VM:</b> Execute a “ <b>syscheck</b> ” 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 9. Configuring the SDS SOAM Servers (All SOAM Sites)

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

## Procedure 9. Configuring the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result
72.	<b>SOAM Guest B:</b> <input type="checkbox"/> From the <b>SOAM-B</b> Guest, “ping” the <b>XMI IP address</b> of the <b>SOAM-A</b> 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>
73.	<b>SOAM Guest B:</b> <input type="checkbox"/> From the <b>SOAM-B</b> Guest, “ping” the <b>XMI IP address</b> of the <b>SOAM-A</b> Guest	<pre>\$ ping -c 5 10.240.39.150 PING 10.240.39.150 (10.240.39.150) 56(84) bytes of data. 64 bytes from 10.240.39.150: icmp_seq=1 ttl=64 time=0.024 ms 64 bytes from 10.240.39.150: icmp_seq=2 ttl=64 time=0.033 ms 64 bytes from 10.240.39.150: icmp_seq=3 ttl=64 time=0.032 ms 64 bytes from 10.240.39.150: icmp_seq=4 ttl=64 time=0.026 ms 64 bytes from 10.240.39.150: icmp_seq=5 ttl=64 time=0.027 ms 64 bytes from 10.240.39.150: icmp_seq=6 ttl=64 time=0.026 ms  --- 10.240.39.150 ping statistics --- 6 packets transmitted, 6 received, 0% packet loss, time 5004ms rtt min/avg/max/mdev = 0.024/0.028/0.033/0.003 ms</pre>
74.	<b>SOAM Guest B:</b> <input type="checkbox"/> From the <b>SOAM-B</b> Guest, “ping” the local <b>XMI Gateway address</b> 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>
75.	<b>SOAM Guest VM:</b> <input type="checkbox"/> Use the “ <b>ntpq</b> ” command to verify that the server has 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>

## Procedure 9. Configuring the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result
<b>IF CONNECTIVITY TO THE NTP SERVER(S) CANNOT BE ESTABLISHED, STOP AND EXECUTE THE FOLLOWING STEPS:</b>		
 <ol style="list-style-type: none"> <li>1) Contact the customer to verify that the IP addresses for the NTP server(s) are correct.</li> <li>2) Have the customer IT group provide a network path from the OAM server IP to the assigned NTP IP addresses.</li> </ol> <b>ONCE NETWORK CONNECTIVITY IS ESTABLISHED TO THE ASSIGNED NTP IP ADDRESSES, THEN RESTART THIS PROCEDURE BEGINNING WITH STEP 75.</b>		
76.	<b>SOAM Guest VM:</b> <input type="checkbox"/> Exit from the SOAM command line to return the PMAC server console prompt.	\$ <code>exit</code>
77.	<b>PMAC Guest VM:</b> <input type="checkbox"/> Exit from the PMAC server	\$ <code>exit</code>
<b>THIS PROCEDURE HAS BEEN COMPLETED</b>		

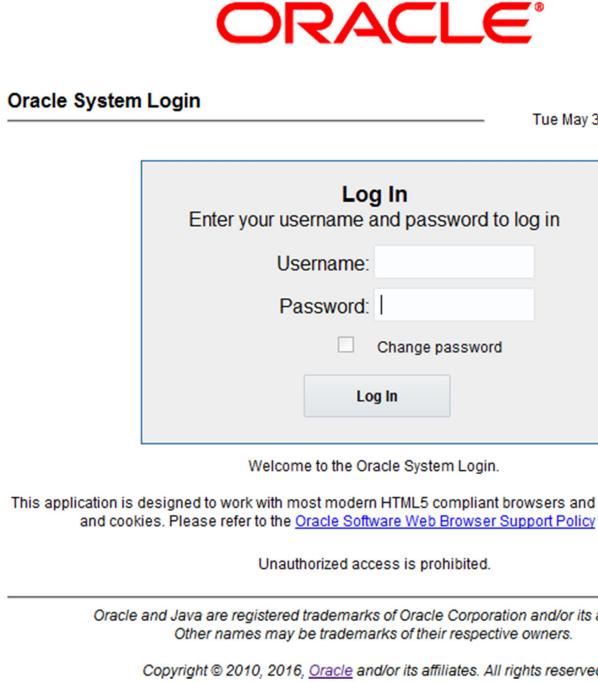
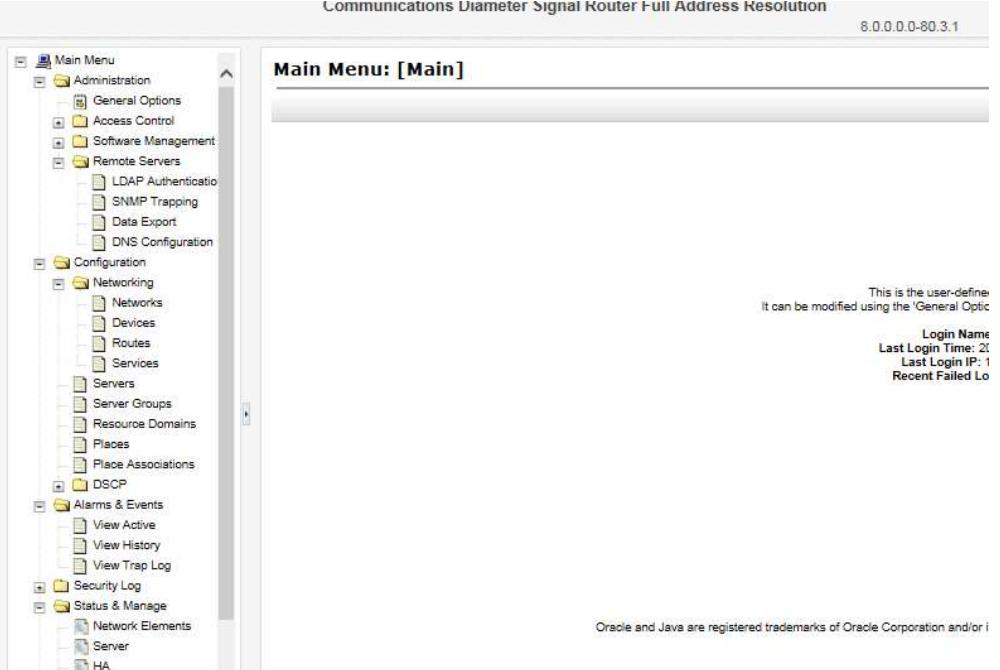
## 5.8 OAM Pairing for SDS SOAM Sites (All SOAM Sites)

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.

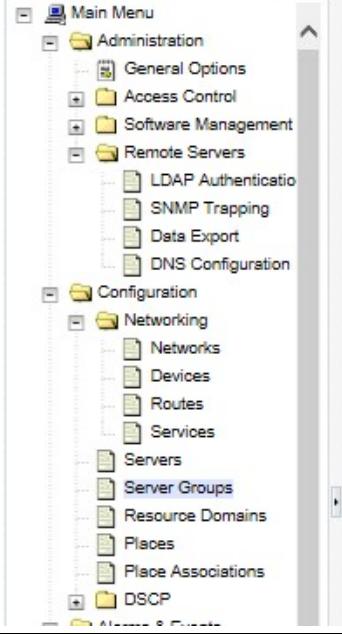
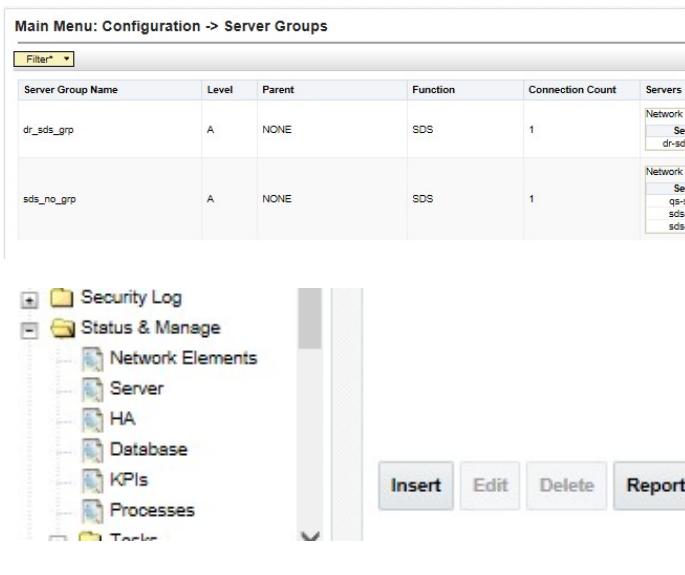
## Procedure 10. Pairing the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result
1.	<b>Primary SDS VIP:</b> <input type="checkbox"/> Launch an approved web browser and connect to the SDS VIP address  <b>NOTE:</b> If presented with the "security certificate" warning screen shown to the right, choose the following option: " <b>Continue to this website (not recommended)</b> ". 	 <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 connection.</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. Pairing the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result
2.	<p><b>Primary SDS VIP:</b></p> <p><input type="checkbox"/></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><b>Log In</b> Enter your username and password to log in</p> <p>Username: _____</p> <p>Password: _____</p> <p><input type="checkbox"/> Change password</p> <p><b>Log In</b></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 <a href="#">Oracle Software Web Browser Support Policy</a> 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>
3.	<p><b>Primary SDS VIP:</b></p> <p><input type="checkbox"/></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><b>Main Menu: [Main]</b></p> <p>Main Menu</p> <ul style="list-style-type: none"> <li>Administration</li> <li>Configuration</li> <li>Networking</li> <li>Alarms &amp; Events</li> <li>Security Log</li> <li>Status &amp; Manage</li> </ul> <p>This is the user-defined Login Name It can be modified using the 'General Optic'</p> <p>Last Login Time: 2016-05-31 14:34:34 Last Login IP: 192.168.1.100 Recent Failed Logins</p> <p>Oracle and Java are registered trademarks of Oracle Corporation and/or its affiliates.</p>

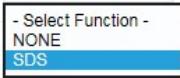
## Procedure 10. Pairing the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result																		
4.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Select...</p> <p><b>Main Menu</b>  <b>→ Configuration</b>  <b>→ Server Groups</b></p> <p>...as shown on the right.</p>	 <p><b>Main Menu: Configuration &gt; Server Groups</b></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									
Server Group Name	Level	Parent																		
dr_sds_grp	A	NONE																		
sds_no_grp	A	NONE																		
5.	<p><b>Primary SDS VIP:</b></p> <p>1) The user will be presented with the <b>“Server Groups”</b> configuration screen as shown on the right.</p> <p>2) Select the <b>“Insert”</b> dialogue button from the bottom left corner of the screen.</p> <p><b>NOTE:</b> <i>The user may need to use the vertical scroll-bar in order to make the “Insert” dialogue button visible.</i></p>	 <p><b>Main Menu: Configuration &gt; Server Groups</b></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            Server Node HA Pref VIPs            dr-sds-r0-a 10.240.108.29         </td> </tr> <tr> <td>sds_no_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>1</td> <td>           Network Element: SDS_NE_NE HA Pref: DEFAULT            Server Node HA Pref VIPs            sds-no-1 10.240.108.24            sds-no-a 10.240.108.24            sds-no-b 10.240.108.24         </td> </tr> </tbody> </table> <p><b>Insert</b> <b>Edit</b> <b>Delete</b> <b>Report</b></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 Server Node HA Pref VIPs dr-sds-r0-a 10.240.108.29	sds_no_grp	A	NONE	SDS	1	Network Element: SDS_NE_NE HA Pref: DEFAULT Server Node HA Pref VIPs sds-no-1 10.240.108.24 sds-no-a 10.240.108.24 sds-no-b 10.240.108.24
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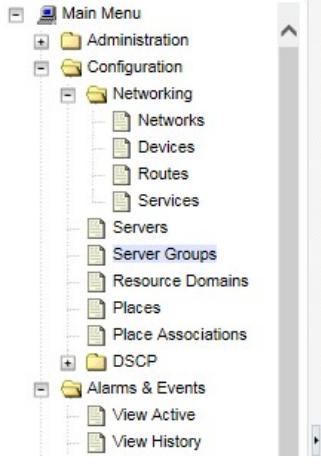
## Procedure 10. Pairing the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result																		
6.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/>  The user will be presented with the “<b>Server Groups [Insert]</b>” screen as shown on the right.    <b>NOTE:</b> Leave the “<b>WAN Replication Connection Count</b>” blank (it will default to 1).</p>	<p><b>Main Menu: Configuration &gt; Server Groups [Insert]</b></p> <p>Info ▾</p> <p><b>Adding new server group</b></p> <table border="1"> <thead> <tr> <th>Field</th><th>Value</th><th>Description</th></tr> </thead> <tbody> <tr> <td>Server Group Name *</td><td>sds_so_grp</td><td>Unique identifier used to label a Server Group. [Does contain at least one alpha and must not start with a</td></tr> <tr> <td>Level *</td><td>A</td><td>Select one of the Levels supported by the system. [A va</td></tr> <tr> <td>Parent *</td><td>NONE</td><td>Select an existing Server Group or NONE [A value</td></tr> <tr> <td>Function *</td><td>SDS</td><td>Select one of the Functions supported by the syste</td></tr> <tr> <td>WAN Replication Connection Count</td><td>1</td><td>Specify the number of TCP connections that will be = An integer between 1 and 8.]</td></tr> </tbody> </table> <p>Ok Apply Cancel</p>	Field	Value	Description	Server Group Name *	sds_so_grp	Unique identifier used to label a Server Group. [Does contain at least one alpha and must not start with a	Level *	A	Select one of the Levels supported by the system. [A va	Parent *	NONE	Select an existing Server Group or NONE [A value	Function *	SDS	Select one of the Functions supported by the syste	WAN Replication Connection Count	1	Specify the number of TCP connections that will be = An integer between 1 and 8.]
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7.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/>  Input the <b>Server Group Name</b>.</p>	<table border="1"> <thead> <tr> <th>Field</th><th>Value</th><th>Description</th></tr> </thead> <tbody> <tr> <td>Server Group Name *</td><td>sds_so_grp</td><td>Unique identifier used to label a Server Group. [Does contain at least one alpha and must not start with a</td></tr> </tbody> </table>	Field	Value	Description	Server Group Name *	sds_so_grp	Unique identifier used to label a Server Group. [Does contain at least one alpha and must not start with a												
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8.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/>  Select “<b>B</b>” on the “<b>Level</b>” pull-down menu...</p>	<p>Level *</p> <div style="border: 1px solid black; padding: 5px; width: fit-content;"> - Select Level -  A  <b>B</b>  C </div> <p>Select one of the Levels supported by the system. [A va servers. Level C groups contain MP servers.]</p>																		
9.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/>  Select the 1<sup>st</sup> SDS Site’s server group, as entered in <b>Procedure 6, Step 7</b>, on the “<b>Parent</b>” pull-down menu...</p>	<p>Parent *</p> <div style="border: 1px solid black; padding: 5px; width: fit-content;"> - Select Parent-  NONE  <b>sds_bilorenc_grp</b> </div> <p>Select an existing Server Group or NONE [A value is required.]</p>																		

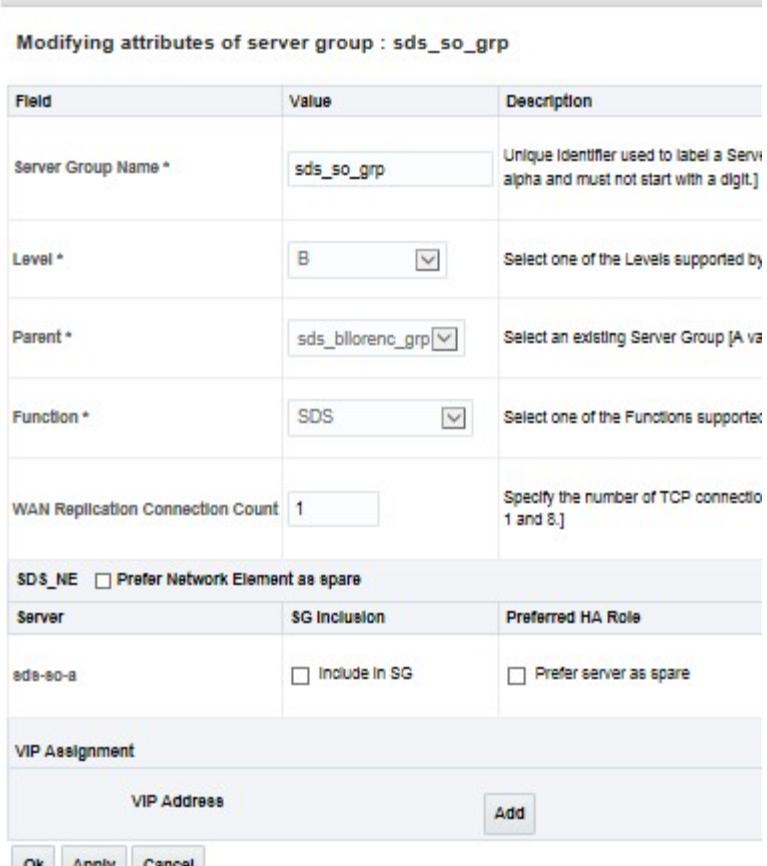
## Procedure 10. Pairing the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result															
10.	<b>Primary SDS VIP:</b> <input type="checkbox"/> Select “SDS” on the “Function” pull-down menu.	 Function * - Select Function - NONE <b>SDS</b> Select one of the Functions supported by the system [A value is required.]															
11.	<b>Primary SDS VIP:</b> 1) The user should be presented with a banner information message stating “Pre-Validation passed”. 2) Select the “Apply” dialogue button.	<b>Main Menu: Configuration -&gt; Server Groups [Insert]</b>  <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 identify the server group. It must contain at least one character.</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Parent *</th> <th>sds_billorenc_grp</th> <th>Select an existing Server Group or NONE [A value is required.]</th> </tr> </thead> <tbody> <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. The value must be an integer between 1 and 8.</td> </tr> </tbody> </table> <p>Ok</p> <p>Apply</p> <p>Cancel</p>	Field	Value	Description	Server Group Name *	sds_so_grp	Unique identifier used to identify the server group. It must contain at least one character.	Parent *	sds_billorenc_grp	Select an existing Server Group or NONE [A value is required.]	Function *	SDS	Select one of the Functions supported by the system [A value is required.]	WAN Replication Connection Count	1	Specify the number of TCP connections that will be used by replication. The value must be an integer between 1 and 8.
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12.	<b>Primary SDS VIP:</b> <input type="checkbox"/> The user should be presented with a banner information message stating “Data committed”.	<b>Main Menu: Configuration -&gt; Server Groups [Insert]</b>  <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 identify the server group. It must contain at least one character.</td> </tr> </tbody> </table>	Field	Value	Description	Server Group Name *	sds_so_grp	Unique identifier used to identify the server group. It must contain at least one character.									
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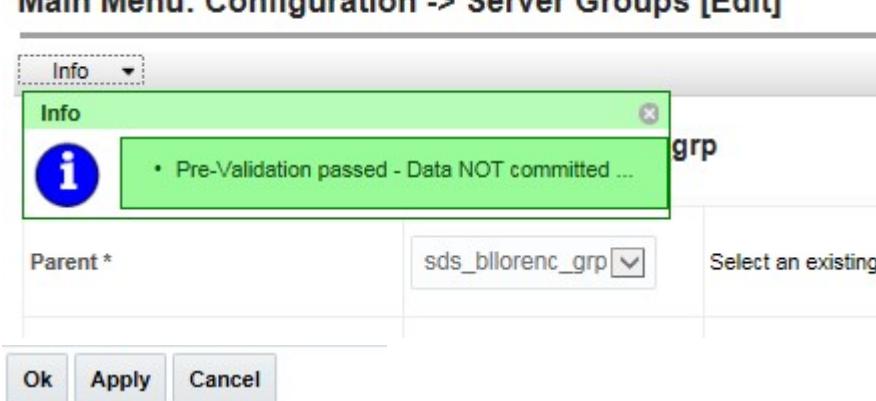
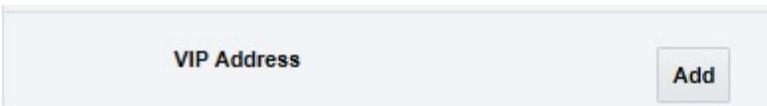
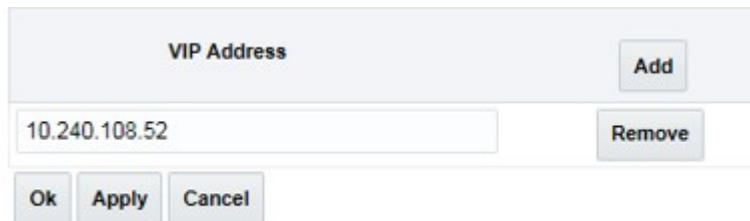
## Procedure 10. Pairing the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result																																	
14.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Select...</p> <p><b>Main Menu</b>  <b>→ Configuration</b>  <b>→ Server Groups</b>  ...as shown on the right.</p>	 <p><b>Main Menu: Configuration -&gt; Server Groups</b></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_bilorenc_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> </tr> <tr> <td>sds_so_grp</td> <td>B</td> <td>sds_bilorenc_grp</td> <td>SDS</td> </tr> </tbody> </table>	Server Group Name	Level	Parent	Function	dr_sds_grp	A	NONE	SDS	sds_bilorenc_grp	A	NONE	SDS	sds_so_grp	B	sds_bilorenc_grp	SDS																	
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15.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> The <b>Server Group</b> entry should be shown on the <b>“Server Groups”</b> configuration screen as shown on the right.</p>	<p><b>Main Menu: Configuration -&gt; Server Groups</b></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_bilorenc_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>os-sds-1</td> <td></td> <td>10.240.108.29</td> </tr> <tr> <td>sds-no-8</td> <td></td> <td>10.240.108.29</td> </tr> </tbody> </table> </td> </tr> <tr> <td>sds_so_grp</td> <td>B</td> <td>sds_bilorenc_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		sds_bilorenc_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>os-sds-1</td> <td></td> <td>10.240.108.29</td> </tr> <tr> <td>sds-no-8</td> <td></td> <td>10.240.108.29</td> </tr> </tbody> </table>	Server	Node HA Pref	VIPs	os-sds-1		10.240.108.29	sds-no-8		10.240.108.29	sds_so_grp	B	sds_bilorenc_grp	SDS	1	
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sds_so_grp	B	sds_bilorenc_grp	SDS	1																															
16.	<p><b>Primary SDS VIP:</b>  <b>1) Select the Server Group entry applied in Step 12. The line entry should now be highlighted in GREEN.</b></p> <p><b>2) Select the “Edit” dialogue button from the bottom left corner of the screen.</b></p> <p><b>NOTE:</b> The user may need to use the vertical scroll-bar in order to make the <b>“Edit”</b> dialogue button visible.</p>	<p><b>Main Menu: Configuration -&gt; Server Groups</b></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_bilorenc_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>os-sds-1</td> <td></td> <td>10.240.108.29</td> </tr> <tr> <td>sds-no-8</td> <td></td> <td>10.240.108.29</td> </tr> </tbody> </table> </td> </tr> <tr> <td>sds_so_grp</td> <td>B</td> <td>sds_bilorenc_grp</td> <td>SDS</td> <td>1</td> <td></td> </tr> </tbody> </table> <p><b>Buttons:</b> Insert, Edit, Delete, Report</p>	Server Group Name	Level	Parent	Function	Connection Count	Servers	dr_sds_grp	A	NONE	SDS	1		sds_bilorenc_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>os-sds-1</td> <td></td> <td>10.240.108.29</td> </tr> <tr> <td>sds-no-8</td> <td></td> <td>10.240.108.29</td> </tr> </tbody> </table>	Server	Node HA Pref	VIPs	os-sds-1		10.240.108.29	sds-no-8		10.240.108.29	sds_so_grp	B	sds_bilorenc_grp	SDS	1	
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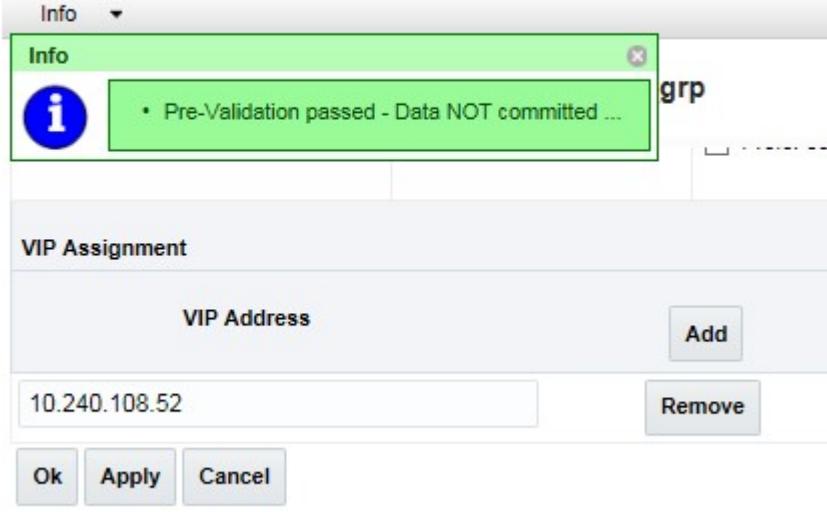
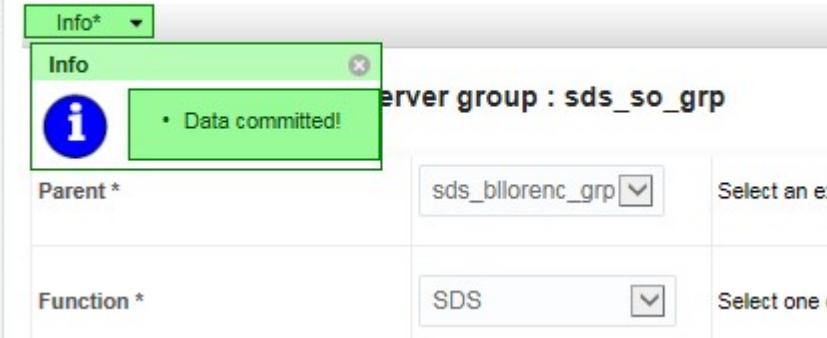
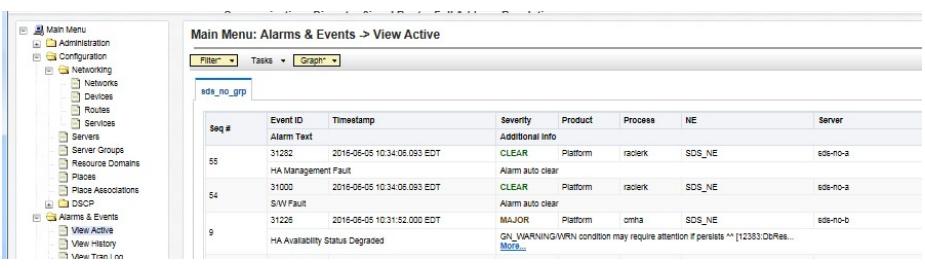
## Procedure 10. Pairing the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result						
17.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> The user will be presented with the “<b>Server Groups [Edit]</b>” screen as shown on the right.</p>	<p><b>Main Menu: Configuration &gt; Server Groups [Edit]</b></p> 						
18.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Select the “<b>A</b>” server and the “<b>B</b>” server from the list of “<b>Servers</b>” 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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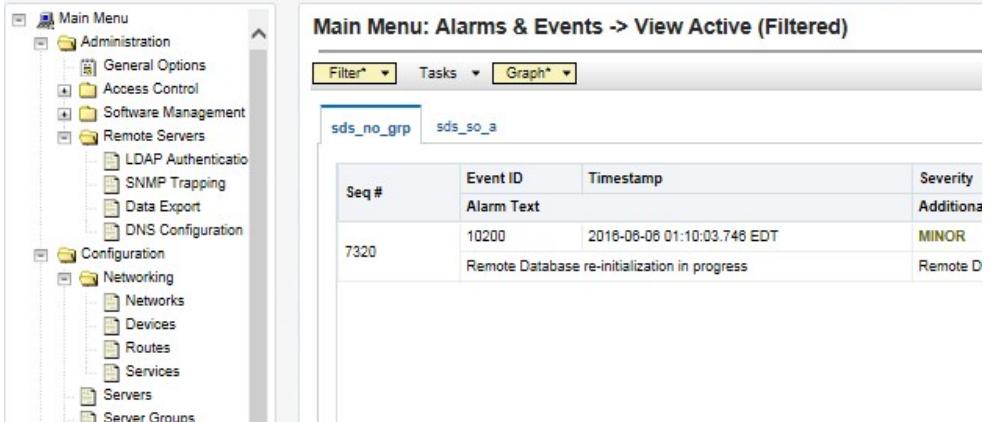
## Procedure 10. Pairing the SDS SOAM Servers (All SOAM Sites)

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

## Procedure 10. Pairing the SDS SOAM Servers (All SOAM Sites)

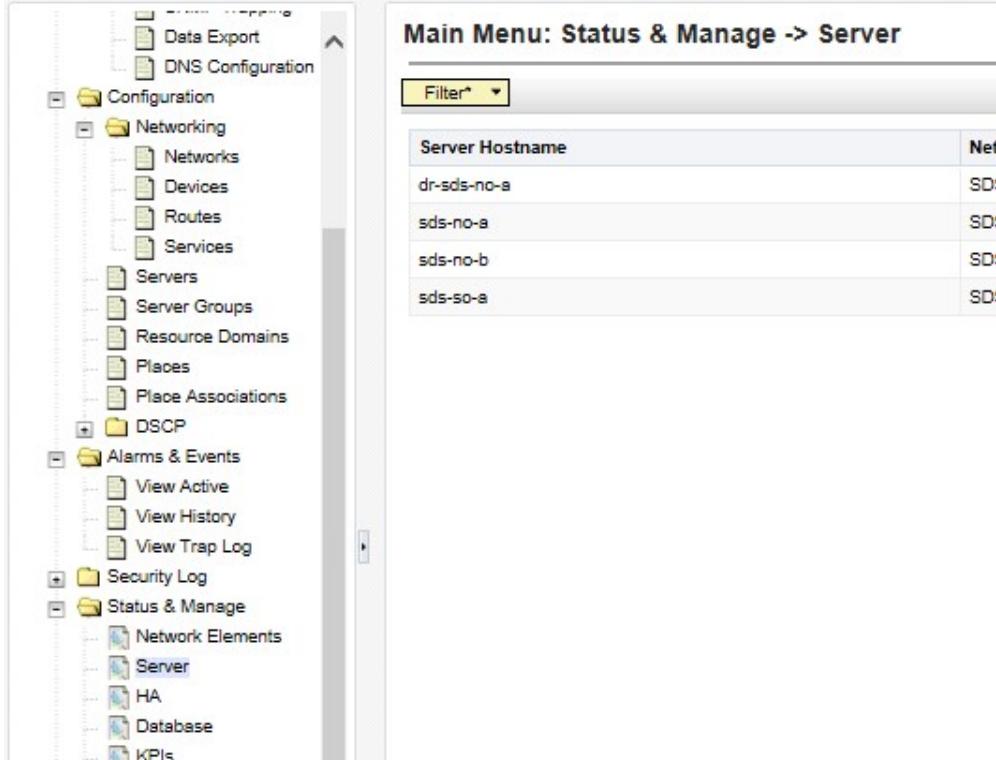
Step	Procedure	Result
24.	<p><b>Primary SDS VIP:</b></p> <p>1) The user should be presented with a banner information message stating “<b>Pre-Validation passed</b>”.</p> <p>2) Select the “<b>Apply</b>” dialogue button.</p>	<p><b>Main Menu: Configuration -&gt; Server Groups [Edit]</b></p> 
25.	<p><b>Primary SDS VIP:</b></p> <p>The user should be presented with a banner information message stating “<b>Data committed</b>”.</p>	<p><b>Main Menu: Configuration -&gt; Server Groups [Edit]</b></p> 
26.	<p><b>Primary SDS VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b>  <b>→ Alarms &amp; Events</b>  <b>→ View Active</b></p> <p>...as shown on the right.</p>	<p><b>Main Menu: Alarms &amp; Events -&gt; View Active</b></p> 

## Procedure 10. Pairing the SDS SOAM Servers (All SOAM Sites)

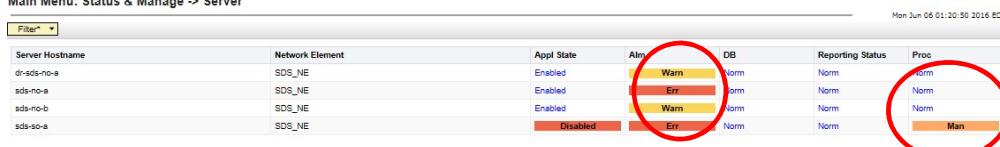
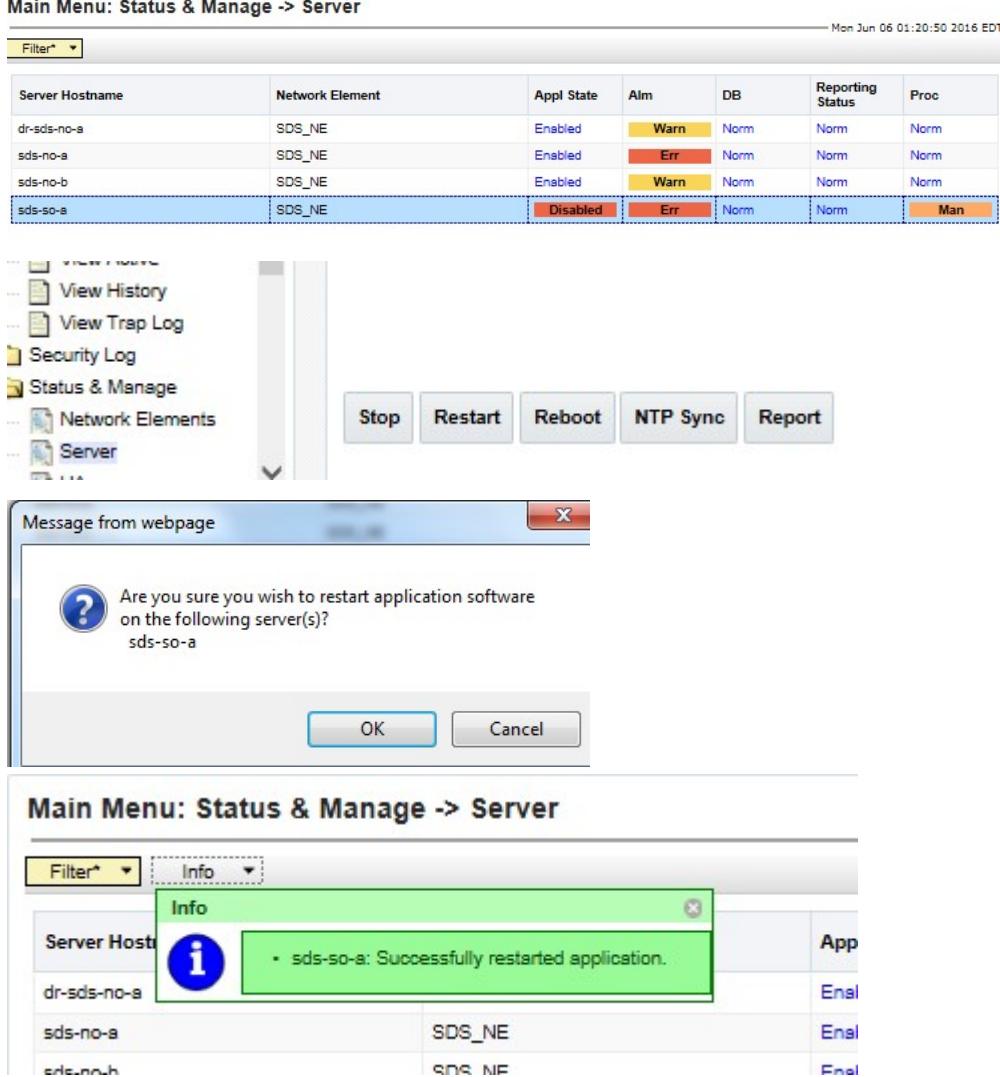
Step	Procedure	Result
27.	<p><b>Primary SDS VIP:</b> Verify that <b>Event ID 10200 (Remote Database re-initialization in progress)</b> alarms are present with the <b>SDS SOAM Server hostnames</b> in the “Instance” field..</p>	



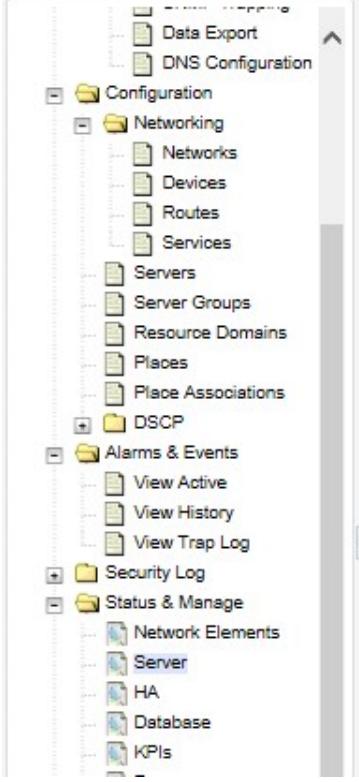
**MONITOR THE EVENT ID 10200 (Remote Database re-initialization in progress) ALARMS.**  
**DO NOT PROCEED TO THE NEXT STEP UNTIL THE ALARM CLEAR IS RECEIVED FOR BOTH SDS SOAM SERVERS.**

28.	<input type="checkbox"/> <p><b>Primary SDS VIP:</b> Select...</p> <p><b>Main Menu</b>  <b>→ Status &amp; Manage</b>  <b>→ Server</b></p> <p>...as shown on the right.</p>	
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## Procedure 10. Pairing the SDS SOAM Servers (All SOAM Sites)

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

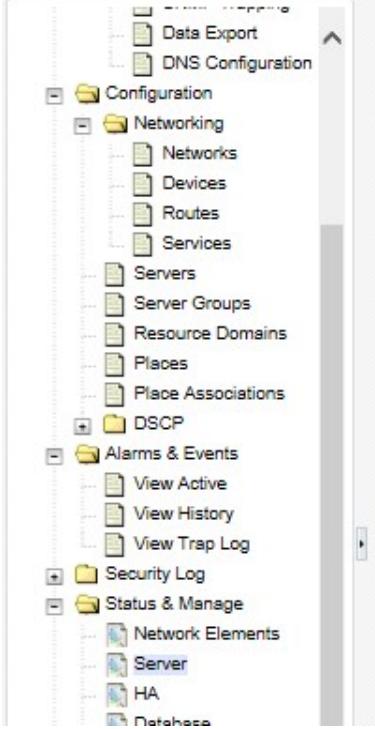
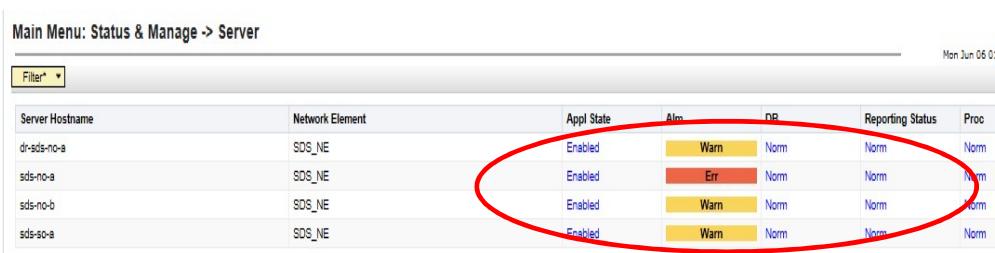
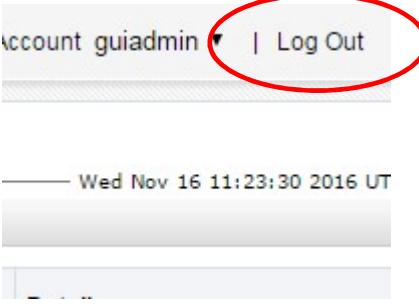
## Procedure 10. Pairing the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result																																			
31.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Select...</p> <p><b>Main Menu</b>  <b>→ Status &amp; Manage</b>  <b>→ Server</b></p> <p>...as shown on the right.</p>	 <p><b>Main Menu: Status &amp; Manage -&gt; Server</b></p> <p>Filter* ▾</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Net</th> </tr> </thead> <tbody> <tr> <td>dr-sds-no-a</td> <td>SD:</td> </tr> <tr> <td>sds-no-a</td> <td>SD:</td> </tr> <tr> <td>sds-no-b</td> <td>SD:</td> </tr> <tr> <td>sds-so-a</td> <td>SD:</td> </tr> </tbody> </table>	Server Hostname	Net	dr-sds-no-a	SD:	sds-no-a	SD:	sds-no-b	SD:	sds-so-a	SD:																									
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32.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Verify that the “Appl State” now shows “Enabled” and that the “Alm, DB, Reporting Status, &amp; Proc” status columns all show “Norm” for <b>SOAM Server A</b> before proceeding to the next Step.</p> <p><b>NOTE:</b> 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 &amp; Manage → Server” option from the Main menu on the left.</p>	<p><b>Main Menu: Status &amp; Manage -&gt; Server</b></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>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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sds-so-a	SDS_NE	Enabled	Warn	Norm	Norm	Norm																															

## Procedure 10. Pairing the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result
33.	<p><b>Primary SDS VIP:</b></p> <p><b>1)</b> Using the mouse, select <b>SOAM Server B</b>. The line entry should now be highlighted in <b>GREEN</b>.</p> <p><b>2)</b> Select the “<b>Restart</b>” dialogue button from the bottom left corner of the screen.</p> <p><b>3)</b> Click the “<b>OK</b>” button on the confirmation dialogue box.</p> <p><b>4)</b> The user should be presented with a confirmation message (in the banner area) for <b>SOAM Server B</b> stating: <b>“Successfully restarted application”</b>.</p>	

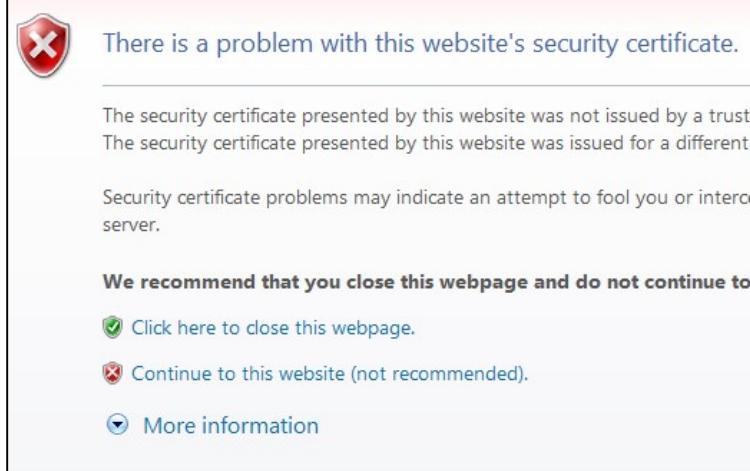
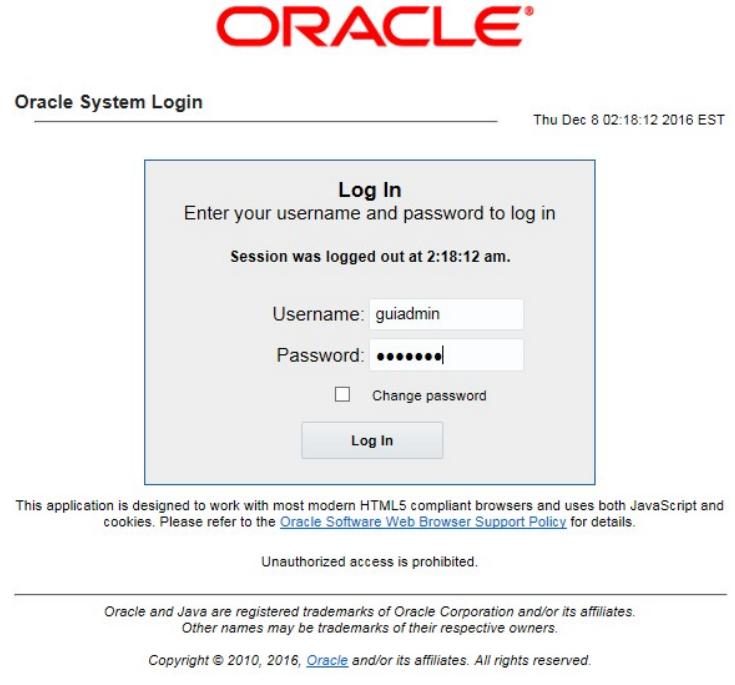
## Procedure 10. Pairing the SDS SOAM Servers (All SOAM Sites)

Step	Procedure	Result																																			
34.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Select...</p> <p><b>Main Menu</b>  <b>→ Status &amp; Manage</b>  <b>→ Server</b></p> <p>...as shown on the right.</p>	 <p><b>Main Menu: Status &amp; Manage -&gt; Server</b></p> <p>Filter* ▾</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Net</th> </tr> </thead> <tbody> <tr> <td>dr-sds-no-a</td> <td>SD:</td> </tr> <tr> <td>sds-no-a</td> <td>SD:</td> </tr> <tr> <td>sds-no-b</td> <td>SD:</td> </tr> <tr> <td>sds-so-a</td> <td>SD:</td> </tr> </tbody> </table>	Server Hostname	Net	dr-sds-no-a	SD:	sds-no-a	SD:	sds-no-b	SD:	sds-so-a	SD:																									
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35.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Verify that the “Appl State” now shows “Enabled” and that the “Alm, DB, Reporting Status &amp; Proc” status columns all show “Norm” for SOAM Server A and Server B before proceeding to the next Step.</p>	 <p><b>Main Menu: Status &amp; Manage -&gt; Server</b></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>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><b>NOTE:</b> 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 &amp; 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><b>Primary SDS VIP:</b>  <input type="checkbox"/> Click the “Logout” link on the SDS server GUI.</p>	 <p>Account <b>guiadmin</b>   <a href="#">Logout</a></p> <p>Wed Nov 16 11:23:30 2016 UT</p>																																			
<b>THIS PROCEDURE HAS BEEN COMPLETED</b>																																					

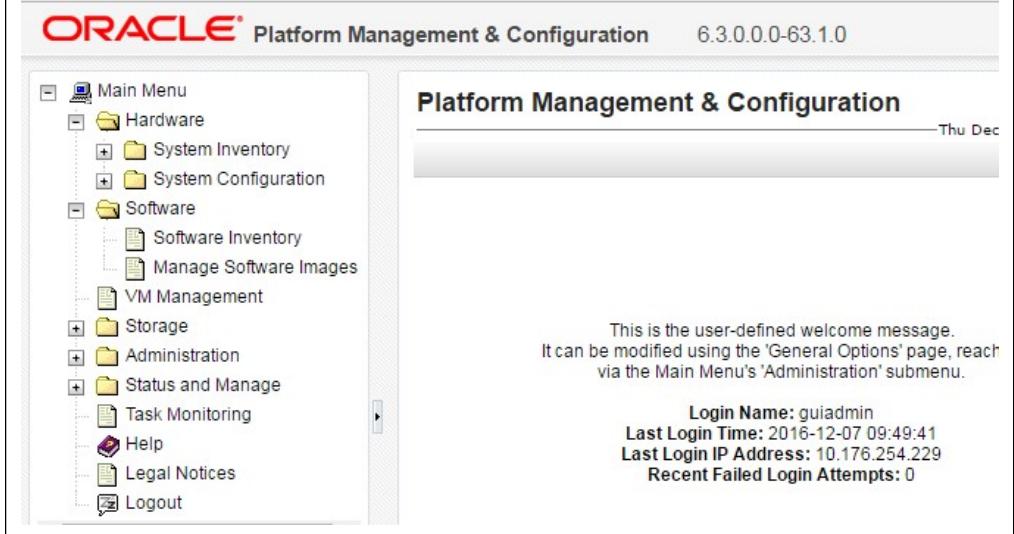
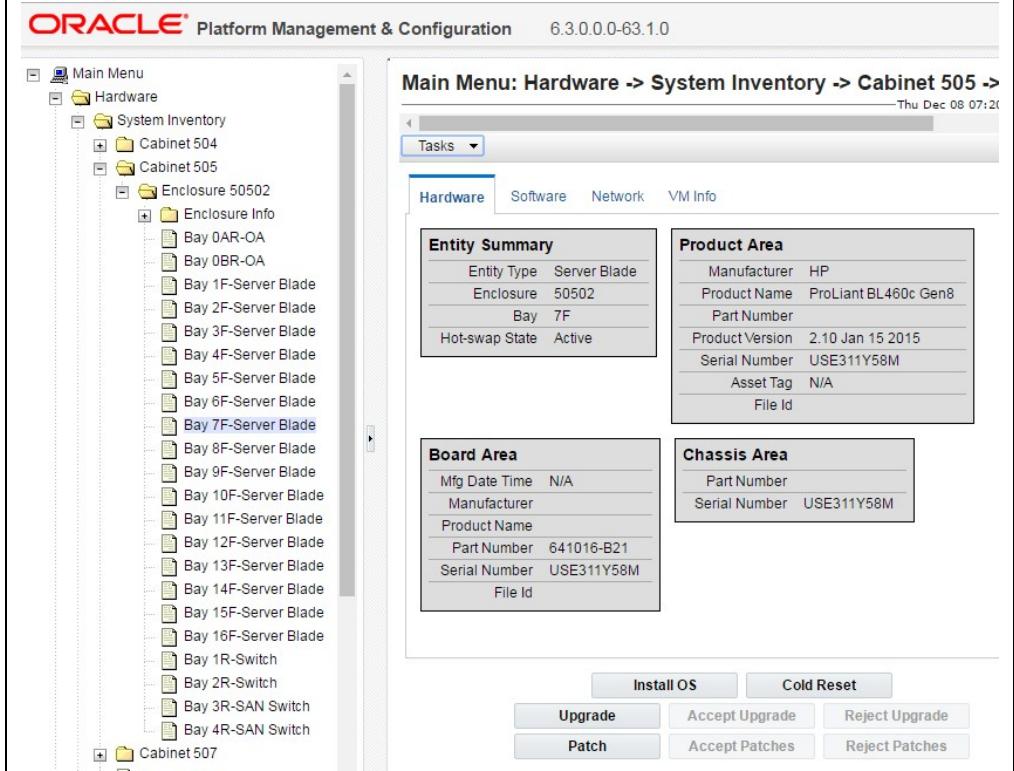
## 5.9 DP Installation (All SOAM Sites)

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.

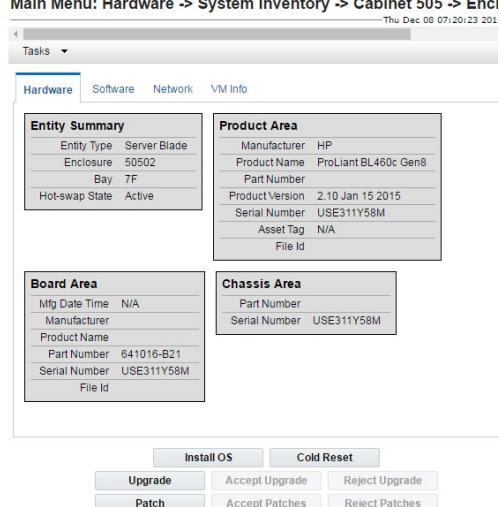
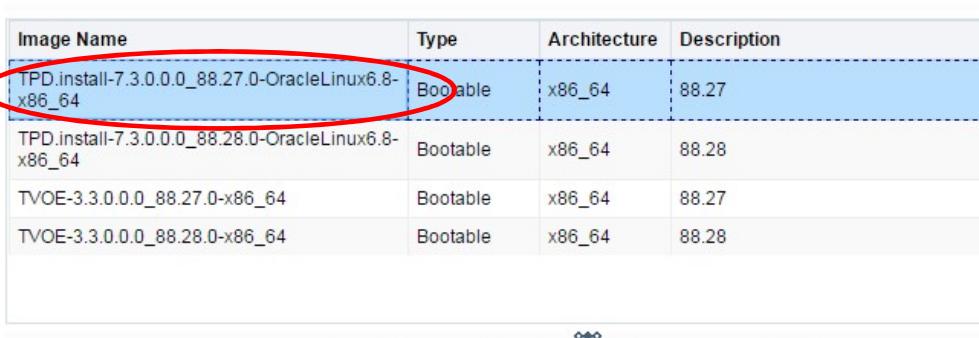
### Procedure 11. Installing the Data Processor Blade (All SOAM Sites)

Step	Procedure	Result
		 <p><b>EXECUTE Appendix I: ( <i>Disable Hyperthreading for GEN8 and GEN9 (DP Only)</i> ) ON EACH DP BLADE AFTER THIS PROCEDURE.</b></p>
1.	<p><b>PMAC Guest VM:</b>  <input type="checkbox"/> Launch an approved web browser and connect to the <b>XMI IP Address</b> of the PMAC server at the SOAM site</p> <p><b>NOTE:</b> If presented with the “security certificate” warning screen shown to the right, choose the following option: <b>“Continue to this website (not recommended)”</b>.</p>	
2.	<p><b>PMAC Guest VM:</b>  <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>	

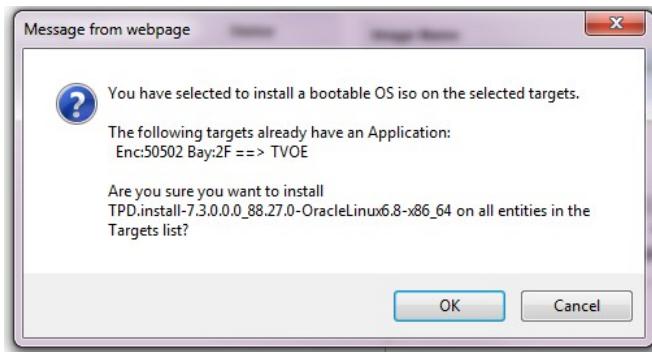
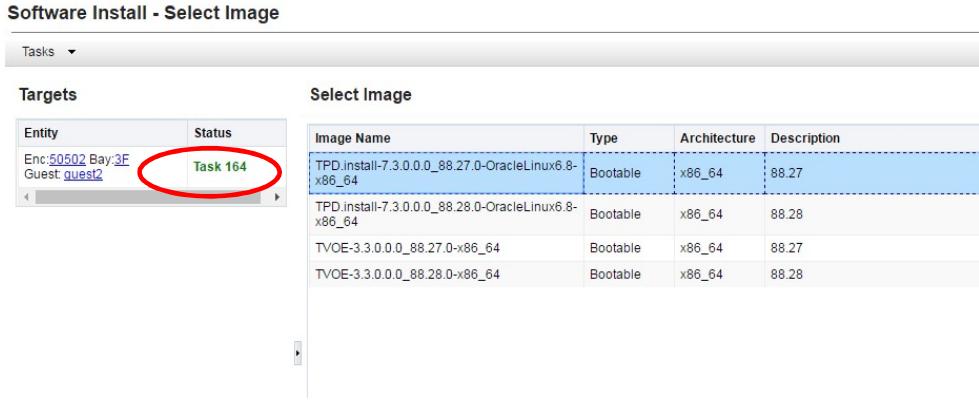
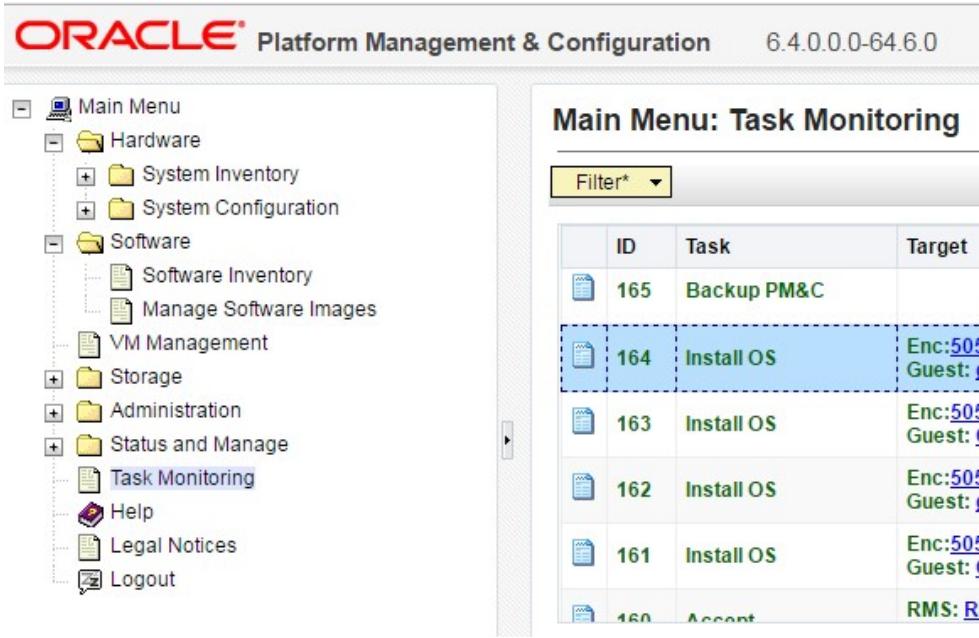
## Procedure 11. Installing the Data Processor Blade (All SOAM Sites)

Step	Procedure	Result																																						
3.	<p><b>PMAC Guest VM:</b></p> <p><input type="checkbox"/> The user should be presented the PMAC Main Menu as shown on the right...</p>	 <p>This is the user-defined welcome message. It can be modified using the 'General Options' page, reach via the Main Menu's 'Administration' submenu.</p> <p><b>Login Name:</b> guiaadmin  <b>Last Login Time:</b> 2016-12-07 09:49:41  <b>Last Login IP Address:</b> 10.176.254.229  <b>Recent Failed Login Attempts:</b> 0</p>																																						
4.	<p><b>PMAC Guest VM:</b></p> <p><input type="checkbox"/> Select the designated DP server blade from the Menu...</p> <p><b>Main Menu</b>  <b>→ Hardware</b>  <b>→ System Inventory</b>  <b>→ &lt;Cabinet&gt;</b>  <b>→ &lt;Enclosure&gt;</b>  <b>→ &lt;Server Blade&gt;</b></p> <p>...as shown on the right.</p>	 <p><b>Main Menu: Hardware -&gt; System Inventory -&gt; Cabinet 505 -&gt;</b></p> <p><b>Entity Summary</b></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><b>Product Area</b></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><b>Board Area</b></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><b>Chassis Area</b></p> <table border="1"> <tr><td>Part Number</td><td></td></tr> <tr><td>Serial Number</td><td>USE311Y58M</td></tr> </table> <p><b>Actions</b></p> <ul style="list-style-type: none"> <li>Install OS</li> <li>Cold Reset</li> <li>Upgrade</li> <li>Accept Upgrade</li> <li>Reject Upgrade</li> <li>Patch</li> <li>Accept Patches</li> <li>Reject Patches</li> </ul>	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 11. Installing the Data Processor Blade (All SOAM Sites)

Step	Procedure	Result																				
5.	<b>PMAC Guest VM:</b> <input type="checkbox"/> Install the operating system by clicking the “Install OS” dialogue button																					
6.	<b>PMAC Guest VM:</b> <input type="checkbox"/> 1) Select the desired TPD Image  2) Click the “Start Software Install” dialogue button	 <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> <b>Select Image</b>  <b>Supply Software Install Arguments (Optional)</b>  <input type="button" value="Start Software Install"/> <input type="button" value="Back"/>	Image Name	Type	Architecture	Description	TPD.install-7.3.0.0.0_88.27.0-OracleLinux6.8-x86_64	Bootable	x86_64	88.27	TPD.install-7.3.0.0.0_88.28.0-OracleLinux6.8-x86_64	Bootable	x86_64	88.28	TVOE-3.3.0.0.0_88.27.0-x86_64	Bootable	x86_64	88.27	TVOE-3.3.0.0.0_88.28.0-x86_64	Bootable	x86_64	88.28
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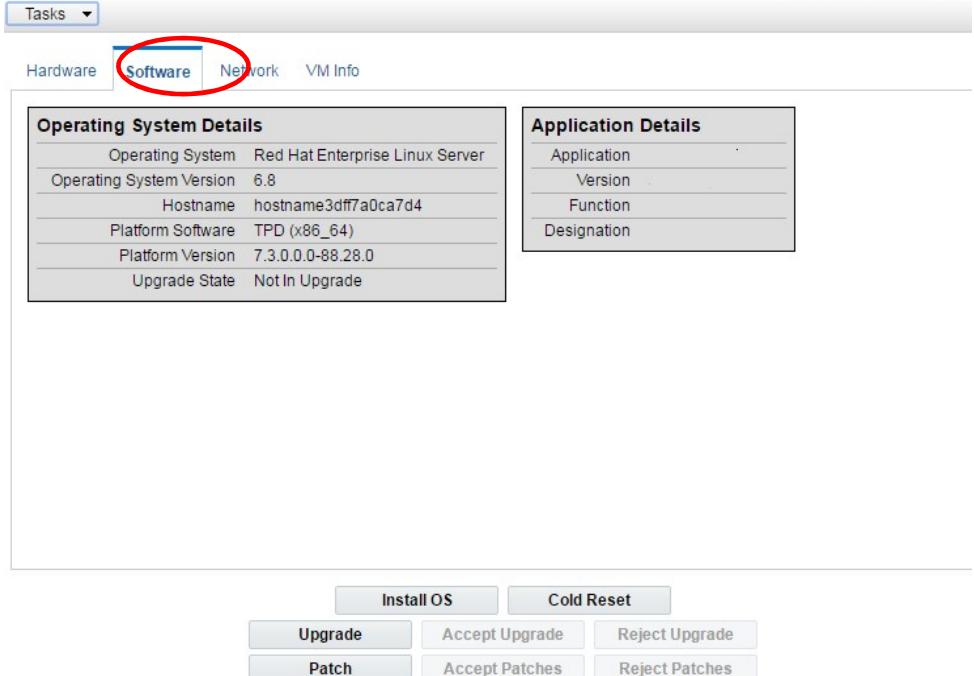
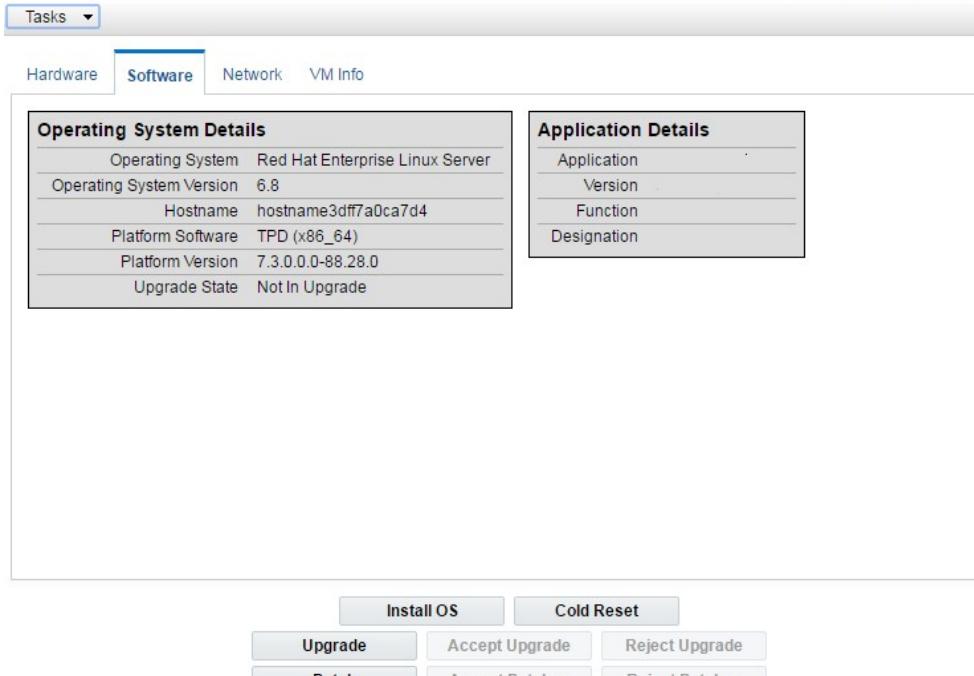
## Procedure 11. Installing the Data Processor Blade (All SOAM Sites)

Step	Procedure	Result
7.	<p><b>PMAC Guest VM:</b></p> <p>The user should be presented with an <b>“Are you sure you want to install”</b> message box as shown on the right.</p> <p>Click the <b>“OK”</b> dialogue button</p>	
8.	<p><b>PMAC Guest VM:</b></p> <p>Note the task number assigned to SDS Application upgrade. This number will be used to track its progress.</p> <p>This task takes up to ~25 minutes.</p>	<p><b>Software Install - Select Image</b></p> 
9.	<p><b>PMAC Guest VM:</b></p> <p>Execute <b>“Install OS”</b> for each additional <b>DP Server</b>.</p>	<ul style="list-style-type: none"> <li>Repeat Steps 3 – 9 of this procedure for each additional <b>DP server blade</b> in the <b>SOAM</b> enclosure.</li> </ul>
10.	<p><b>PMAC Guest VM:</b></p> <p>1) Select... <b>Main Menu</b> → <b>Task Monitoring</b> ...as shown on the right.</p>	

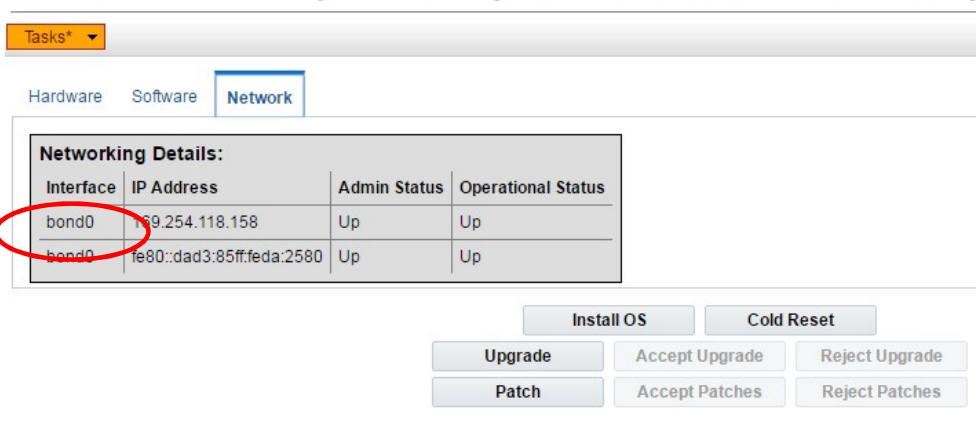
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12.	<p><b>PMAC Guest VM:</b></p> <p><input type="checkbox"/> Re-select the designated DP server blade from the Menu...</p> <p><b>Main Menu</b></p> <p>→ <b>Hardware</b></p> <p>→ <b>System Inventory</b></p> <p>→ &lt;Cabinet&gt;</p> <p>→ &lt;Enclosure&gt;</p> <p>→ &lt;Server Blade&gt;</p> <p>...as shown on the right.</p>	<p><b>ORACLE® Platform Management &amp; Configuration 6.4.0.0.0-64.6.0</b></p> <p><b>Platform Management &amp; Configuration</b> <small>Thu Dec</small></p> <p>This is the user-defined welcome message. It can be modified using the 'General Options' page, reach via the Main Menu's 'Administration' submenu.</p> <p>Login Name: guiaadmin Last Login Time: 2016-12-07 09:49:41 Last Login IP Address: 10.176.254.229 Recent Failed Login Attempts: 0</p>																																																						

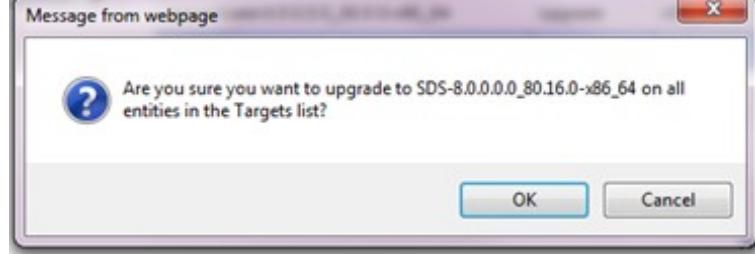
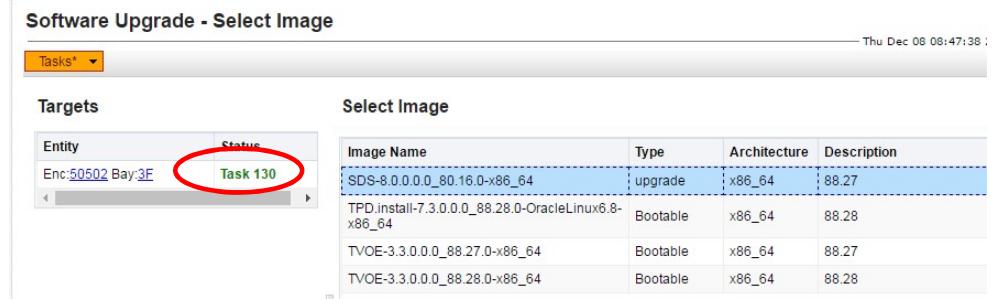
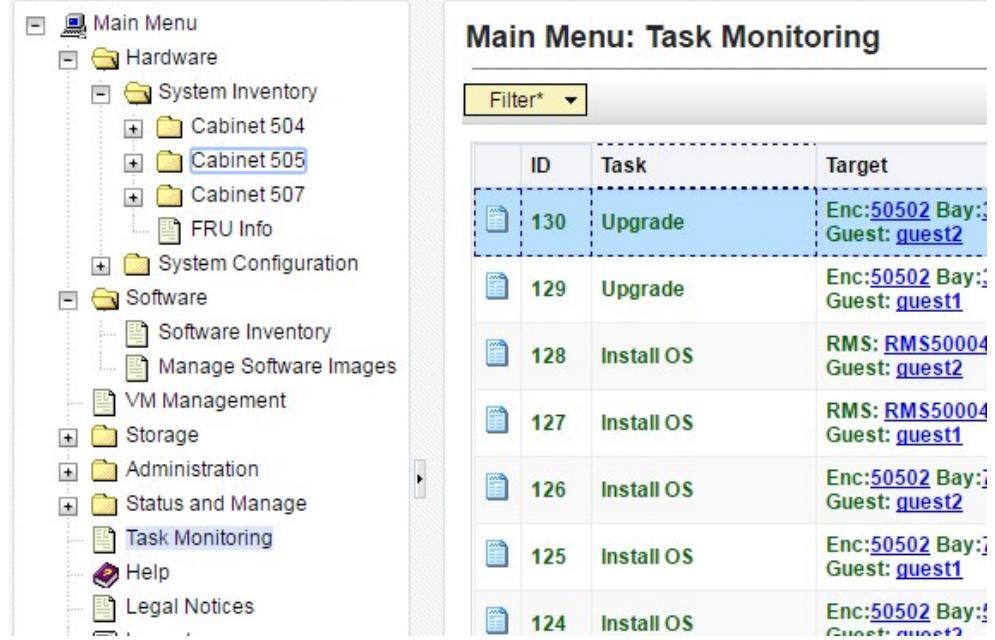
## Procedure 11. Installing the Data Processor Blade (All SOAM Sites)

Step	Procedure	Result
13.	<b>PMAC Guest VM:</b> <input type="checkbox"/> Select the "Software" tab.	<p>Main Menu: Hardware -&gt; System Inventory -&gt; Cabinet 505 -&gt; Enclosure 50502 - Bay 3F  <small>Thu Dec 08 07:35:51 2016</small></p>  <p>Tasks</p> <p>Hardware Software Network VM Info</p> <p><b>Operating System Details</b></p> <ul style="list-style-type: none"> <li>Operating System Red Hat Enterprise Linux Server</li> <li>Operating System Version 6.8</li> <li>Hostname hostname3dff7a0ca7d4</li> <li>Platform Software TPD (x86_64)</li> <li>Platform Version 7.3.0.0.0-88.28.0</li> <li>Upgrade State Not In Upgrade</li> </ul> <p><b>Application Details</b></p> <ul style="list-style-type: none"> <li>Application</li> <li>Version</li> <li>Function</li> <li>Designation</li> </ul> <p>Install OS Cold Reset</p> <p>Upgrade Accept Upgrade Reject Upgrade</p> <p>Patch Accept Patches Reject Patches</p>
14.	<b>PMAC Guest VM:</b> <input type="checkbox"/> 1) Verify the correct TPD is shown.  2) Verify "Application Details" are blank.	<p>Main Menu: Hardware -&gt; System Inventory -&gt; Cabinet 505 -&gt; Enclosure 50502 - Bay 3F  <small>Thu Dec 08 07:35:51 2016</small></p>  <p>Tasks</p> <p>Hardware Software Network VM Info</p> <p><b>Operating System Details</b></p> <ul style="list-style-type: none"> <li>Operating System Red Hat Enterprise Linux Server</li> <li>Operating System Version 6.8</li> <li>Hostname hostname3dff7a0ca7d4</li> <li>Platform Software TPD (x86_64)</li> <li>Platform Version 7.3.0.0.0-88.28.0</li> <li>Upgrade State Not In Upgrade</li> </ul> <p><b>Application Details</b></p> <ul style="list-style-type: none"> <li>Application</li> <li>Version</li> <li>Function</li> <li>Designation</li> </ul> <p>Install OS Cold Reset</p> <p>Upgrade Accept Upgrade Reject Upgrade</p> <p>Patch Accept Patches Reject Patches</p>

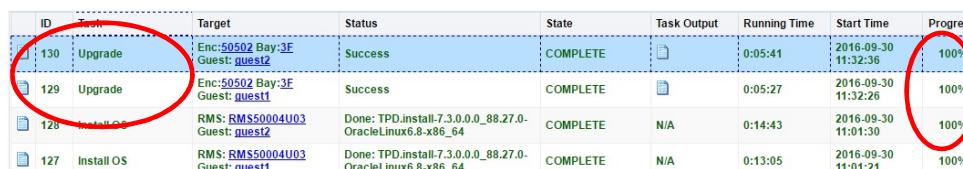
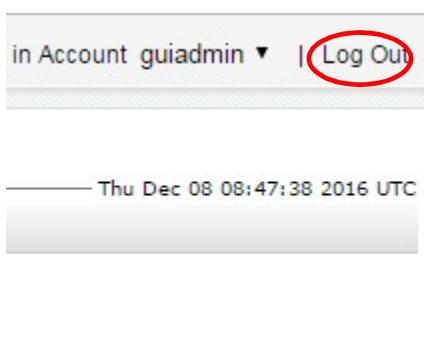
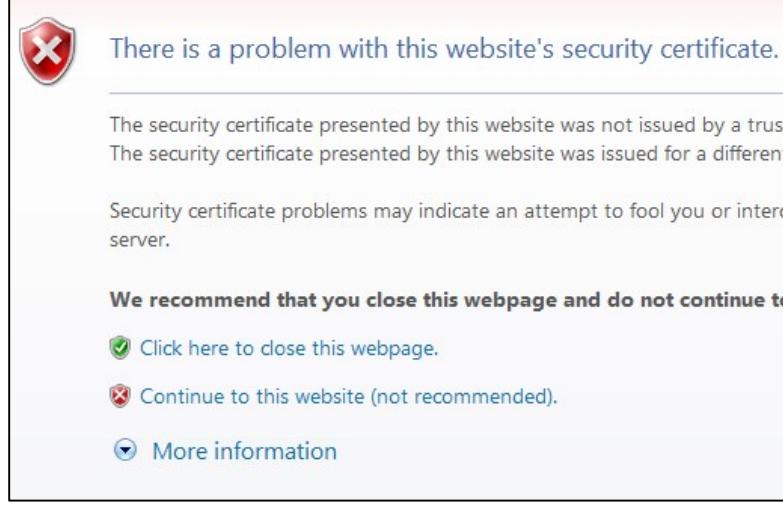
## Procedure 11. Installing the Data Processor Blade (All SOAM Sites)

Step	Procedure	Result																								
15.	<p><b>PMAC Guest VM:</b></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 -&gt; System Inventory -&gt; Cabinet 505 -&gt; Enclosure 50502 -&gt; Bay</p> 																								
16.	<p><b>PMAC Guest VM:</b></p> <p>1) Select the correct SDS version from the "Image Name" list. The line entry should now be highlighted in <b>BLUE</b>.</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 style="background-color: #0070C0; color: white;"> <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><b>Start Software Upgrade</b> <b>Back</b></p>	Image Name	Type	Architecture	Description	oracleGuest-8.0.0.0.0_80.8.0-x86_64	Upgrade	x86_64		SDS-8.0.0.0.0_80.16.0-x86_64	Upgrade	x86_64		TPD.install-7.0.3.0.0_86.46.0-OracleLinux6.7-x86_64	Bootable	x86_64		TPD.install-7.3.0.0.0_88.28.0-OracleLinux6.8-x86_64	Bootable	x86_64		TPD.install-7.3.0.0.0_88.30.0-OracleLinux6.8-x86_64	Bootable	x86_64	
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## Procedure 11. Installing the Data Processor Blade (All SOAM Sites)

Step	Procedure	Result
17.	<b>PMAC Guest VM:</b> The user should be presented with an <b>“Are you sure you want to upgrade”</b> message box ....as shown on the right. Click the <b>“OK”</b> dialogue button.	
18.	<b>PMAC Guest VM:</b> 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.	Install SDS SW on each remaining DP server blade.	<ul style="list-style-type: none"> <li>Repeat Steps 10 – 18 of this procedure for each additional <b>DP server blade</b> installed in the <b>SOAM</b> enclosure.</li> </ul>
20.	<b>PMAC Guest VM:</b> Select... <b>Main Menu</b> → <b>Task Monitoring</b> ...as shown on the right.	

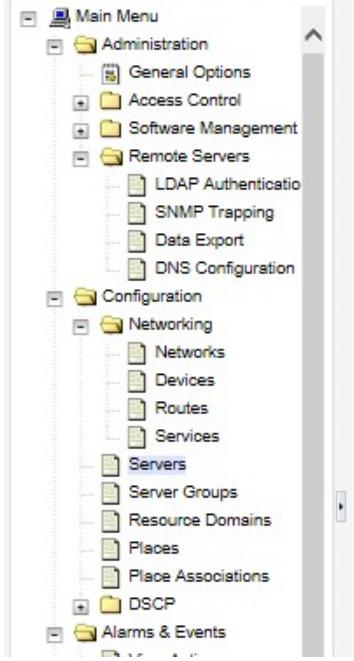
## Procedure 11. Installing the Data Processor Blade (All SOAM Sites)

Step	Procedure	Result
21.	<p><b>PMAC Guest VM:</b>  <input type="checkbox"/> Wait till Progress is 100% with a Status of Success and a State of Complete.  .... then proceed to the next step.</p>	
22.	<p><b>PMAC Guest VM::</b>  <input type="checkbox"/> Click the “Logout” link on the PMAC server GUI.</p>	
23.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Launch an approved web browser and connect to the XMI Virtual IP address (VIP) assigned to Active SDS site</p> <p><b>NOTE:</b> If presented with the “security certificate” warning screen shown to the right, choose the following option: “Continue to this website (not recommended)”.</p>	

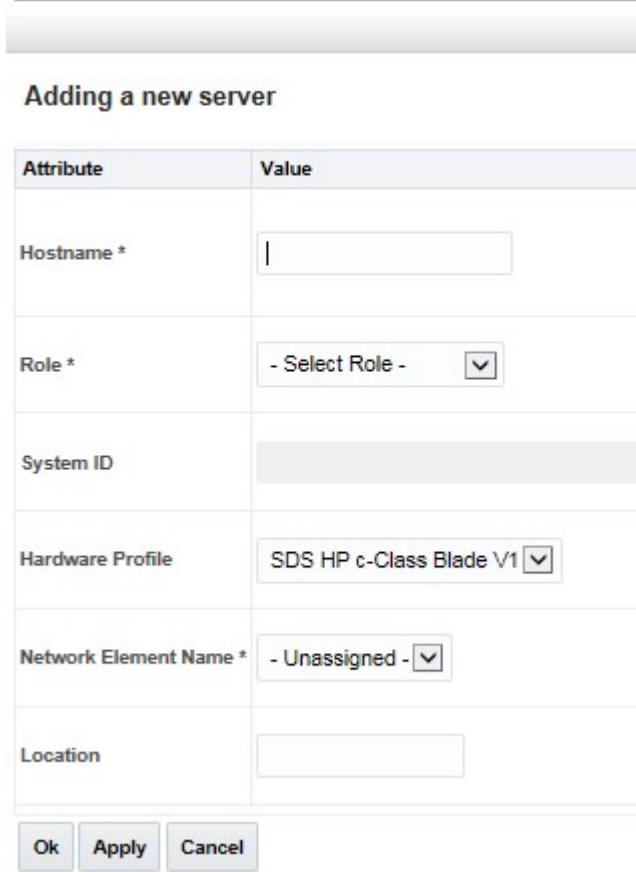
### Procedure 11. Installing the Data Processor Blade (All SOAM Sites)

Step	Procedure	Result
24.	<p><b>Primary SDS VIP:</b></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>	
25.	<p><b>Primary SDS VIP:</b></p> <p><input type="checkbox"/> The user should be presented the SDS Main Menu as shown on the right.</p>	

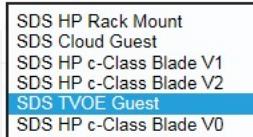
## Procedure 11. Installing the Data Processor Blade (All SOAM Sites)

Step	Procedure	Result																		
26.	<p><b>Primary SDS VIP:</b></p> <p><input type="checkbox"/> 1) Select... <b>Main Menu</b>  <b>→ Configuration</b>  <b>→ Servers</b>  ...as shown on the right</p> <p>2) Select the “<b>Insert</b>” dialogue button.</p>	 <p><b>Main Menu: Configuration -&gt; Servers</b></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&amp;P</td> <td>sds-no-s</td> </tr> <tr> <td>sds-no-b</td> <td>Network OAM&amp;P</td> <td>sds-no-t</td> </tr> <tr> <td>qs-sds-1</td> <td>Query Server</td> <td></td> </tr> <tr> <td>dr-sds-no-a</td> <td>Network OAM&amp;P</td> <td>dr-sds-n</td> </tr> <tr> <td>sds-so-a</td> <td>System OAM</td> <td>sds-so-s</td> </tr> </tbody> </table>	Hostname	Role	System	sds-no-a	Network OAM&P	sds-no-s	sds-no-b	Network OAM&P	sds-no-t	qs-sds-1	Query Server		dr-sds-no-a	Network OAM&P	dr-sds-n	sds-so-a	System OAM	sds-so-s
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## Procedure 11. Installing the Data Processor Blade (All SOAM Sites)

Step	Procedure	Result																	
27.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/>  The user is now presented with the “Adding a new server” configuration screen.</p>	<p><b>Main Menu: Configuration -&gt; Servers [Insert]</b></p>  <p><b>Adding a new server</b></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;">Ok</td> <td style="text-align: center;">Apply</td> <td style="text-align: center;">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"/>	Ok	Apply	Cancel
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28.	<p><b>Primary SDS VIP:</b>  <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><b>Primary SDS VIP:</b>  <input type="checkbox"/>  Select “MP” for the server Role from the pull-down menu.</p>	<table border="1"> <thead> <tr> <th>Role *</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;"> - Select Role -  NETWORK OAM&amp;P  SYSTEM OAM  <input type="button" value="MP"/>  QUERY SERVER </td> <td style="text-align: center;">end with an alphanumeric. [A value is required.]  Select the function of the server [A value is required.]</td> </tr> </tbody> </table>	Role *	Description	- Select Role - NETWORK OAM&P SYSTEM OAM <input type="button" value="MP"/> QUERY SERVER	end with an alphanumeric. [A value is required.]  Select the function of the server [A value is required.]													
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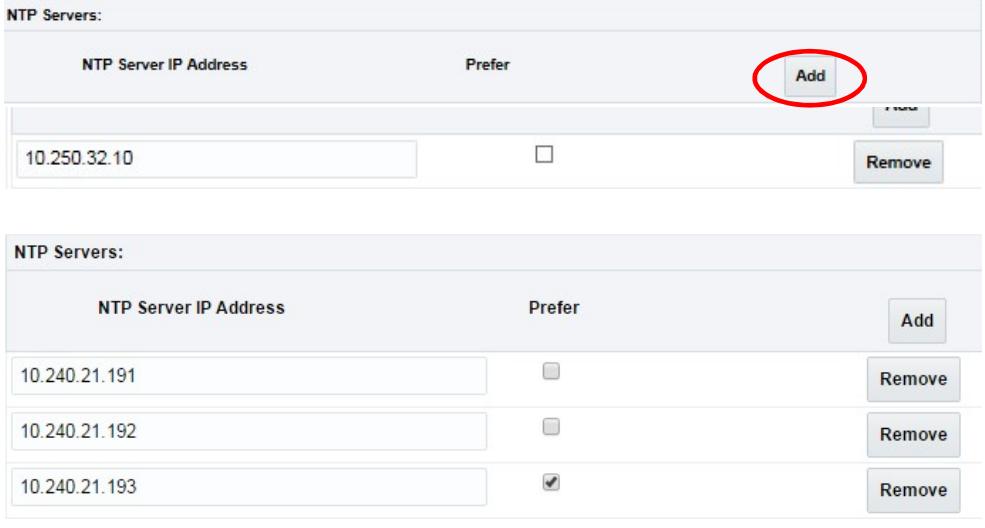
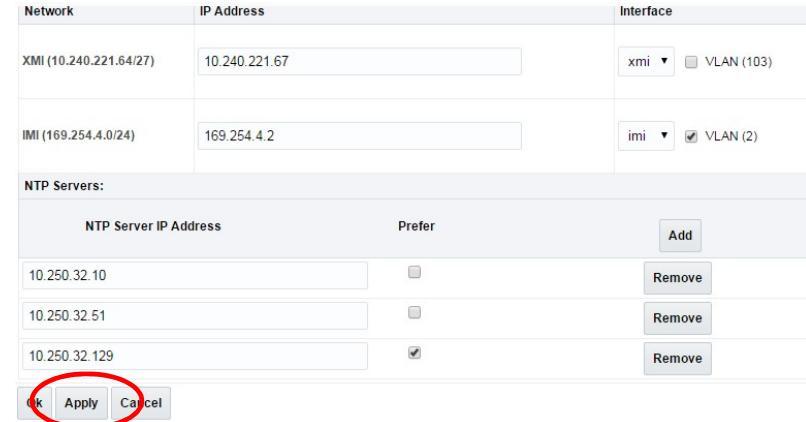
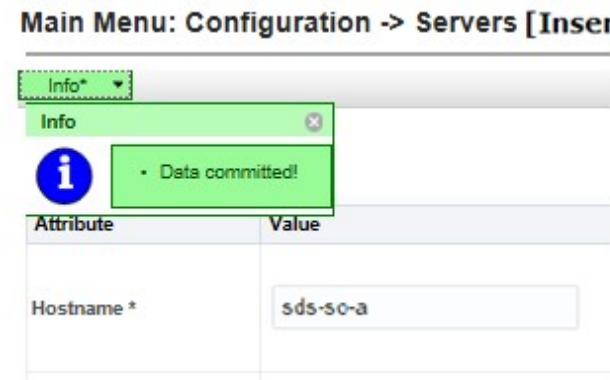
## Procedure 11. Installing the Data Processor Blade (All SOAM Sites)

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

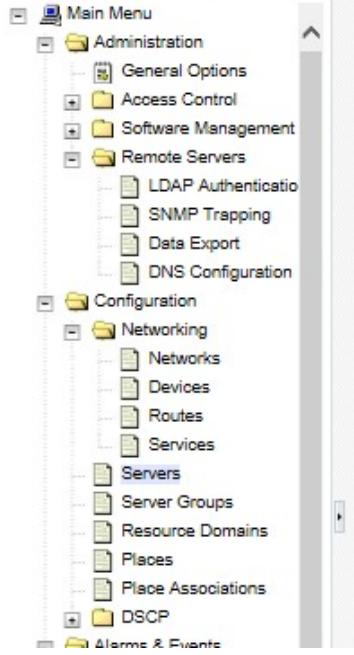
## Procedure 11. Installing the Data Processor Blade (All SOAM Sites)

Step	Procedure	Result																								
33.	<p><b>Primary SDS VIP:</b></p> <p>1) Enter the <b>IMI IP address</b> for the <b>DP Server</b>.</p> <p>2) Set the <b>IMI Interface</b> to “<b>bond0</b>” and “<b>check</b>” the <b>VLAN</b> checkbox.</p>	<p><b>NTP Servers:</b></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> <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>					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	DP Server	Network	Interface	VLAN Checkbox	DP	IMI	bond0	
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34.	<p>1) Enter the customer assigned <b>XMI IP address</b> for the <b>DP Server</b>.</p> <p><b>Layer 3</b> <i>(No VLAN tagging used for XMI)</i></p> <p>2) Set the <b>XMI Interface</b> to “<b>bond1</b>” and “<b>DO NOT check</b>” the <b>VLAN</b> checkbox.</p> <p>- OR -</p> <p><b>Layer 2</b> <i>(VLAN tagging used for XMI)</i></p> <p>2) Set the <b>XMI Interface</b> to “<b>bond0</b>” and “<b>check</b>” the <b>VLAN</b> checkbox.</p>	<table border="1"> <thead> <tr> <th>DP Server</th> <th>Network</th> <th>VLAN tagging (on XMI network)</th> <th>Interface</th> <th>VLAN Checkbox</th> </tr> </thead> <tbody> <tr> <td>DP</td> <td>XMI</td> <td>No</td> <td>bond1</td> <td></td> </tr> <tr> <td></td> <td></td> <td>Yes</td> <td>bond0</td> <td></td> </tr> </tbody> </table> <p><b>!!! CAUTION !!!</b></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 instalation procedure over from the beginning.</i></p>					DP Server	Network	VLAN tagging (on XMI network)	Interface	VLAN Checkbox	DP	XMI	No	bond1				Yes	bond0						
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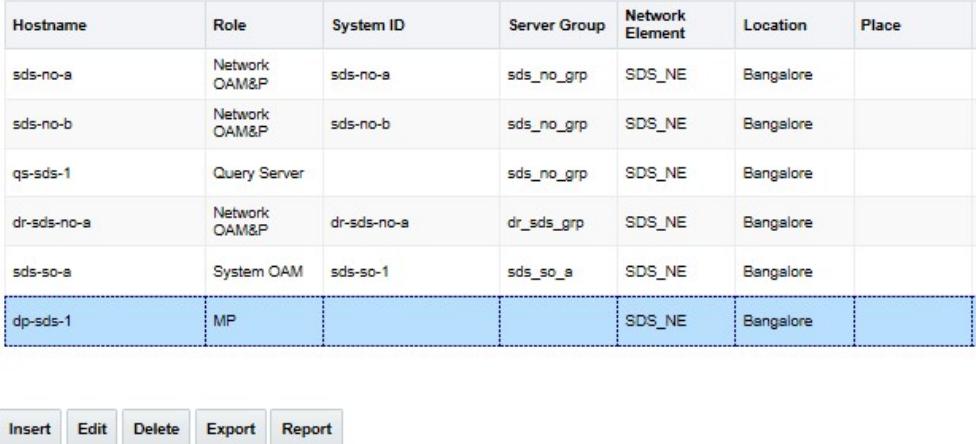
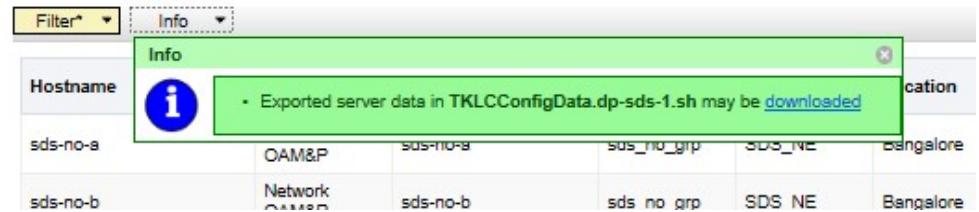
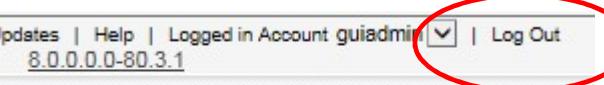
## Procedure 11. Installing the Data Processor Blade (All SOAM Sites)

Step	Procedure	Result
35.	<p><b>Primary SDS VIP:</b></p> <p>1) Click the “NTP Servers:” “Add” dialogue button.</p> <p>2) Enter the <b>NTP Server IP Address</b> for an NTP Server.</p> <p>3) Enter 3 NTP Server <b>IP address</b>, 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><b>Primary SDS VIP:</b></p> <p>1) The user should be presented with a banner information message stating “<b>Pre-Validation passed</b>”.</p> <p>2) Click the “<b>Apply</b>” dialogue button...</p>	
37.	<p><b>Primary SDS VIP:</b></p> <p>If the values provided match the network ranges assigned to the NE, the user will receive a banner information message showing that the data has been committed to the DB.</p>	<p><b>Main Menu: Configuration -&gt; Servers [Insert]</b></p> 

## Procedure 11. Installing the Data Processor Blade (All SOAM Sites)

Step	Procedure	Result																																																																																
38.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Select...</p> <p><b>Main Menu</b>  <b>→ Configuration</b>  <b>→ Servers</b></p> <p>...as shown on the right.</p>	 <p><b>Main Menu: Configuration -&gt; Servers</b></p> <table border="1"> <thead> <tr> <th>Filter*</th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td></td> <td>Hostname</td> <td>Role</td> <td>System ID</td> </tr> <tr> <td></td> <td>sds-no-a</td> <td>Network OAM&amp;P</td> <td>sds-no-a</td> </tr> <tr> <td></td> <td>sds-no-b</td> <td>Network OAM&amp;P</td> <td>sds-no-b</td> </tr> <tr> <td></td> <td>qs-sds-1</td> <td>Query Server</td> <td></td> </tr> <tr> <td></td> <td>dr-sds-no-a</td> <td>Network OAM&amp;P</td> <td>dr-sds-no-a</td> </tr> <tr> <td></td> <td>sds-so-a</td> <td>System OAM</td> <td>sds-so-a</td> </tr> <tr> <td></td> <td>dp-sds-1</td> <td>MP</td> <td></td> </tr> </tbody> </table>	Filter*					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		sds-so-a	System OAM	sds-so-a		dp-sds-1	MP																																																	
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39.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> On the <b>“Configuration → Servers”</b> screen, find the newly added DP server in the list.</p> <p><b>Note:</b> The DP server will have a “MP” role.</p>	<p><b>Main Menu: Configuration -&gt; Servers</b></p> <table border="1"> <thead> <tr> <th>Filter*</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> </tr> <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></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>sds-no-a</td> <td>Network OAM&amp;P</td> <td>sds-no-a</td> <td>sds_no_grp</td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>sds-no-b</td> <td>Network OAM&amp;P</td> <td>sds-no-b</td> <td>sds_no_grp</td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> <td></td> <td></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> <td></td> <td></td> <td></td> </tr> <tr> <td>dr-sds-no-a</td> <td>Network OAM&amp;P</td> <td>dr-sds-no-a</td> <td>dr_sds_grp</td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> <td></td> <td></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> <td></td> <td></td> <td></td> </tr> <tr> <td>dp-sds-1</td> <td>MP</td> <td></td> <td></td> <td></td> <td>SDS_NE</td> <td>Bangalore</td> <td></td> <td></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_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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## Procedure 11. Installing the Data Processor Blade (All SOAM Sites)

Step	Procedure	Result
40.	<p><b>Primary SDS VIP:</b></p> <p>1) Using the mouse, select the newly added <b>DP server</b> entry. The line entry containing the server with a “MP” role should now be highlighted in <b>BLUE</b>.</p> <p>2) Click the “<b>Export</b>” dialogue button from the bottom left corner of the screen.</p>	
41.	<p><b>Primary SDS VIP:</b></p> <p>The user will receive a banner information message showing a download link for the “MP” configuration data.</p>	<p><b>Main Menu: Configuration -&gt; Servers</b></p> 
42.	Configure/Export the each additional DP server to be installed for this SOAM site.	<ul style="list-style-type: none"> <li>Repeat Steps 26 – 41 of this procedure for each additional <b>DP server</b> installed in the SOAM cabinet.</li> </ul>
43.	<p><b>Primary SDS VIP:</b></p> <p>Click the “<b>Logout</b>” link on the SDS server GUI.</p>	
44.	<p><b>Primary SDS VIP:</b></p> <p>1) <b>SSH</b> to the <b>Primary SDS NOAM VIP</b> and access the command prompt.</p> <p>2) Log into the server as the “<b>admusr</b>” user.</p>	<p>login: <b>admusr</b>  Using keyboard-interactive authentication.  Password: &lt;<b>admusr_password</b>&gt;</p>
45.	<p><b>Primary SDS VIP:</b></p> <p>Change directory to <b>filemgmt</b></p>	<pre>\$ cd /var/TKLC/db/filemgmt</pre>

## Procedure 11. Installing the Data Processor Blade (All SOAM Sites)

Step	Procedure	Result
46.	<b>Primary SDS VIP:</b> <input type="checkbox"/> 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 style="text-align: center;"><b>*** TRUNCATED OUTPUT ***</b></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.	<b>Primary SDS VIP:</b> <input type="checkbox"/> Use <b>scp</b> to copy the file(s) to the PMAC server.	<pre>\$sudo scp -p &lt;configuration_file-1&gt; &lt;configuration_file-2&gt; admusr@&lt;PMAC_Mgmt_IP&gt;:/tmp/</pre> <p>Password: &lt;admusr_password&gt;</p> <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.	<b>Primary SDS VIP:</b> Logout of the Primary SDS CLI.	<pre>\$ exit</pre>
49.	<b>PMAC Server CLI:</b> <input type="checkbox"/> Use <b>SSH</b> to login to the <b>PMAC Guest VM</b> server as the <b>admusr</b> .	<pre>login: admusr Password: &lt;admusr_password&gt;</pre>
50.	<b>PMAC Guest VM:</b> <b>Key exchange with DP control IP</b>	<pre>\$ keyexchange admusr@&lt;DP_Control_IP&gt;</pre> <p>Example:</p> <pre>[admusr@nassau-enc-pmac-1 ~]\$ keyexchange admusr@192.168.1.22</pre> <p>The server does not know of 192.168.1.22.</p> <p>Will just exchange host keys for the name given!</p> <p>Password of admusr:</p> <p>Could not get authorized keys file from remote (192.168.1.22).</p> <p>Maybe it does not exist. Continuing...</p> <p>The server does not know of 192.168.1.22.</p> <p>Will just exchange host keys for the name given!</p> <p>ssh is working correctly.</p> <pre>[admusr@nassau-enc-pmac-1 ~]\$</pre>

## Procedure 11. Installing the Data Processor Blade (All SOAM Sites)

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

## Procedure 11. Installing the Data Processor Blade (All SOAM Sites)

Step	Procedure	Result
56.	<b>DP Server:</b> If the desired Time Zone was not presented in the previous step... <b>Configure the Time Zone.</b> Otherwise, skip to the next step.	<b>Example:</b> <code>\$ sudo set_ini_tz.pl &lt;time_zone&gt;</code> <b>NOTE:</b> 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 <b>Appendix G</b> for a list of valid time zones. <code>\$ sudo set_ini_tz.pl "Etc/UTC"</code>
57.	<b>DP Server:</b> <input type="checkbox"/> Initiate a reboot of the DP.	<code>\$ sudo init 6</code>
58.	<b>DP Server:</b> <input type="checkbox"/> Output similar to that shown on the right may be observed as the server initiates a reboot.	<code>\$ Connection to 192.168.1.226 closed by remote host.</code> <code>Connection to 192.168.1.226 closed.</code>
59.	<b>PMAC Guest VM:</b> <input type="checkbox"/> After the DP server has completed reboot...  Re-connect to the DP server console from the PMAC Server Console	<code>\$ sudo ssh &lt;DP_Control_IP&gt;</code> Password: <code>&lt;admsusr_password&gt;</code>
60.	<b>DP Server:</b> 1) Verify that the <b>XMI IP address</b> input in <b>Step 33</b> has been applied to " <b>bond1</b> ".  2) Verify that the <b>IMI IP address</b> input in <b>Step 33</b> has been applied to " <b>bond0.4</b> ".  <b>NOTE:</b> Exact bond configuration may vary for custom network implementations.	<code>\$ ifconfig  grep in</code> 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

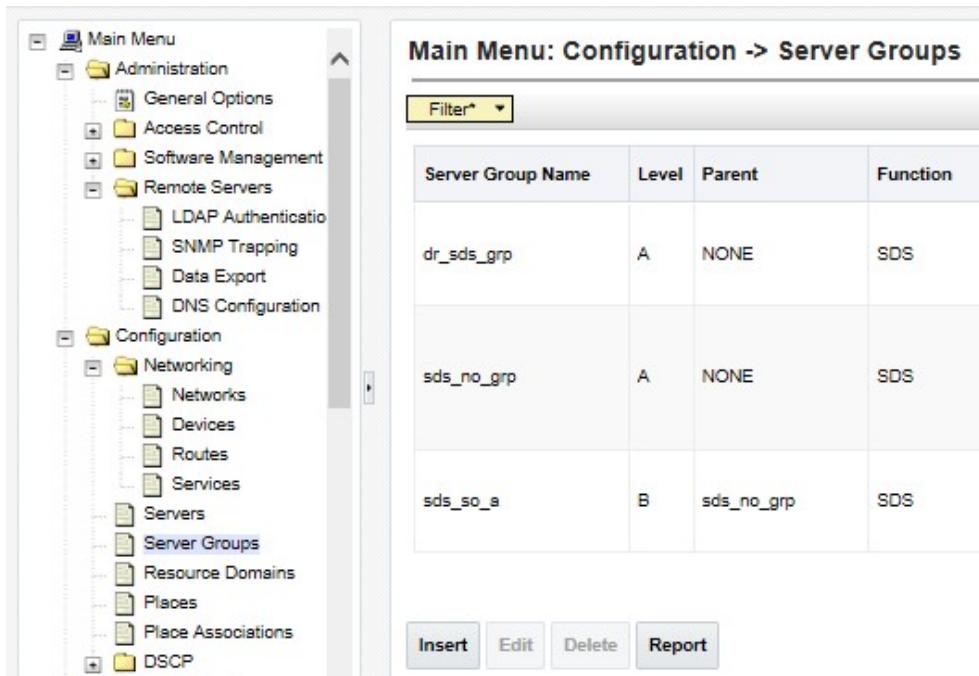
## Procedure 11. Installing the Data Processor Blade (All SOAM Sites)

Step	Procedure	Result
61.	<b>DP Server:</b> <input type="checkbox"/> From the <b>DP Server</b> , “ping” the <b>IMI IP address</b> of the <b>SOAM-A Guest</b> .	<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>
62.	<b>DP Server:</b> <input type="checkbox"/> From the <b>DP Server</b> , “ping” the local <b>XMI Gateway address</b> 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>
63.	<b>DP Server:</b> <input type="checkbox"/> Use the “ <b>ntpq -np</b> ” 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>
64.	<b>DP Server:</b> <input type="checkbox"/> Execute a “ <b>syscheck</b> ” 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>

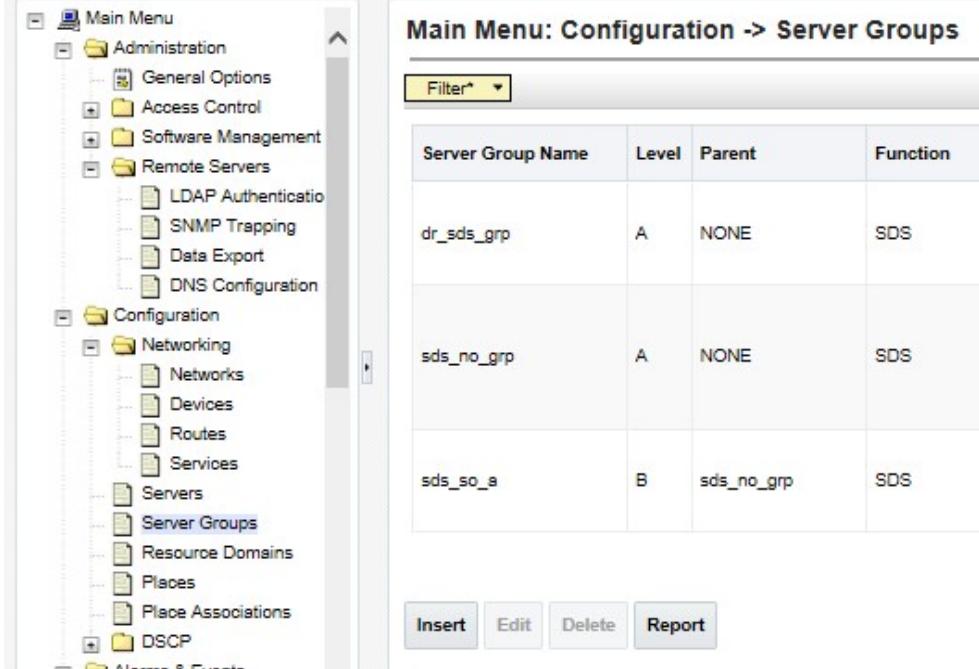
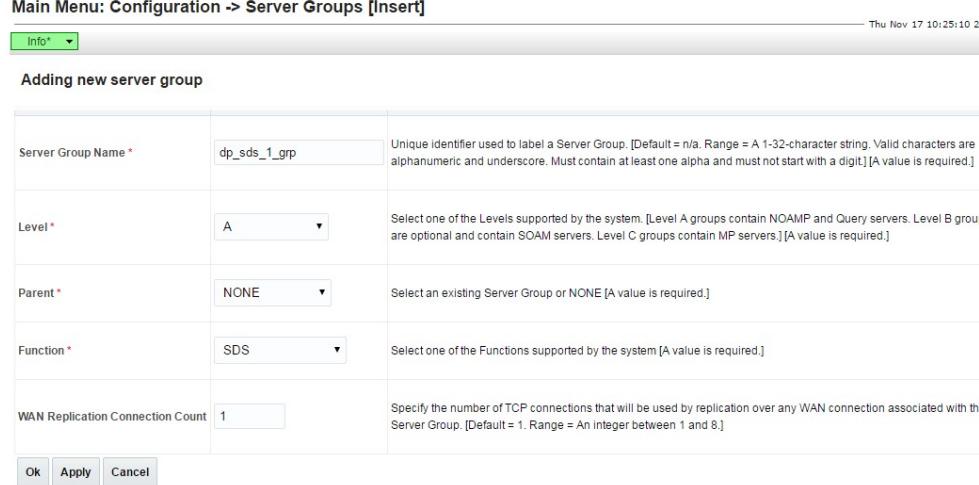
## Procedure 11. Installing the Data Processor Blade (All SOAM Sites)

Step	Procedure	Result
65.	<b>DP Server:</b> Accept upgrade to the Application Software.  Use "q" key to exit the screen session.	<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><b>NOTE:</b>  <b>EXECUTE Appendix I: Disable Hyperthreading (DP Only) on server before exiting.</b></p>
66.	<b>DP Server:</b> Exit from the command line to return the server console to the login prompt.	<pre>\$ exit Connection to 192.168.1.199 closed.</pre>

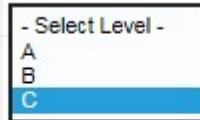
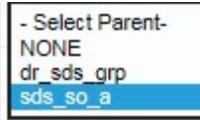
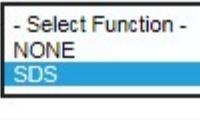
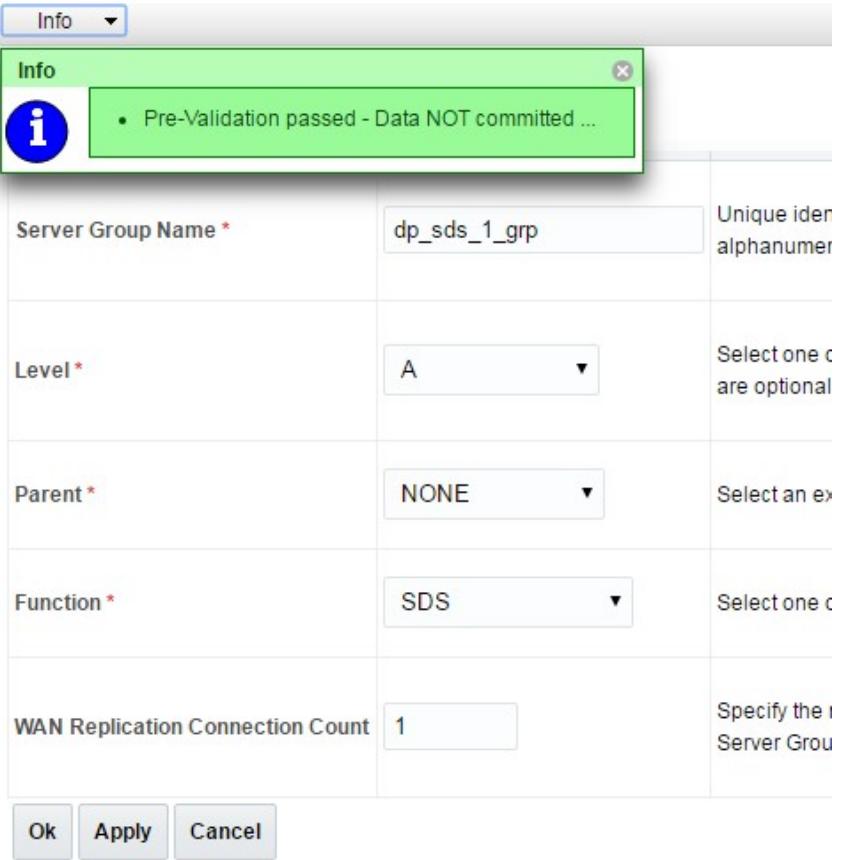
## Procedure 11. Installing the Data Processor Blade (All SOAM Sites)

Step	Procedure	Result																
67. <input type="checkbox"/>	Apply the configuration file for each additional DP server installed at the SOAM site.	<ul style="list-style-type: none"> <li>Repeat <b>Steps 51 – 66</b> of this procedure for each subtending DP server installed in the same SOAM enclosure.</li> </ul>																
68. <input type="checkbox"/>	<b>PMAC Guest VM:</b> Exit from the PMAC server.	\$ <b>exit</b>																
69. <input type="checkbox"/>	<b>Primary SDS VIP:</b> Select...  <b>Main Menu</b> → Configuration → Server Groups  ...as shown on the right.	 <p>The image shows the SDS 8.0 Configuration interface. On the left is the Main Menu tree, which includes Administration, Configuration, and Networking. Under Configuration, the Server Groups option is selected. On the right is the 'Main Menu: Configuration -&gt; Server Groups' table. The table has columns for Server Group Name, Level, Parent, and Function. It contains three rows:</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 table 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
Server Group Name	Level	Parent	Function															
dr_sds_grp	A	NONE	SDS															
sds_no_grp	A	NONE	SDS															
sds_so_a	B	sds_no_grp	SDS															

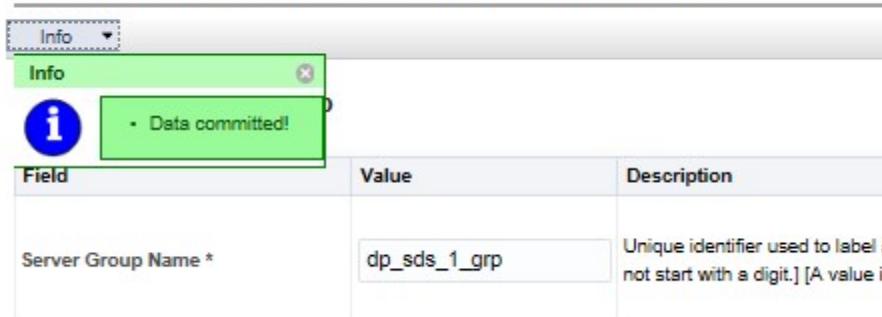
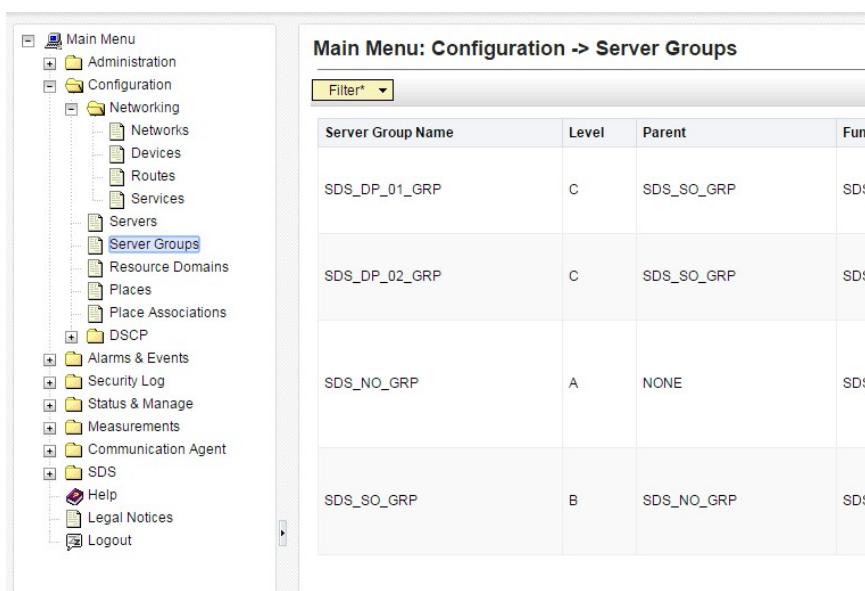
## Procedure 11. Installing the Data Processor Blade (All SOAM Sites)

Step	Procedure	Result						
70.	<p><b>Primary SDS VIP:</b></p> <p>1) The user will be presented with the <b>“Server Groups”</b> configuration screen as shown on the right.</p> <p>2) Select the <b>“Insert”</b> dialogue button from the bottom left corner of the screen.</p>							
71.	<p><b>Primary SDS VIP:</b></p> <p>The user will be presented with the <b>“Server Groups [Insert]”</b> screen as shown on the right.</p> <p><b>NOTE:</b> Leave the <b>“WAN Replication Connection Count”</b> blank (it will default to 1).</p>							
72.	<p><b>Primary SDS VIP:</b></p> <p>Input the <b>Server Group Name</b>.</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><b>NOTE:</b> 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.]
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.]						

## Procedure 11. Installing the Data Processor Blade (All SOAM Sites)

Step	Procedure	Result	
73.	<b>Primary SDS VIP:</b> <input type="checkbox"/> Select “C” on the “Level” pull-down menu.		<small>NOT start with a digit. [A value is req]</small> Select one of the Levels supported by servers. [A value is required.]
74.	<b>Primary SDS VIP:</b> <input type="checkbox"/> Select <b>System OAM group</b> on the “Parent” pull-down menu.		Select an existing Server Group or NONE [A value is required.]
75.	<b>Primary SDS VIP:</b> <input type="checkbox"/> Select “SDS” on the “Function” pull-down menu.		Select one of the Functions supported by servers. [A value is required.]
76.	<b>Primary SDS VIP:</b> <input type="checkbox"/> 1) The user should be presented with a banner information message stating “ <b>Pre-Validation passed</b> ”.  2) Select the “ <b>Apply</b> ” dialogue button.	<p><b>Main Menu: Configuration -&gt; Server Groups [Insert]</b></p> 	

## Procedure 11. Installing the Data Processor Blade (All SOAM Sites)

Step	Procedure	Result																				
77.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> The user should be presented with a banner information message stating “Data committed”.</p>	<p><b>Main Menu: Configuration -&gt; Server Groups [Insert]</b></p>  <p>Server Group Name * <input type="text" value="dp_sds_1_grp"/> Unique identifier used to label a [A value is not start with a digit.]</p>																				
78.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> 1) Select...  <u>Main Menu</u>  <b>→ Configuration</b>  <b>→ Server Groups</b>  ...as shown on the right</p> <p>2) The user will be presented with the “<b>Configuration → Server Groups</b>” screen as shown on the right.</p>	 <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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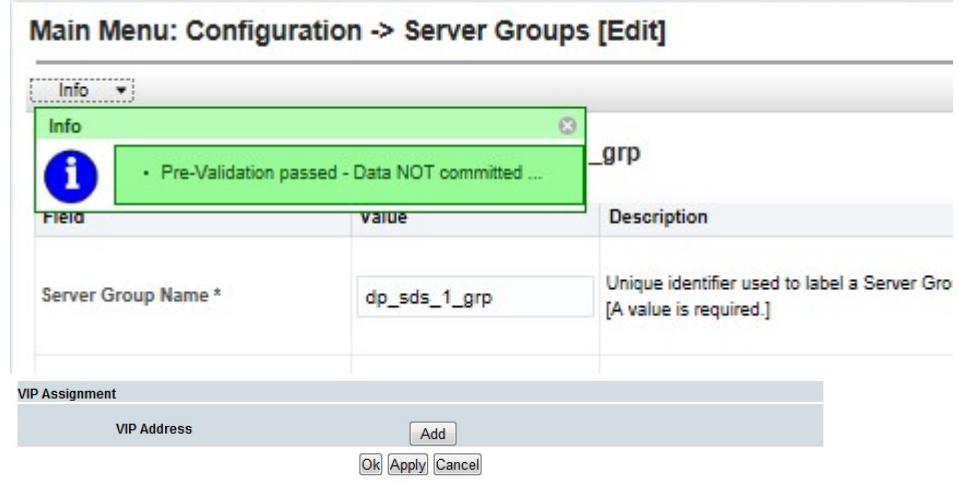
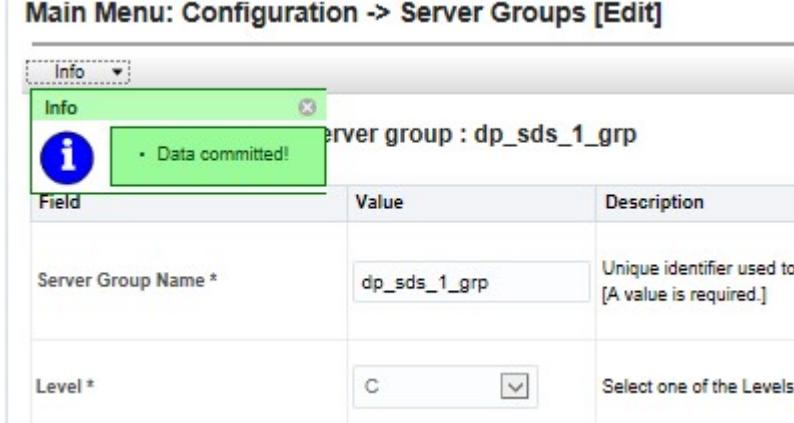
## Procedure 11. Installing the Data Processor Blade (All SOAM Sites)

Step	Procedure	Result																														
79.	<p><b>Primary SDS VIP:</b></p> <p><input type="checkbox"/> 1) Using the mouse, select the MP Server Group associated with the <b>DP</b> being installed.</p> <p><b>2) Select the “Edit” dialogue button from the bottom left corner of the screen.</b></p>	<p><b>Main Menu: Configuration -&gt; Server Groups</b></p> <p><b>Filter* ▾</b></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>           Network Element            Server            dr-sds-no-a         </td> </tr> <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>           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><b>Insert</b> <b>Edit</b> <b>Delete</b> <b>Report</b></p>	Server Group Name	Level	Parent	Function	Connection Count	Servers	dp_sds_1_grp	C	sds_so_a	SDS	1	Network Element Server dr-sds-no-a	dr_sds_grp	A	NONE	SDS	1		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
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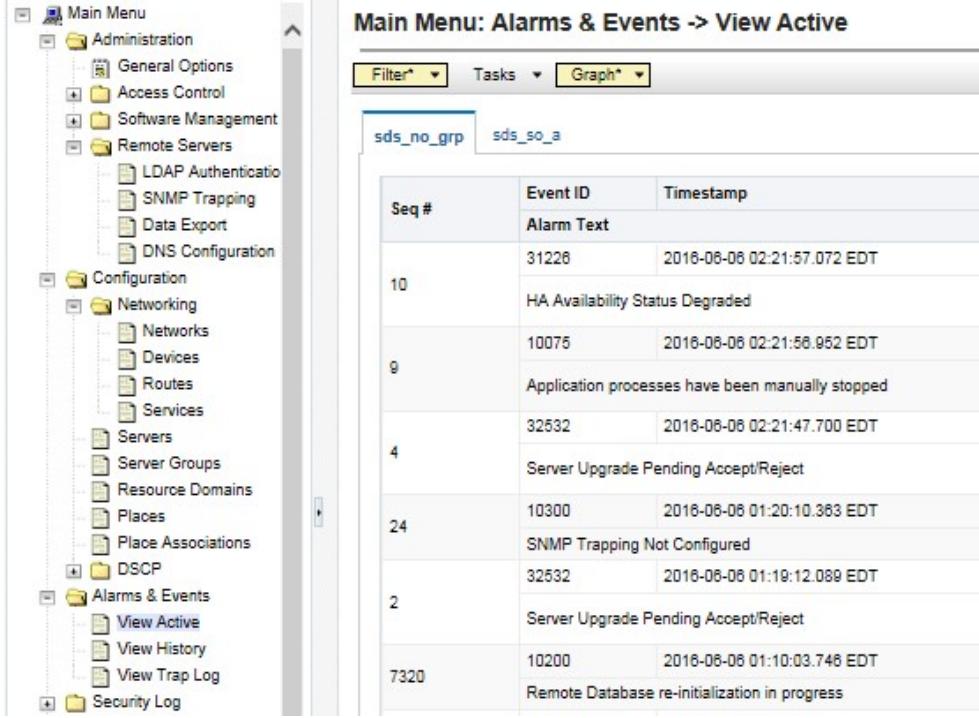
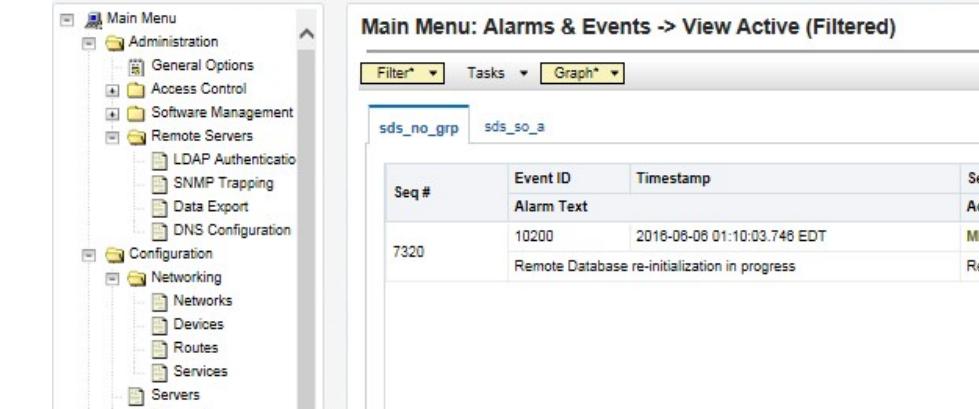
## Procedure 11. Installing the Data Processor Blade (All SOAM Sites)

Step	Procedure	Result																																				
80.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/>  The user will be presented with the “Configuration → Server Groups [Edit]” screen as shown on the right</p>	<p><b>Main Menu: Configuration -&gt; Server Groups [Edit]</b></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>SDS_NE</td><td><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="3"><b>VIP Assignment</b></td></tr> <tr> <td colspan="2">VIP Address</td><td><input type="button" value="Add"/></td></tr> <tr> <td colspan="3"><input type="button" value="Ok"/> <input type="button" value="Apply"/> <input type="button" value="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	<b>VIP Assignment</b>			VIP Address		<input type="button" value="Add"/>	<input type="button" value="Ok"/> <input type="button" value="Apply"/> <input type="button" value="Cancel"/>		
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81.	<p><b>Primary SDS VIP:</b>  <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 11. Installing the Data Processor Blade (All SOAM Sites)

Step	Procedure	Result
82.	<p><b>Primary SDS VIP:</b></p> <p>1) The user should be presented with a banner information message stating “<b>Pre-Validation passed</b>”.</p> <p>2) Select the “<b>Apply</b>” dialogue button.</p>	
83.	<p><b>Primary SDS VIP:</b></p> <p>The user should be presented with a banner information message stating “<b>Data committed</b>”.</p>	
84.	<p>Place each additional DP Server into its respective DP Server Group.</p>	<ul style="list-style-type: none"> <li>Repeat <b>Steps 69 – 83</b> of this procedure for each subtending DP server installed in the same SOAM enclosure, <i>using a unique group for each DP</i>.</li> </ul>

## Procedure 11. Installing the Data Processor Blade (All SOAM Sites)

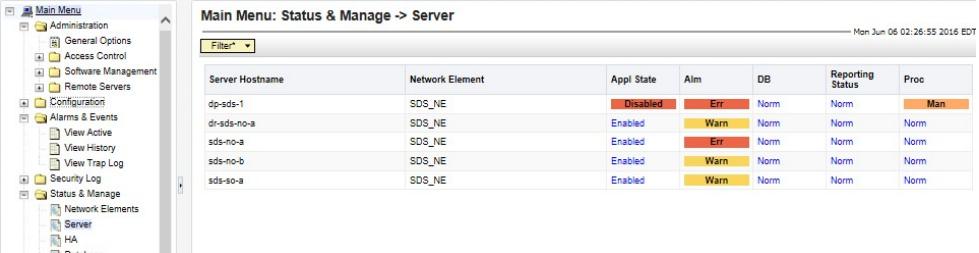
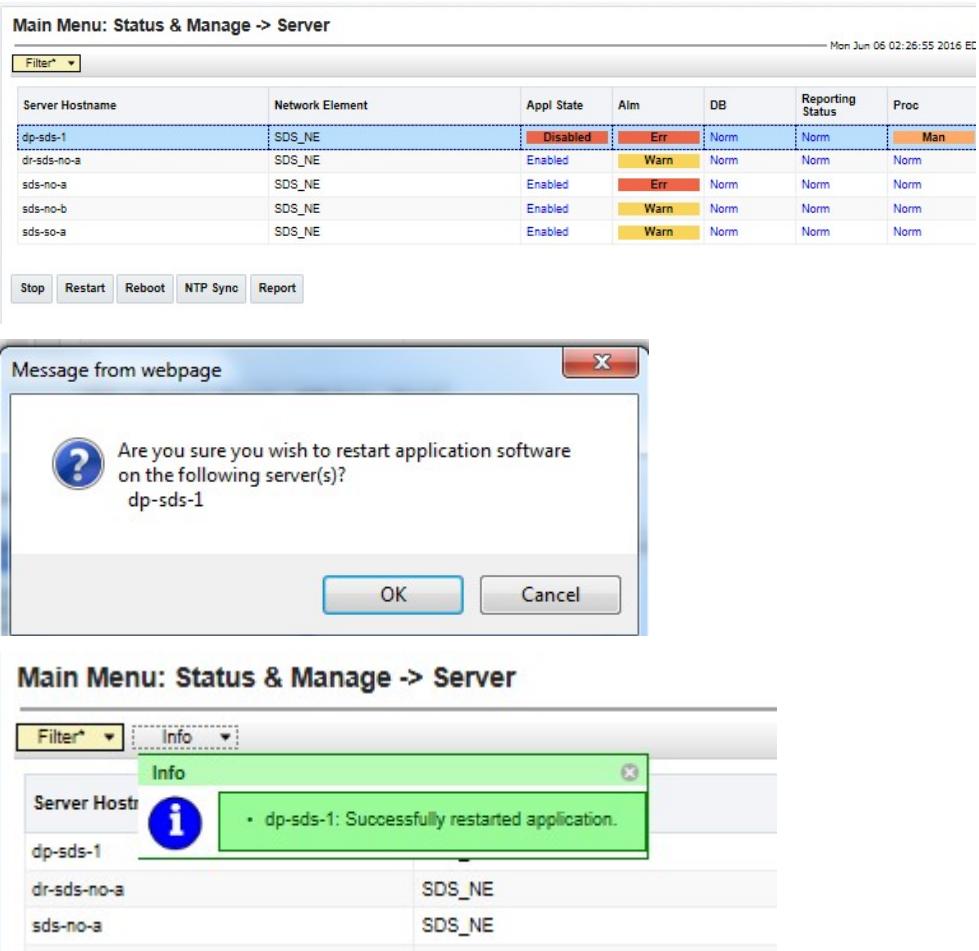
Step	Procedure	Result																												
85.	<b>Primary SDS VIP:</b> Select... <u>Main Menu</u> → Alarms & Events → View Active ...as shown on the right.	 <p><b>Main Menu: Alarms &amp; Events -&gt; View Active</b></p> <p>Filter* Tasks Graph* ▾</p> <p>sds_no_grp sds_so_a</p> <table border="1"> <thead> <tr> <th>Seq #</th> <th>Event ID</th> <th>Timestamp</th> <th>Alarm Text</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>31226</td> <td>2016-06-06 02:21:57.072 EDT</td> <td>HA Availability Status Degraded</td> </tr> <tr> <td>9</td> <td>10075</td> <td>2016-06-06 02:21:56.952 EDT</td> <td>Application processes have been manually stopped</td> </tr> <tr> <td>4</td> <td>32532</td> <td>2016-06-06 02:21:47.700 EDT</td> <td>Server Upgrade Pending Accept/Reject</td> </tr> <tr> <td>24</td> <td>10300</td> <td>2016-06-06 01:20:10.363 EDT</td> <td>SNMP Trapping Not Configured</td> </tr> <tr> <td>2</td> <td>32532</td> <td>2016-06-06 01:19:12.089 EDT</td> <td>Server Upgrade Pending Accept/Reject</td> </tr> <tr> <td>7320</td> <td>10200</td> <td>2016-06-06 01:10:03.746 EDT</td> <td>Remote Database re-initialization in progress</td> </tr> </tbody> </table>	Seq #	Event ID	Timestamp	Alarm Text	10	31226	2016-06-06 02:21:57.072 EDT	HA Availability Status Degraded	9	10075	2016-06-06 02:21:56.952 EDT	Application processes have been manually stopped	4	32532	2016-06-06 02:21:47.700 EDT	Server Upgrade Pending Accept/Reject	24	10300	2016-06-06 01:20:10.363 EDT	SNMP Trapping Not Configured	2	32532	2016-06-06 01:19:12.089 EDT	Server Upgrade Pending Accept/Reject	7320	10200	2016-06-06 01:10:03.746 EDT	Remote Database re-initialization in progress
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86.	<b>Primary SDS VIP:</b> Verify that <b>Event ID 10200 (Remote Database re-initialization in progress)</b> alarms are present with the <b>DP Server hostnames</b> in the “Instance” field...	 <p><b>Main Menu: Alarms &amp; Events -&gt; View Active (Filtered)</b></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> </tbody> </table>	Seq #	Event ID	Timestamp	Severity	7320	10200	2016-06-06 01:10:03.746 EDT	MINOR																				
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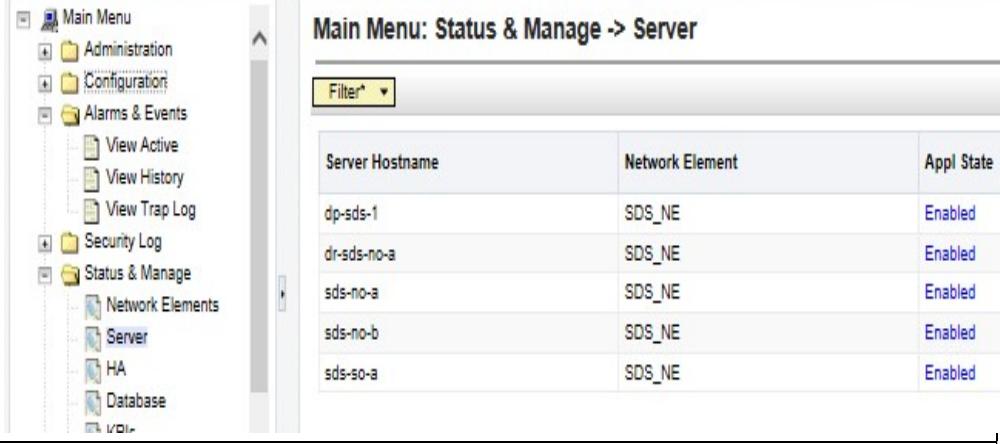
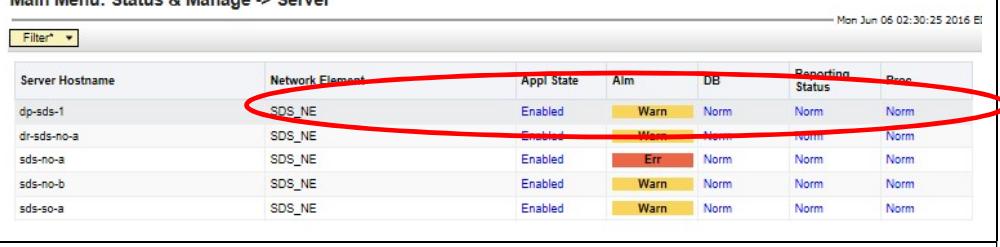
**MONITOR THE EVENT ID 10200 (Remote Database re-initialization in progress) ALARMS.**

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

## Procedure 11. Installing the Data Processor Blade (All SOAM Sites)

Step	Procedure	Result
87.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Select...  <u>Main Menu</u>  <b>→ Status &amp; Manage</b>  <b>→ Server</b>  ...as shown on the right.</p>	
88.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Verify that the “DB &amp; Reporting” status columns all show “Norm” for the DP at this point. The “Proc” column should show “Man”.</p>	
89.	<p><b>Primary SDS VIP:</b></p> <ol style="list-style-type: none"> <li>1) Using the mouse, select the “DP” hostname. The line entry should now be highlighted in <b>GREEN</b>.</li> <li>2) Select the “Restart” dialogue button from the bottom left corner of the screen.</li> <li>3) Click the “OK” button on the confirmation dialogue box.</li> <li>4) The user should be presented with a confirmation message (in the banner area) for the “DP” stating: “Successfully restarted application”.</li> </ol> <p><b>NOTE:</b> The user may need to use the vertical scroll-bar in order to make the “Restart” dialogue button visible.</p>	

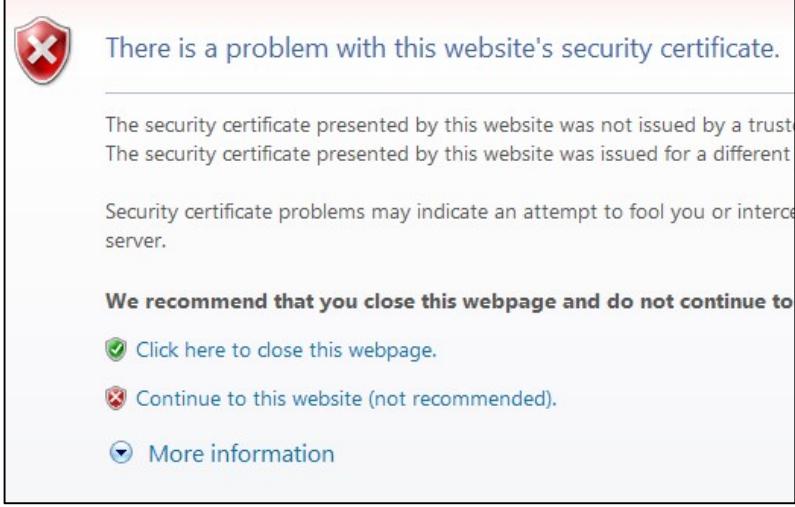
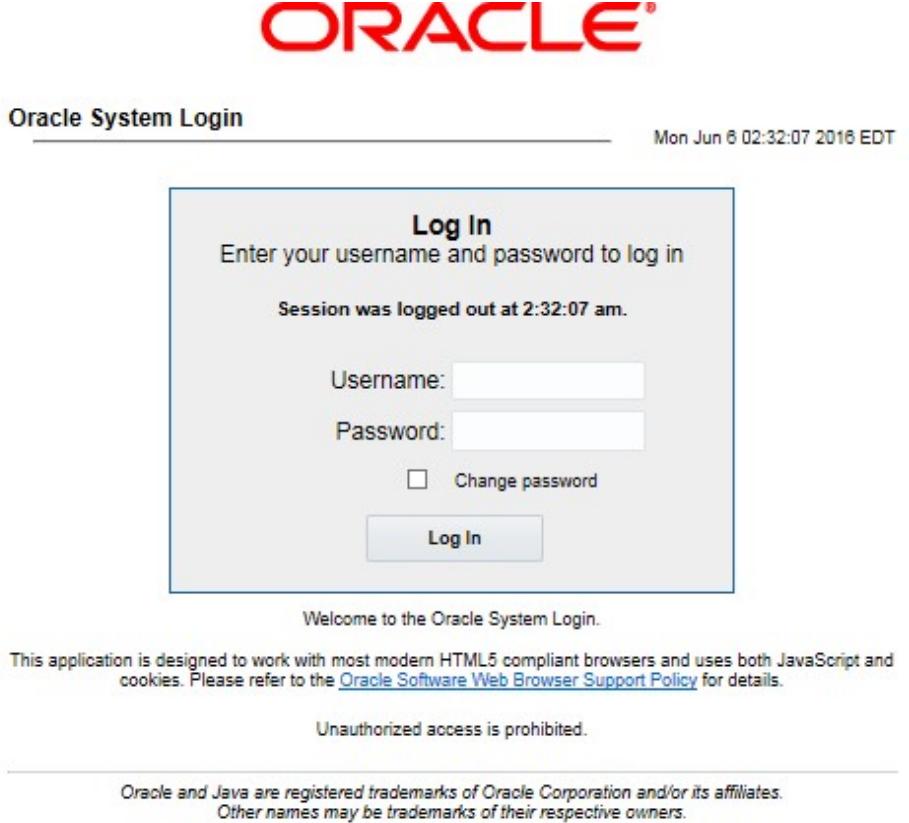
## Procedure 11. Installing the Data Processor Blade (All SOAM Sites)

Step	Procedure	Result																																										
90.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Select...</p> <p><b>Main Menu</b>  <b>→ Status &amp; Manage</b>  <b>→ Server</b>  ...as shown on the right.</p>	 <p><b>Main Menu: Status &amp; Manage -&gt; Server</b></p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> </tr> </thead> <tbody> <tr> <td>dp-sds-1</td> <td>SDS_NE</td> <td>Enabled</td> </tr> <tr> <td>dr-sds-no-a</td> <td>SDS_NE</td> <td>Enabled</td> </tr> <tr> <td>sds-no-a</td> <td>SDS_NE</td> <td>Enabled</td> </tr> <tr> <td>sds-no-b</td> <td>SDS_NE</td> <td>Enabled</td> </tr> <tr> <td>sds-so-a</td> <td>SDS_NE</td> <td>Enabled</td> </tr> </tbody> </table>	Server Hostname	Network Element	Appl State	dp-sds-1	SDS_NE	Enabled	dr-sds-no-a	SDS_NE	Enabled	sds-no-a	SDS_NE	Enabled	sds-no-b	SDS_NE	Enabled	sds-so-a	SDS_NE	Enabled																								
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sds-no-b	SDS_NE	Enabled																																										
sds-so-a	SDS_NE	Enabled																																										
91.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Verify that the “Appl State” now shows “Enabled” and that the “Alm, DB, Reporting Status &amp; Proc” status columns all show “Norm” for the “DP”.</p>	 <p><b>Main Menu: Status &amp; Manage -&gt; Server</b></p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>dp-sds-1</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>dr-sds-no-a</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-no-a</td> <td>SDS_NE</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-no-b</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds-so-a</td> <td>SDS_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table>	Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc	dp-sds-1	SDS_NE	Enabled	Warn	Norm	Norm	Norm	dr-sds-no-a	SDS_NE	Enabled	Warn	Norm	Norm	Norm	sds-no-a	SDS_NE	Enabled	Err	Norm	Norm	Norm	sds-no-b	SDS_NE	Enabled	Warn	Norm	Norm	Norm	sds-so-a	SDS_NE	Enabled	Warn	Norm	Norm	Norm
Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc																																						
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																																						
92.	<input type="checkbox"/> Repeat this procedure for each additional DP Server.	<ul style="list-style-type: none"> <li>Repeat Steps 87 – 91 of this procedure for each additional DP server installed in the SOAM cabinet.</li> </ul>																																										
<b>THIS PROCEDURE HAS BEEN COMPLETED</b>																																												

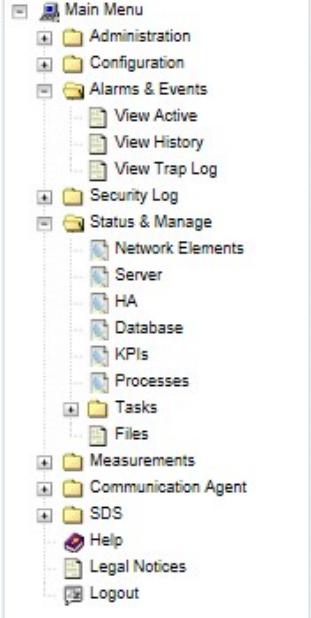
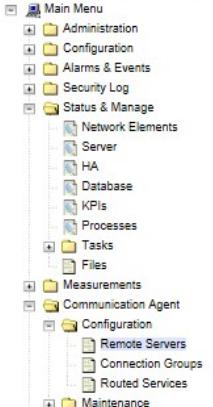
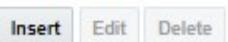
## 5.10 Configuring ComAgent

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 12. Configuring ComAgent (All SOAM Sites)

Step	Procedure	Result
1.	<p><b>Primary SDS VIP:</b> Launch an approved web browser and connect to the XMI Virtual IP Address (VIP) of the SDS</p> <p><b>NOTE:</b> If presented with the “security certificate” warning screen shown to the right, choose the following option: “<b>Continue to this website (not recommended)</b>”.</p>	
2.	<p><b>Primary SDS VIP:</b> 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 12. Configuring ComAgent (All SOAM Sites)

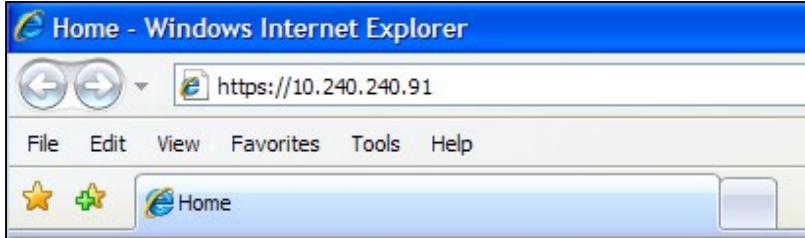
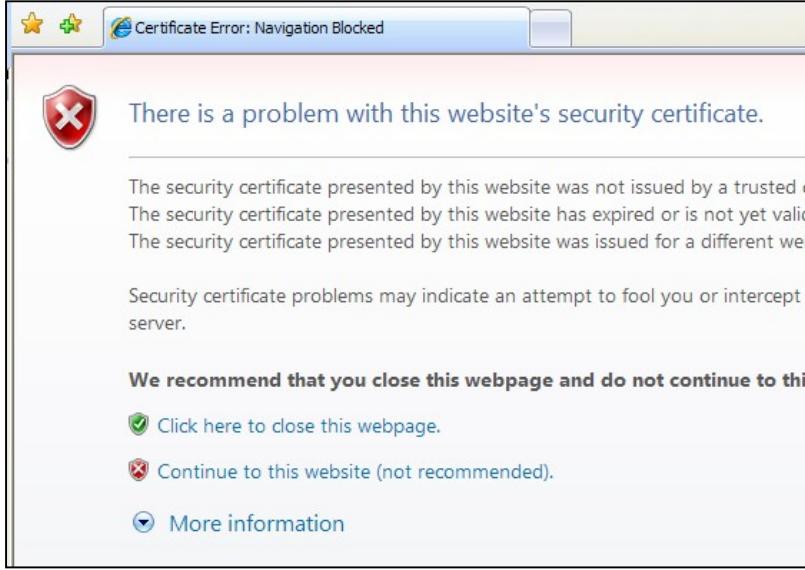
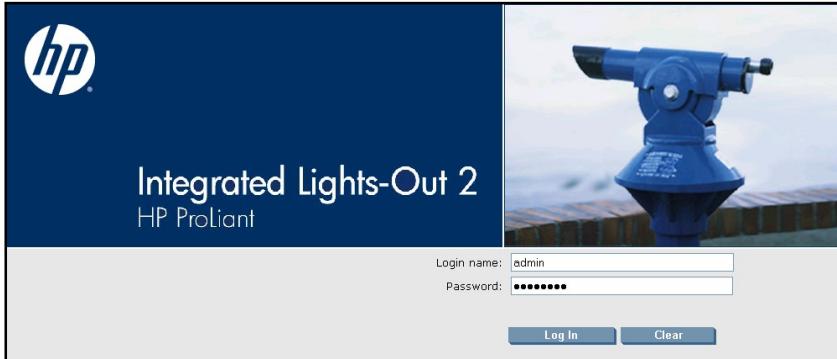
<p>3.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b> The user should be presented the SDS Main Menu as shown on the right.</p>		<p><b>Main Menu: [Main]</b></p> 						
<p>4.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b> Select...  <b>Main Menu</b> →Communication Agent →Configuration →Remote Servers  ...as shown on the right.</p>		<p><b>Main Menu: Communication Agent -&gt; Configuration -&gt; Remote Servers</b></p> 						
<p>5.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b> Select the “<b>Insert</b>” dialogue button</p>								
<p>6.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b> Enter the “<b>Remote Server Name</b>” 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: 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: alphanumeric.] [A value is required.]	
Field	Value	Description							
Remote Server Name *	RSSDSMP1	Unique identifier used to label a Remote Server. [Default: n/a; Range: A 32-character string. Valid characters: alphanumeric.] [A value is required.]							

## Procedure 12. Configuring ComAgent (All SOAM Sites)

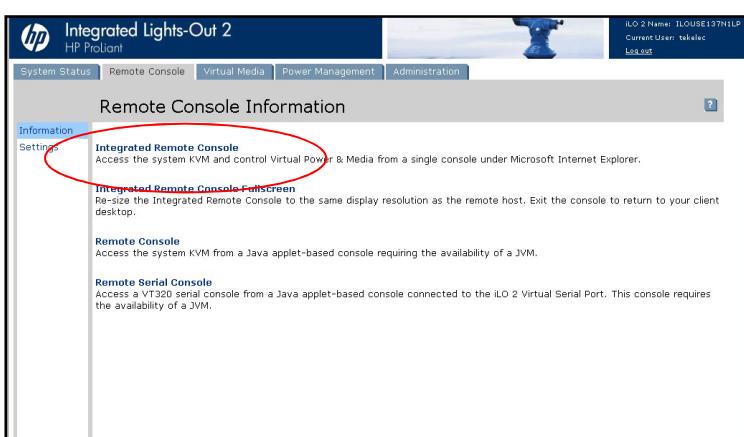
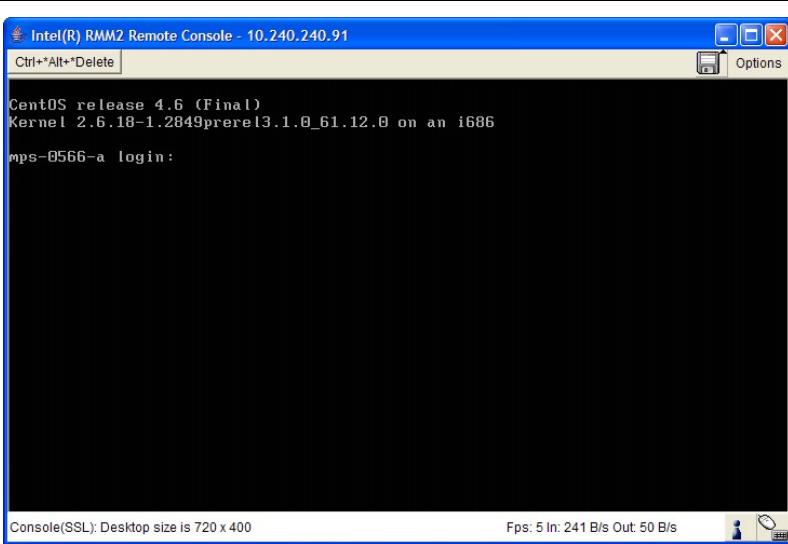
<b>7.</b> <input type="checkbox"/>	<b>Primary SDS VIP:</b> Enter the “ <b>Remote Server IMI IP Address</b> ”.	<p>Remote Server IPv4 IP Address <input type="text" value="169.254.5.157"/></p> <p>This is the IPv4 IP address of the Remote Server.  Default: n/a;  Range: A valid IPv4 IP address.</p>
		<p><b>NOTE:</b> This should be the IMI IP address of the MP blade.</p>
<b>8.</b> <input type="checkbox"/>	<b>Primary SDS VIP:</b> Select “ <b>Client</b> ” for the <b>Remote Server Mode</b> from the pull-down menu.	<p>Remote Server Mode * <input type="button" value="-- Select --"/></p> <p>Client Server</p> <p>Identifies the mode in which the Remote Server.  [A value is required.]</p>
<b>9.</b> <input type="checkbox"/>	<b>Primary SDS VIP:</b> Select the <b>Local Server Group</b> for the SDS Data Processor server group	<p>Available Local Server Groups <input type="text" value="dp_sds_1_grp"/></p> <p>Add selected Local Server Group(s).</p> <p>Assigned Local Server Groups <input type="text"/></p> <p>&gt;&gt; &lt;&lt;</p>
<b>10.</b> <input type="checkbox"/>	<b>Primary SDS VIP:</b> Click the “ <b>Apply</b> ” dialogue button	<p>Available Local Server Groups <input type="text"/></p> <p>Assigned Local Server Groups <input type="text" value="dp_sds_1_grp"/></p> <p>&gt;&gt; &lt;&lt;</p> <p>Ok Apply Cancel</p>
<b>11.</b> <input type="checkbox"/>	<b>Primary SDS VIP:</b> Under the “ <b>Info</b> ” banner option, the user should be presented with a message stating “ <b>Data committed</b> ”	<p><b>Main Menu: Communication Agent -&gt; Configuration -&gt; Remote Servers [Insert]</b></p> <p>Info <input type="button" value="Info"/></p> <p>Info <input type="button" value="Info"/> Data committed! <input type="text"/></p> <p>Remote Server Name * <input type="text" value="RSSDSMP1"/></p> <p>Description Unique identifier used to label a Remote Server.  [Default: n/a; Range: A 32-character string. Valid characters are alphanumeric.] [A value is required.]</p> <p>Remote Server IPv4 IP Address <input type="text" value="169.254.5.157"/></p> <p>This is the IPv4 IP address of the Remote Server. If  Default: n/a;  Range: A valid IPv4 IP address.</p>
<b>12.</b> <input type="checkbox"/>	<ul style="list-style-type: none"> <li>Repeat steps 5 – 11 of this procedure for each additional remote DA-MP in the associated DSR SOAM NE.</li> </ul>	
<b>THIS PROCEDURE HAS BEEN COMPLETED</b>		

## Appendix A. Accessing the iLO VGA Redirection Window

### Procedure 13. 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><b>NOTE:</b> 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><b>NOTE:</b> If presented with the “security certificate” warning screen shown to the right, choose the following option: “<b>Continue to this website (not recommended)</b>”.</p>	
3. <input type="checkbox"/>	Login to the iLO console as “Administrator”	

## Procedure 13. Accessing the iLO VGA Redirection Window

4.	<p>The admin GUI is displayed.</p> <p><input type="checkbox"/></p> <p>Select the “<b>Remote Console</b>” tab in the upper left corner of the GUI.</p>	
5.	<p>The Remote Console Information GUI is displayed</p> <p><input type="checkbox"/></p> <p>Click on the “<b>Integrated Remote Console</b>” option</p>	
6.	<p>The iLO Console window is displayed.</p> <p><input type="checkbox"/></p> <p><b>NOTE:</b> 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.

### Procedure 14. Creating Temporary External IP Address for Accessing SDS GUI

<b>Step</b>	In this procedure you will configure a temporary external IP Address for SDS Server A for the 1 <sup>st</sup> SDS site. The user will use this IP Address in a web browser to access the GUI to configure the first SDS server.	
<b>1.</b> <input type="checkbox"/>	Log onto the SDS NOAM Server A ILO  <b>NOTE:</b> Output similar to that shown on the right will appear.	CentOS release 5.6 (Final) Kernel 2.6.18-238.19.1.el5prerel5.0.0_72.22.0 on an x86_64  hostname1260476221 login: <b>admusr</b> Password: <b>&lt;admusr_password&gt;</b>
<b>2.</b> <input type="checkbox"/>	For GEN8: Delete bond0  For GEN9: Delete bond0	\$ sudo <b>netAdm delete --device=bond0</b> eth01 was successfully removed from bond0 eth11 was successfully removed from bond0 Interface bond0 removed  For GEN9:  \$ sudo <b>netAdm delete --device=bond0</b> eth01 was successfully removed from bond0 eth02 was successfully removed from bond0 Interface bond0 removed
<b>3.</b> <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 <b>netAdm set --device=eth02 --onboot=yes --netmask=255.255.255.0 --address=&lt;XMI_IP_Address_for_SDS_A&gt;</b> Interface eth02 updated  For GEN9:  \$ sudo <b>netAdm set --device=eth03 --onboot=yes --netmask=255.255.255.0 --address=&lt;XMI_IP_Address_for_SDS_A&gt;</b> Interface eth03 updated
<b>4.</b> <input type="checkbox"/>	Add route to the default gateway for the first SDS site	For GEN8:  \$ sudo <b>netAdm add --device=eth02 --route=default --gateway=&lt;XMI_IP_Address_for_default_gateway&gt;</b> Route to eth02 added  For GEN9:  \$ sudo <b>netAdm add --device=eth03 --route=default --gateway=&lt;XMI_IP_Address_for_default_gateway&gt;</b> Route to eth03 added
<b>5.</b> <input type="checkbox"/>	Wait a few minutes and then ping the default gateway to ensure connectivity.	\$ <b>ping &lt;XMI_IP_Address_for_default_gateway&gt;</b>

**Procedure 14. Creating Temporary External IP Address for Accessing SDS GUI**

<b>6.</b> <input type="checkbox"/>	Log off the ILO	\$ <b>exit</b>
<b>THIS PROCEDURE HAS BEEN COMPLETED</b>		

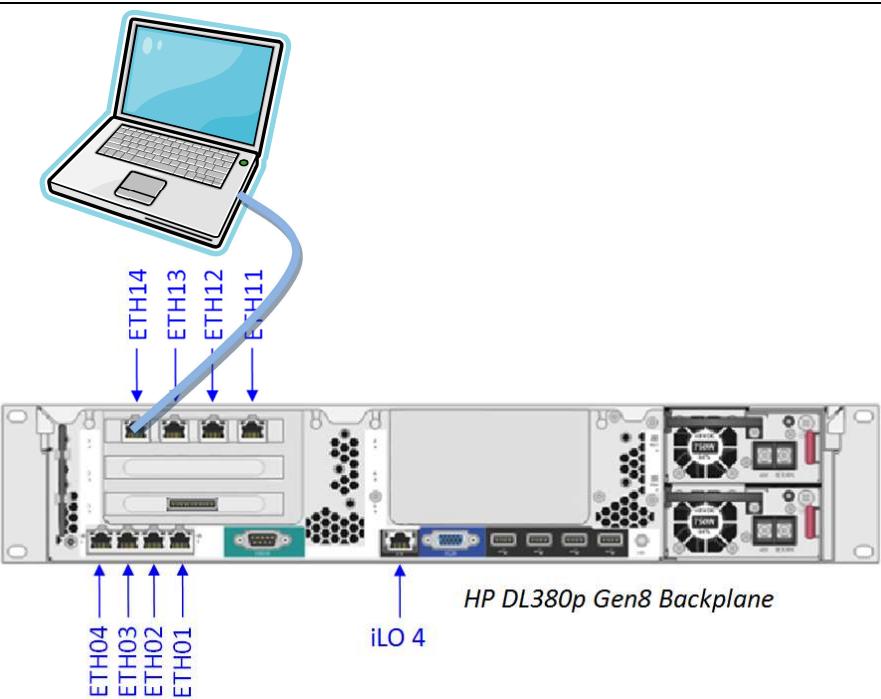
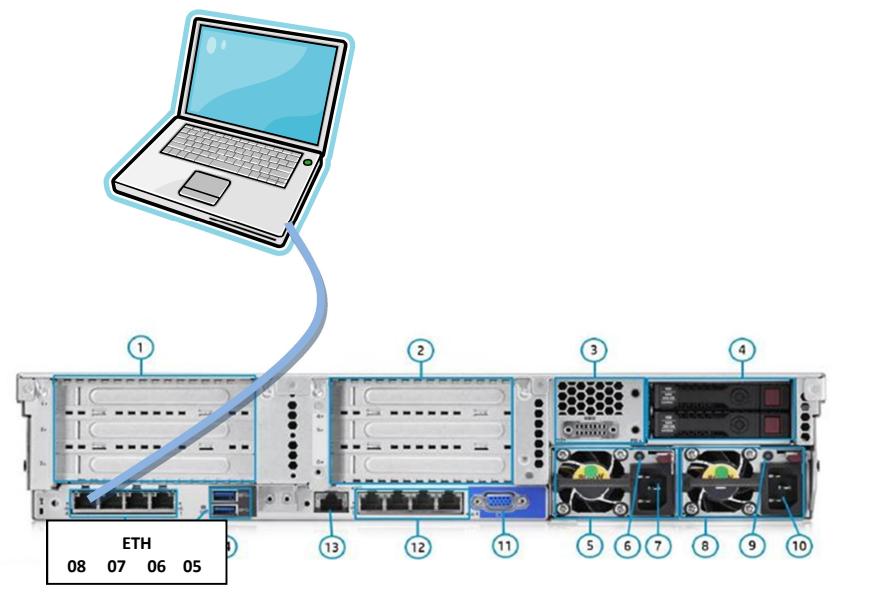
**Appendix C. Establish a Local Connection for Accessing the SDS GUI**

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.

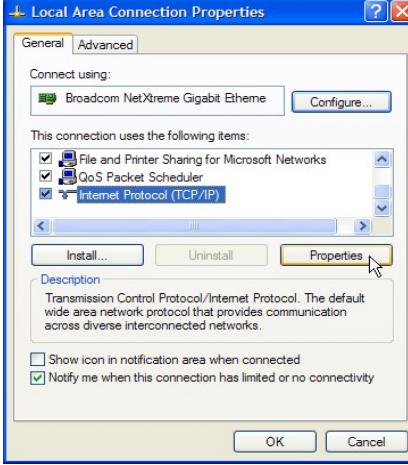
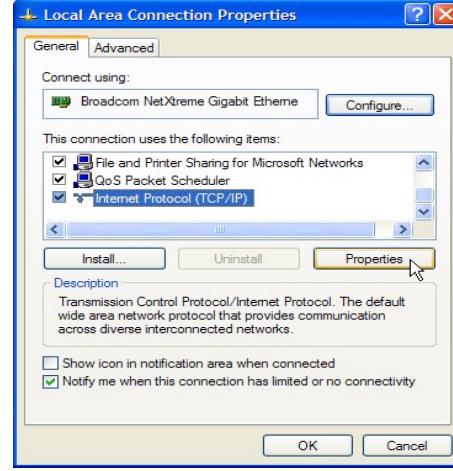
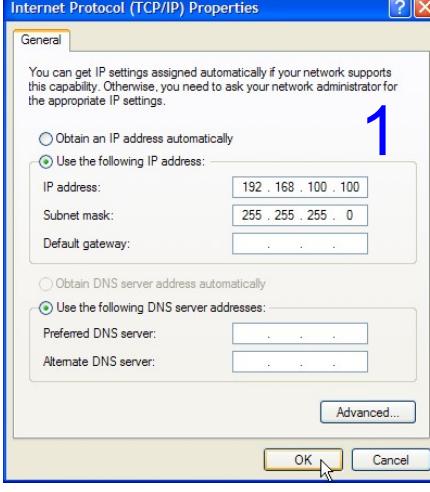
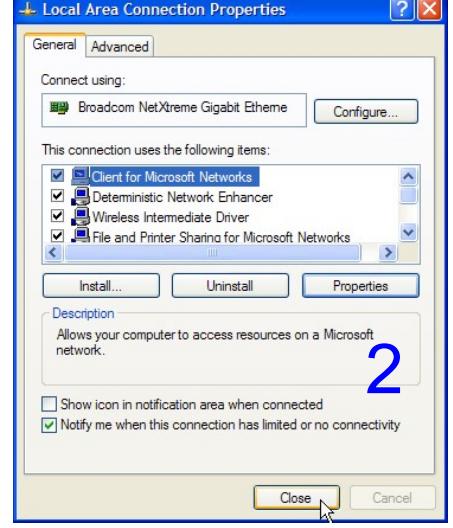
**Procedure 15. Establish a Local Connection for Accessing SDS GUI**

<b>Step</b>	In this procedure you will configure a temporary external IP Address for SDS Server NOAM A for the 1 <sup>st</sup> SDS site. The user will use this IP Address in a web browser to access the GUI to configure the first SDS server.	
<b>1.</b> <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 <b>Section 2.3</b> .
<b>2.</b> <input type="checkbox"/>	<b>1)</b> Access the command prompt. <b>2)</b> Log into the SDS NOAM-A server as the "admusr" user.	CentOS release 5.6 (Final) Kernel 2.6.18-238.19.1.el5prerel5.0.0_72.22.0 on an x86_64 hostname1260476221 login: <b>admusr</b> Password: <b>&lt;admusr_password&gt;</b>
<b>3.</b> <input type="checkbox"/>	<b>This step, DL380 GEN8 only!</b> 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
<b>4.</b> <input type="checkbox"/>	<b>This step, DL380 GEN9 only!</b> 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

## Procedure 15. Establish a Local Connection for Accessing SDS GUI

<input type="checkbox"/> <b>5.</b>	<b>Execute this step for HP DL380 GEN8:</b> <p><b>1)</b> Plug in one end of the Ethernet cable (straight-thru) into the back of SDS NOAM-A server <b>ETH14</b> (top left port).</p> <p><b>2)</b> Plug the other end of the Ethernet cable into the laptop's Ethernet jack.</p>	 <p><b>HP DL380p Gen8 Backplane</b></p> <p>ETH14 ETH13 ETH12 ETH11 ETH04 ETH03 ETH02 ETH01 iLO 4</p> <p><b>Figure 16 – HP DL380 GEN9: DC (Rear Panel)</b></p>  <p>ETH 08 07 06 05 1 2 3 4 13 12 11 10 5 6 7 8 9</p>
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## Procedure 15. Establish a Local Connection for Accessing SDS GUI

<b>6.</b> <input type="checkbox"/>	Access the laptop network interface card's TCP/IP "Properties" screen.  <b>NOTE:</b> For this step follow the instruction specific to the laptop's OS (XP, Vista or Win 7).	<p><b>Windows XP</b></p> <ul style="list-style-type: none"> <li>Go to Control Panel</li> <li>Double-click on Network Connections</li> <li>Right-click the wired Ethernet Interface icon and select "Properties"</li> </ul> <p>Select "Internet Protocol (TCP/IP)" and select "Properties"</p> 	<p><b>Windows Vista / Win 7</b></p> <ul style="list-style-type: none"> <li>Go to Control Panel.</li> <li>Double-click on Network and Sharing Center</li> <li>Select Manage Network Connections (left menu)</li> <li>Right-click the wired Ethernet Interface icon and select "Properties"</li> </ul> <p>Select "Internet Protocol Version 4 (TCP/IPv4)"</p> 
<b>7.</b> <input type="checkbox"/>	<p><b>1)</b> 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 <b>Step 3</b> of this procedure (<b>192.168.100.100</b> is suggested) and click "OK".</p> <p><b>2)</b> Click "Close" from the network interface card's main "Properties" screen.</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		
44	SDS - DC - Seismic	
43	PDP-A	PWR
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 17 – SDS Frame Layout

## D-1. Verifying Cisco Switch Wiring (All SDS NOAM Sites)

### Procedure 16. Verifying Cisco Switch Wiring (SDS Sites)

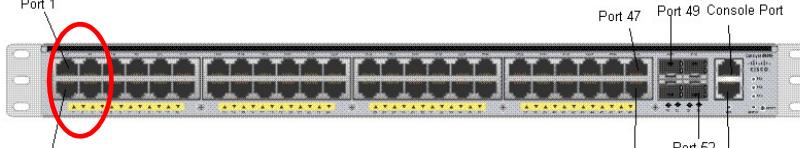
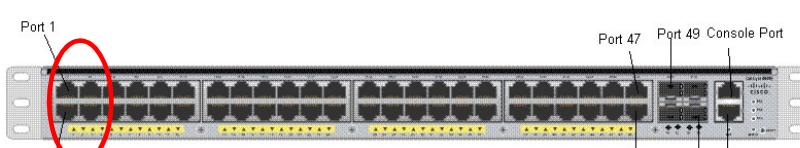
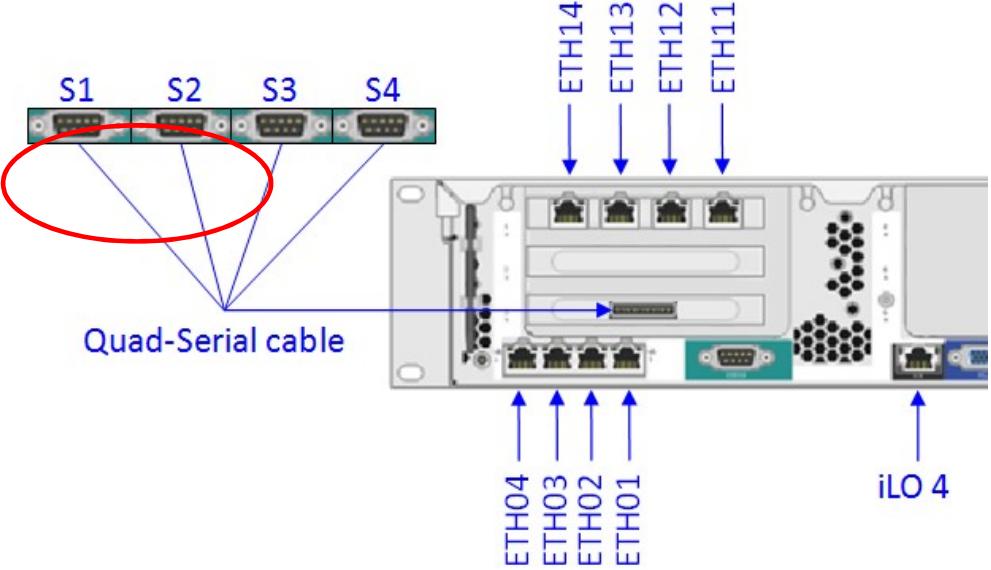
Step	Procedure	Result
1.	<p>Set/Verify the following cable configuration at the Cisco 4948E-F switches:</p> <p><input type="checkbox"/> 1) Verify that the ISL switch1A, Port 1 to switch1B, Port 1 is <b>CONNECTED.</b></p> <p><input type="checkbox"/> 2) Verify that the ISL switch1A, Port 2 to switch1B, Port 2 is <b>CONNECTED.</b></p> <p><input type="checkbox"/> 3) Verify that the ISL switch1A, Port 3 to switch1B, Port 3 is <b>CONNECTED.</b></p> <p><input type="checkbox"/> 4) Verify that the ISL switch1A, Port 4 to switch1B, Port 4 is <b>CONNECTED.</b></p>	<p><b>1B</b> switch1B (Top)</p>  <p><b>1A</b> switch1A (Bottom)</p> 
2.	<p><b>DL380 GEN8 only :</b> Verify that <b>SERVER A</b> has the Quad-Serial card interface ports connected to the <b>Console Port</b> each switch port.</p>	

Figure 19 – Cisco 4948E-F Switch (Console Port)

## Procedure 16. Verifying Cisco Switch Wiring (SDS Sites)

Step	Procedure	Result
<input type="checkbox"/>	<p>1) Verify that the <b>switch1A, Console Port</b> is <b>CONNECTED</b> to <b>SERVER A, Quad-Serial Port S1</b> using Cable 830-1229-xx.</p> <p>2) Verify that the <b>switch1B, Console Port</b> is <b>CONNECTED</b> to <b>SERVER A, Quad-Serial Port S2</b> using Cable 830-1229-xx.</p>	 <p>The diagram illustrates the rear panel of an HP DL380 GEN8 server. On the left, four serial ports (S1, S2, S3, S4) are shown, with S1 and S2 highlighted in blue. A red circle is drawn around the connection between the server's rear panel and the iLO port. The text 'Quad-Serial cable' is written below the connection point. On the right, the server's rear panel is shown with various ports and components. The Quad-Serial cable is connected to the server's rear panel, and the iLO port is also connected. The ports are labeled as follows: ETH14, ETH13, ETH12, ETH11 (top right); ETH04, ETH03, ETH02, ETH01 (bottom left); and iLO 4 (bottom right).</p>
3.	<p><b>This step, DL380 GEN8 only!</b></p> <p>1) Verify that <b>switch1A, Port 5</b> is <b>CONNECTED</b> to <b>SERVER A, ETH01</b>.</p>	

## Procedure 16. Verifying Cisco Switch Wiring (SDS Sites)

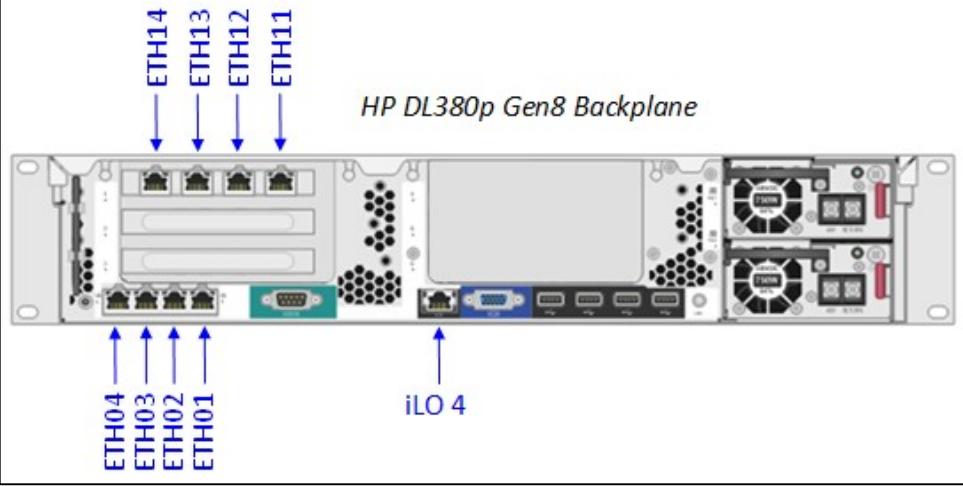
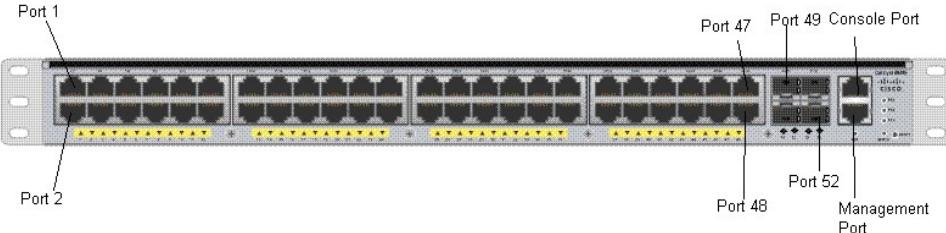
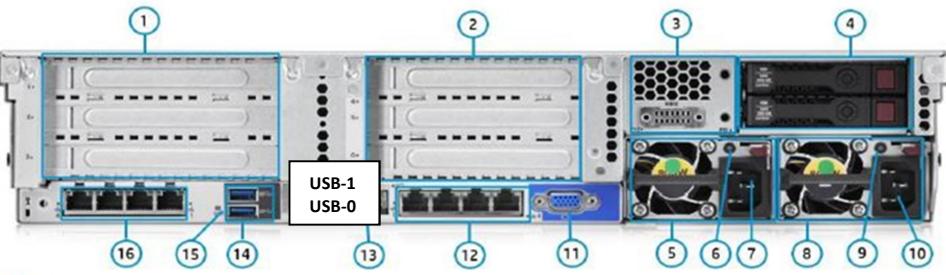
Step	Procedure	Result
<input type="checkbox"/>	2) Verify that <b>switch1B, Port 5</b> is <b>CONNECTED to SERVER A, ETH11.</b>	
<input type="checkbox"/>	3) Verify that <b>switch1A, Port 6</b> is <b>CONNECTED to SERVER B, ETH01.</b>	
<input type="checkbox"/>	4) Verify that <b>switch1B, Port 6</b> is <b>CONNECTED to SERVER B, ETH11.</b>	
<input type="checkbox"/>	5) Verify that <b>switch1A, Port 7</b> is <b>CONNECTED to SERVER C, ETH01.</b>	
<input type="checkbox"/>	6) Verify that <b>switch1B, Port 7</b> is <b>CONNECTED to SERVER C, ETH11.</b>	

Figure 21 – HP DL380 GEN8: Rear Panel (Ethernet)

## Procedure 16. Verifying Cisco Switch Wiring (SDS Sites)

Step	Procedure	Result
4.	<p><b><i>This step, DL380 GEN9 only!</i></b></p> <p>1) Verify that the <b>switch1A, Console Port</b> is <b>CONNECTED</b> to <b>SERVER A, USB Port USB0</b></p> <p>2) Verify that the <b>switch1B, Console Port</b> is <b>CONNECTED</b> to <b>SERVER A, USB Port USB1</b></p>	 <p>Figure 22 – Cisco 4948E-F Switch (Console Port)</p>  <p>Figure 23 – HP DL380 GEN9: DC (Rear Panel)</p>

## Procedure 16. Verifying Cisco Switch Wiring (SDS Sites)

Step	Procedure	Result
5.	<p><b>This step, DL380 GEN9 only!</b></p> <p>1) Verify that switch1A, Port 5 is <b>CONNECTED to SERVER A, ETH01</b></p> <p>2) Verify that switch1B, Port 5 is <b>CONNECTED to SERVER A, ETH02</b></p> <p>3) Verify that switch1A, Port 6 is <b>CONNECTED to SERVER B, ETH01</b></p> <p>4) Verify that switch1B, Port 6 is <b>CONNECTED to SERVER B, ETH02</b></p> <p>5) Verify that switch1A, Port 7 is <b>CONNECTED to SERVER C, ETH01</b></p> <p>6) Verify that switch1B, Port 7 is <b>CONNECTED to SERVER C, ETH02</b></p>	
		<b>Figure 24 – HP DL380 GEN9: DC (Rear Panel)</b>
		<b>THIS PROCEDURE HAS BEEN COMPLETED</b>

## 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	<b>ttyS4</b>	ttyUSB0
<switch1B_serial_port>	SERVER A	<b>ttyS5</b>	ttyUSB1
Variable			

<IOS_image_file>	Fill in the appropriate value from [6]: _____
<b>Variable</b>	<b>Value</b>
<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 ) [2][10]	_____
< SERVER B_iLO_ip > ( See NAPD documentation for IP Address ) [2][10]	_____

Ethernet Interface	DL380 GEN8 /	DL380 GEN9
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<ethernet_interface_1>	bond0.2 (eth01, eth11)	bond0.2 (eth01, eth02)
<ethernet_interface_2>	bond0.4 (eth01, eth11)	bond0.4 (eth01, eth02)
<b>Variable</b>	<b>Value</b>	
<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. Determining which cables are used for customer uplink.

#### Needed Material:

- HP Misc. Firmware DVD
- HP Solutions Firmware Upgrade Pack Release Notes [5]
- 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.

#### Procedure 17. Configuring Cisco 4948E-F Switches (All SDS NOAM Sites)

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

## Procedure 17. Configuring Cisco 4948E-F Switches (All SDS NOAM Sites)

Step	Procedure	Result
3.	<p><b> SERVER A:</b></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><b> SERVER A:</b></p> <p><u>DL 380 GEN 8:</u></p> <p>Verify quad-serial port mappings (quad-dongle S1 = ttyS4, quad-dongle S2 = ttyS5)</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><b> SERVER A:</b></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/ttysUSB0, UART: unknown, Port: 0x0000, IRQ: 0, Flags: low_latency /dev/ttysUSB1, UART: unknown, Port: 0x0000, IRQ: 0, Flags: low_latency</pre>

## Procedure 17. Configuring Cisco 4948E-F Switches (All SDS NOAM Sites)

Step	Procedure	Result
6.	<b>SERVER A:</b> <input type="checkbox"/> For GEN8: Setup conserver serial console access for switch1A	<pre>\$ sudo conserverSetup -i -s &lt;SERVER_A_mgmtVLAN_ip_address&gt;</pre> <p>Example:</p> <pre>\$ sudo conserverSetup -i -s 169.254.1.11</pre> <p>Enter your platcfg username, followed by [ENTER]:<b>platcfg</b></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> <pre>Product Name: SDS Base Distro Release: 7.0.0.0.0_86.14.0</pre> <p>Checking Platform Revision for remote TPD installation...</p> <p>The remote machine is running:</p> <pre>Product Name: SDS Base Distro Release: 7.0.0.0.0_86.14.0</pre> <p>Enter the switch name for this console connection (default: "switch1A_console"), followed by [ENTER]:<b>switch1A_console</b></p> <p>Enter the serial device designation for switch1A_console (default: "ttyUSB0"), followed by [ENTER]:<b>ttyS4</b></p> <p>Configure additional serial consoles [Y/n]? [press ENTER for default &lt;Y&gt;]: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> <pre>bond0 bond0.4 bond1 eth01 eth02 eth11 eth12</pre> <p>Enter the name of the bond on the remote server (default: "bond0"), followed by [ENTER]:</p> <p>...No entry provided for bond. Resorting to default.</p> <p>Slave interfaces for bond0:</p> <pre>bond0 interface: eth01 bond0 interface: eth11</pre>

## Procedure 17. Configuring Cisco 4948E-F Switches (All SDS NOAM Sites)

Step	Procedure	Result
7.	<b>SERVER A:</b> Note: For DL380 GEN9 only: Setup conserver serial console access for switch1A	<pre>\$ sudo conserverSetup -i -u &lt;SERVER_A_mgmtVLAN_ip_address&gt;</pre> <p>Example:</p> <pre>\$ sudo conserverSetup -i -u 169.254.1.11</pre> <p>Enter your platcfg username, followed by [ENTER]:<b>platcfg</b></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> <pre>Product Name: SDS</pre> <p>Base Distro Release: 7.0.0.0.0_86.14.0</p> <p>Checking Platform Revision for remote TPD installation...</p> <p>The remote machine is running:</p> <pre>Product Name: SDS</pre> <p>Base Distro Release: 7.0.0.0.0_86.14.0</p> <p>Enter the switch name for this console connection (default: "switch1A_console"), followed by [ENTER]:<b>switch1A_console</b></p> <p>Enter the serial device designation for switch1A_console (default: "ttyUSB0"), followed by [ENTER]:<b>ttyUSB0</b></p> <p>Configure additional serial consoles [Y/n]? [press ENTER for default &lt;Y&gt;]: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> <pre>bond0 bond0.4 bond1 eth01 eth02 eth11 eth12</pre> <p>Enter the name of the bond on the remote server (default: "bond0"), followed by [ENTER]:</p> <p>...No entry provided for bond. Resorting to default.</p> <p>Slave interfaces for bond0:</p> <pre>bond0 interface: eth01 bond0 interface: eth02</pre>

## Procedure 17. Configuring Cisco 4948E-F Switches (All SDS NOAM Sites)

Step	Procedure	Result
8.	<b>SERVER A:</b>  Note: For DL380 GEN8:  Setup conserver serial console access for switch1B	<pre>\$ sudo conserverSetup -i -s &lt;SERVER_A_mgmtVLAN_ip_address&gt;</pre> <p>Example:</p> <pre>\$ sudo conserverSetup -i -s 169.254.1.11</pre> <p>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: 7.0.0.0.0_86.14.0  Checking Platform Revision for remote TPD installation...  The remote machine is running:  Product Name: SDS  Base Distro Release: 7.0.0.0.0_86.14.0  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 &lt;Y&gt;]: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>

## Procedure 17. Configuring Cisco 4948E-F Switches (All SDS NOAM Sites)

Step	Procedure	Result
9.	<p><b>SERVER A:</b></p> <p><b>Note : For DL380 GEN9</b></p> <p>Setup conserver serial console access for switch1B</p>	<pre>\$ sudo conserverSetup -i -u &lt;SERVER_A_mgmtVLAN_ip_address&gt;</pre> <p>Example:</p> <pre>\$ sudo conserverSetup -i -u 169.254.1.11</pre> <p>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: 7.0.0.0.0_86.14.0  Checking Platform Revision for remote TPD installation...  The remote machine is running:  Product Name: SDS  Base Distro Release: 7.0.0.0.0_86.14.0  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 &lt;Y&gt;]: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 </p>

## Procedure 17. Configuring Cisco 4948E-F Switches (All SDS NOAM Sites)

Step	Procedure	Result
10. <input type="checkbox"/>	<b>SERVER A:</b> Add a repository for SSH service	\$ sudo netConfig --repo addService name=ssh_service Service type? (tftp, ssh, conserver, oa) <b>ssh</b> SSH host IP? <b>169.254.1.11</b> SSH username: <b>admusr</b> SSH password? <user_password> Verify password: <user_password> Add service for ssh_service successful
11. <input type="checkbox"/>	<b>SERVER A:</b> Verify you have entered the information correctly for SSH service	\$ sudo netConfig --repo showService name=ssh_service Service Name: <b>ssh_service</b> Type: ssh Host: 169.254.1.11 Options: password: 615EBD88232A2EFD0080AC990393083D user: admusr
12. <input type="checkbox"/>	<b>SERVER A:</b> Add a repository for TFTP service	\$ sudo netConfig --repo addService name=tftp_service Service type? (tftp, ssh, conserver, oa) <b>tftp</b> Service host? <b>169.254.1.11</b> Directory on host? <b>/var/lib/tftpboot/</b> Add service for tftp_service successful
13. <input type="checkbox"/>	<b>SERVER A:</b> Verify that you have entered the information correctly for TFTP service	\$ sudo netConfig --repo showService name=tftp_service Service Name: <b>tftp_service</b> Type: tftp Host: 169.254.1.11 Options: dir: /var/lib/tftpboot/
14. <input type="checkbox"/>	<b>SERVER A:</b> Create console service for switch1A	\$ sudo netConfig --repo addService name=switch1A_consVC Service type? (tftp, ssh, conserver, oa) <b>conserver</b> Conserver host IP? <b>169.254.1.11</b> Conserver username? <b>platcfg</b> Service password? <platcfg_password> Verify password: <platcfg_password> Add service for switch1A_consVC successful
15. <input type="checkbox"/>	<b>SERVER A:</b> Verify you have entered the information correctly for switch1A console service	\$ sudo netConfig --repo showService name=switch1A_consVC Service Name: <b>switch1A_consVC</b> Type: conserver Host: 169.254.1.11 Options: password: 0B902ECD13D5BD2F1B57B5BFC6E95FE9 user: platcfg

## Procedure 17. Configuring Cisco 4948E-F Switches (All SDS NOAM Sites)

Step	Procedure	Result
16. <input type="checkbox"/>	<b>SERVER A:</b> Add repository for switch1B console service	<pre>\$ sudo netConfig --repo addService name=switch1B_consVC Service type? (tftp, ssh, conserver, oa) <b>conserver</b> Conserver host IP? <b>169.254.1.11</b> Conserver username? <b>platcfg</b> Service password?: &lt;<b>platcfg_password</b>&gt; Verify password: &lt;<b>platcfg_password</b>&gt; Add service for console_service successful</pre>
17. <input type="checkbox"/>	<b>SERVER A:</b> Verify you have entered the information correctly for switch1B console service	<pre>\$ sudo netConfig --repo showService name=switch1B_consVC Service Name: <b>switch1B_consVC</b> Type: conserver Host: 169.254.1.11 Options:   password: 0B902ECD13D5BD2F1B57B5BFC6E95FE9   user: platcfg</pre>
18. <input type="checkbox"/>	<b>SERVER A:</b> Verify and remove the service named "console_service" if present	<pre>\$ sudo netConfig --repo showService name=console_service Services:   Service Name: <b>console_service</b>   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)? <b>y</b> Deleting service console_service...</pre>

## Procedure 17. Configuring Cisco 4948E-F Switches (All SDS NOAM Sites)

Step	Procedure	Result
19. <input type="checkbox"/>	<b>SERVER A:</b> Add repository for switch1A	<pre>\$ sudo netConfig --repo addDevice name=switch1A --reuseCredentials Device Vendor? Cisco Device Model? 4948E-F What is the IPv4 (CIDR notation) or IPv6 (address/prefix notation) address for management?: 169.254.1.1/24 Is the management interface a port or a vlan? [vlan]:vlan What is the VLAN ID of the management VLAN? [2]: 2 What is the name of the management VLAN? [management]: management What switchport connects to the management server? [GE40]: GE5 What is the switchport mode (access trunk) for the management server port? [trunk]: trunk What are the allowed vlans for the management server port? [1,2]: 1-4 Enter the name of the firmware file [cat4500e-entservicesk9-mz.122-54.WO.bin]: Enter the name of the upgrade file transfer service: tftp_service File transfer service to be used in upgrade: tftp_service WARNING: Could not find firmware file on local host. If using a local service, please update the device entry using the editDevice command or copy the file to the correct location.  Should the init oob adapter be added (y/n)? y  Adding consoleInit protocol for switch1A using oob... What is the name of the service used for OOB access? switch1A_conssvc What is the name of the console for OOB access? switch1A_console What is the platform access username? platcfg What is the device console password? Verify password:  What is the platform user password? Verify password:  What is the device privileged mode password? Verify password:  Should the live network adapter be added (y/n)? y  Adding cli protocol for switch1A using network... Network device access already set: 169.254.1.1  Should the live oob adapter be added (y/n)? y  Adding cli protocol for switch1A using oob... OOB device access already set: switch1A_conssvc Device named switch1A successfully added.</pre>

## Procedure 17. Configuring Cisco 4948E-F Switches (All SDS NOAM Sites)

Step	Procedure	Result
20. <input type="checkbox"/>	<b>SERVER A:</b> Add repository for switch1B	<pre>\$ sudo netConfig --repo addDevice name=switch1B --reuseCredentials Device Vendor? Cisco Device Model? 4948E-F What is the IPv4 (CIDR notation) or IPv6 (address/prefix notation) address for management?: 169.254.1.2/24 Is the management interface a port or a vlan? [vlan]:vlan What is the VLAN ID of the management VLAN? [2]: 2 What is the name of the management VLAN? [management]: management What switchport connects to the management server? [GE40]: GE5 What is the switchport mode (access trunk) for the management server port? [trunk]: trunk What are the allowed vlans for the management server port? [1,2]: 1-4 Enter the name of the firmware file [cat4500e-entservicesk9-mz.122-54.WO.bin]: Enter the name of the upgrade file transfer service: tftp_service File transfer service to be used in upgrade: tftp_service WARNING: Could not find firmware file on local host. If using a local service, please update the device entry using the editDevice command or copy the file to the correct location.  Should the init oob adapter be added (y/n)? y  Adding consoleInit protocol for switch1A using oob... What is the name of the service used for OOB access? switch1B_cons What is the name of the console for OOB access? switch1B_console What is the platform access username? platcfg What is the device console password? Verify password:  What is the platform user password? Verify password:  What is the device privileged mode password? Verify password:  Should the live network adapter be added (y/n)? y  Adding cli protocol for switch1A using network... Network device access already set: 169.254.1.2  Should the live oob adapter be added (y/n)? y  Adding cli protocol for switch1A using oob... OOB device access already set: switch1B_cons Device named switch1B successfully added.</pre>

## Procedure 17. Configuring Cisco 4948E-F Switches (All SDS NOAM Sites)

Step	Procedure	Result
21. <input type="checkbox"/>	<b>SERVER A:</b> Verify you have entered the information correctly	<pre>\$ 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</pre>
22. <input type="checkbox"/>	<b>SERVER A:</b> Log in to switch1A	<p><b>Example:</b></p> <pre>console -M &lt;SERVER A_mgmtVLAN_ip_address&gt; -l platcfg switch1A_console  \$ /usr/bin/console -M 169.254.1.11 -l platcfg switch1A_console  Enter platcfg@pmac5000101's password: &lt;platcfg_password&gt; [Enter '^Ec?' for help] Press &lt;Enter&gt;</pre>
23. <input type="checkbox"/>	<b>switch1A:</b> Note the image version for comparison in a following step.	<pre>Switch&gt; show version   include image System image file is "bootflash:cat4500e-entservicesk9-mz.122-54.XO.bin"</pre> <p>Note the image version for comparison in a following step.</p>



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

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

**NOTE:** For each switch, compare the IOS version from previous steps with the IOS version specified in the Firmware Upgrade Pack Release Notes [5] 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.

#### Procedure 18. Configure Cisco 4948E-F Aggregation Switches (All SDS NOAM Sites)

Step	Procedure	Result
24. <input type="checkbox"/>	<b>Switch1A:</b>  Execute “ <b>show bootflash</b> ” to verify that only the correct bootflash is present.	<pre>Switch&gt; 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</pre>
25. <input type="checkbox"/>	<b>Switch1A:</b>  Reset switch back to factory defaults by deleting the VLANs.	<pre>Switch&gt;en Password: Switch#write erase  Erasing the nvram filesystem will remove all configuration files! Continue? [confirm] &lt;ENTER&gt; [OK] Erase of nvram: complete Switch# *Jan 26 12:53:06.547: %SYS-7-NV_BLOCK_INIT: Initialized the geometry of nvram &lt;ENTER&gt; 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#</pre>
26. <input type="checkbox"/>	<b>Switch1A:</b>  Reload the switch.	<pre>Switch#reload  System configuration has been modified. Save? [yes/no]: no Proceed with reload? [confirm] &lt;ENTER&gt;</pre>

Step	Procedure	Result
27. <input type="checkbox"/>	<b>Switch1A:</b> 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"/>	<b>Switch1A:</b> Enter "enable" mode.	Switch#enable Switch#
29. <input type="checkbox"/>	<b>Switch1A:</b> 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"/>	<b>Switch1A:</b> Close connection to switch.	Switch#quit  Switch con0 is now available  Press RETURN to get started.
31. <input type="checkbox"/>	<b>switch1A:</b> Note the image version for comparison in a following step.	Exit from console by typing <b>CTRL+E+c+.</b> (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"/>	<b>SERVER A:</b> Log in to switch1B	<b>Example:</b> 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>

Step	Procedure	Result
33. <input type="checkbox"/>	<b>Switch1B:</b>  Note the image version for comparison in a following step.	Switch> <b>show version   include image</b> 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 [5] 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"/>	<b>Switch1B:</b>  Execute " <b>show bootflash</b> " to verify that only the correct bootflash is present.	Switch> <b>show bootflash</b> -#--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"/>	<b>Switch1B:</b>  Reset switch back to factory defaults by deleting the VLANs.	Switch> <b>en</b> Password: Switch# <b>write erase</b>  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# <b>config t</b> Enter configuration commands, one per line. End with CNTL/Z. Switch(config)# <b>no vlan 2-1024</b> %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)# <b>config-register 0x2101</b> Switch(config)# <b>end</b> Switch#

Step	Procedure	Result
36. <input type="checkbox"/>	<b>Switch1B:</b>  Reload the switch.	<pre>Switch#<b>reload</b> System configuration has been modified. Save? [yes/no]: <b>no</b> Proceed with reload? [confirm] &lt;ENTER&gt;</pre>
37. <input type="checkbox"/>	<b>Switch1B:</b>  Monitor the switch reboot until it returns to a login prompt.	<pre>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! &lt;ENTER&gt;</pre> <p>Switch&gt;</p>
38. <input type="checkbox"/>	<b>Switch1B:</b>  Enter "enable" mode.	<pre>Switch#<b>enable</b> Switch#</pre>
39. <input type="checkbox"/>	<b>Switch1B:</b>  Verify that you see the correct IOS version listed in the bootflash.	<pre>Switch#<b>dir bootflash:</b> 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#</pre>
40. <input type="checkbox"/>	<b>Switch1B:</b>  Close connection to switch.	<pre>Switch#<b>quit</b> Switch con0 is now available  Press RETURN to get started.</pre>
41. <input type="checkbox"/>	<b>Switch1B:</b>  Note the image version for comparison in a following step.	<p>Exit from console by typing <b>CTRL+E+c+.</b> (combination control character and 'e' character, followed by sequence 'c' character, then 'period' character) and you will be returned to the server prompt.</p>

Step	Procedure	Result
42.		<p><b>Open firewall with command:</b></p> <pre>sudo iptablesAdm insert --type=rule --protocol=ipv4 --domain=10platnet --table=filter --chain=INPUT --persist=yes --match="-s 169.254.1.0/24 -p udp --dport 69 -j ACCEPT" --location=1</pre> <p><b>Turn on tftp:</b></p> <pre>\$ tpdProvD --client --noxml --ns=Xinetd startXinetdService service tftp Login on Remote: platcfg Password of platcfg: &lt;platcfg_password&gt; 1  \$</pre>
43.	<input type="checkbox"/> <p><b>SERVER A:</b> Initialize switch 1A</p>	<p><b>SUDO</b></p> <pre>\$ sudo netConfig --file=/usr/TKLC/plat/etc/switch/xml/switch1A_SDS_4948E_E-F_init.xml Processing file: /usr/TKLC/plat/etc/switch/xml/switch1A_SDS_4948E-F_init.xml \$</pre> <p><b>Note:</b> 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"/> <p><b>SERVER A:</b> Initialize switch 1B</p>	<p><b>SUDO</b></p> <pre>\$ sudo netConfig --file=/usr/TKLC/plat/etc/switch/xml/switch1B_SDS_4948E_E-F_init.xml Processing file: /usr/TKLC/plat/etc/switch/xml/switch1B_SDS_4948E-F_init.xml \$</pre> <p><b>Note:</b> 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><b>SERVER A:</b></p> <p><input type="checkbox"/> Ping switch 1A's SVI (router interface) addresses to verify switch initialization.</p> <p><b>Note:</b> VIP addresses are not yet available.</p>	<pre>\$ ping -c 15 169.254.1.1</pre> <p>PING 169.254.1.1 (169.254.1.1) 56(84) bytes of data.</p> <p>64 bytes from 169.254.1.1: icmp_seq=1 ttl=255 time=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</p> <p>--- 169.254.1.1 ping statistics ---</p> <p>15 packets transmitted, 15 received, 0% packet loss, time 14006ms</p> <p>rtt min/avg/max/mdev = 0.381/0.592/3.097/0.669 ms \$</p>
46.	<p><b>SERVER A:</b></p> <p><input type="checkbox"/> Ping switch 1B's SVI (router interface) addresses to verify switch initialization.</p> <p><b>Note:</b> VIP addresses are not yet available.</p>	<pre>\$ ping -c 15 169.254.1.2</pre> <p>PING 169.254.1.2 (169.254.1.2) 56(84) bytes of data.</p> <p>64 bytes from 169.254.1.2: icmp_seq=9 ttl=255 time=2.76 ms  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</p> <p>--- 169.254.1.2 ping statistics ---</p> <p>15 packets transmitted, 7 received, +6 errors, 53% packet loss, time 14003ms</p> <p>rtt min/avg/max/mdev = 0.378/0.747/2.769/0.825 ms, pipe 3</p> <p><b>! 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.</b></p>

Step	Procedure	Result
47. <input type="checkbox"/>	<b>SERVER A:</b> Configure switch 1A	<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-E-F_configure.xml  \$</pre> <p>Note: This step takes about 2-3 minutes to complete.</p> <ul style="list-style-type: none"> <li>Check the output of this command for any errors. If this fails for any reason, stop this procedure and contact Customer Care Center.</li> <li>A successful completion of netConfig will return the user to the prompt.</li> </ul>
48.	<b>SERVER A:</b> Configure switch 1B	<pre>\$ sudo netConfig --file=/usr/TKLC/plat/etc/switch/xml/Primary_switch1B_SDS_4948E_E-F_configure.xml  Processing file: /usr/TKLC/plat/etc/switch/xml/Primary_switch1B_SDS_4948E-E-F_configure.xml  \$</pre> <p>Note: This step takes about 2-3 minutes to complete.</p> <ul style="list-style-type: none"> <li>Check the output of this command for any errors. If this fails for any reason, stop this procedure and contact Customer Care Center.</li> <li>A successful completion of netConfig will return the user to the prompt.</li> </ul>
49. <input type="checkbox"/>	<b>SERVER A:</b> Undo the temporary changes.	<pre>\$ tpdProvD --client --noxml --ns=Xinetd stopXinetdService service tftp  Login on Remote: platcfg  Password of platcfg: &lt;platcfg_password&gt;  1</pre>
50.	Close firewall.	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>

Step	Procedure	Result
51.	<b>SERVER A:</b> <input type="checkbox"/> Verify the switch is using the correct IOS image per platform version.	<pre>\$ sudo netConfig --device=switch1A listFirmware</pre> Image: cat4500e-entservicesk9-mz.122-54.XO.bin <pre>\$ sudo netConfig --device=switch1B listFirmware</pre> Image: cat4500e-entservicesk9-mz.122-54.XO.bin
52.	<b>SERVER A:</b> <input type="checkbox"/> Execute the "service network restart" to restore SERVER A networking to original state.  Output similar to that shown on the right may be observed.	<pre>\$ sudo service network restart</pre> [admusr@mrsvnc-sds-NO-a xml]\$ sudo service network restart Shutting down interface bond0.2: [ OK ] Shutting down interface bond0.4: [ OK ] Shutting down interface bond0: [ OK ] Shutting down interface bond1: [ OK ] Shutting down loopback interface: [ OK ] Bringing up loopback interface: [ OK ] Bringing up interface bond0: [ OK ] Bringing up interface bond1: Determining if ip address 10.75.160.146 is already in use for device bond1... [ OK ] Bringing up interface bond0.2: Determining if ip address 169.254.1.11 is already in use for device bond0.2... [ OK ] Bringing up interface bond0.4: Determining if ip address 169.254.100.11 is already in use for device bond0.4... [ OK ] \$

Step	Procedure	Result
53.	<p><b>SERVER A:</b></p> <p>Ping switch 1A's SVI (router interface) addresses to verify switch configuration.</p> <p><b>Note:</b> VIP addresses are not yet available.</p>	<pre>\$ ping -c 5 169.254.1.1 PING 169.254.1.1 (169.254.1.1) 56(84) bytes of data.  64 bytes from 169.254.1.1: icmp_seq=1 ttl=255 time=0.430 ms 64 bytes from 169.254.1.1: icmp_seq=2 ttl=255 time=0.426 ms 64 bytes from 169.254.1.1: icmp_seq=3 ttl=255 time=0.427 ms 64 bytes from 169.254.1.1: icmp_seq=4 ttl=255 time=0.426 ms  64 bytes from 169.254.1.1: icmp_seq=5 ttl=255 time=0.431 ms --- 169.254.1.1 ping statistics ---  5 packets transmitted, 5 received, 0% packet loss, time 4003ms rtt min/avg/max/mdev = 0.426/0.428/0.431/0.002 ms  \$</pre>
54.	<p><b>SERVER A:</b></p> <p>Ping switch 1B's SVI (router interface) addresses to verify switch configuration.</p> <p><b>Note:</b> VIP addresses are not yet available</p>	<pre>\$ ping -c 5 169.254.1.2 PING 169.254.1.2 (169.254.1.2) 56(84) bytes of data.  64 bytes from 169.254.1.2: icmp_seq=1 ttl=255 time=0.401 ms 64 bytes from 169.254.1.2: icmp_seq=2 ttl=255 time=0.394 ms 64 bytes from 169.254.1.2: icmp_seq=3 ttl=255 time=0.407 ms 64 bytes from 169.254.1.2: icmp_seq=4 ttl=255 time=0.393 ms 64 bytes from 169.254.1.2: icmp_seq=5 ttl=255 time=0.401 ms  --- 169.254.1.2 ping statistics ---  5 packets transmitted, 5 received, 0% packet loss, time 3999ms rtt min/avg/max/mdev = 0.393/0.399/0.407/0.013 ms  \$</pre>
55.	<p><b>SERVER A:</b></p> <p>Verify SSH capability from server A to switch 1A.</p>	<pre>\$ ssh platcfg@169.254.1.1 The authenticity of host '169.254.1.1 (169.254.1.1)' can't be established.  RSA key fingerprint is fd:83:32:34:3f:06:2f:12:e0:ea:e2:73:e2:c1:1e:6e.  Are you sure you want to continue connecting (yes/no)? yes  Warning: Permanently added '169.254.1.1' (RSA) to the list of known hosts.  Password: &lt;switch_platform_password&gt;</pre>
56.	<p><b>SERVER A:</b></p> <p>Close SSH connection to switch 1A.</p>	<pre>\$ quit Connection to 169.254.1.1 closed.</pre>

Step	Procedure	Result
57.	<b>SERVER A:</b> <input type="checkbox"/> Verify SSH capability from server A to switch 1B	<pre>\$ ssh platcfg@169.254.1.2</pre> <p>The authenticity of host '169.254.1.2 (169.254.1.2)' can't be established.</p> <p>RSA key fingerprint is 3a:1b:e0:92:99:73:9d:04:92:3f:72:37:c0:1c:a6:95.</p> <p>Are you sure you want to continue connecting (yes/no)? yes</p> <p>Warning: Permanently added '169.254.1.2' (RSA) to the list of known hosts.</p> <p>Password: &lt;switch_platform_password&gt;</p>
58.	<b>SERVER A:</b> <input type="checkbox"/> Close SSH connection to switch 1A.	<pre>\$ quit</pre> <p>Connection to 169.254.1.2 closed.</p>
59.	<b>SERVER B:</b> <input type="checkbox"/> Ping switch 1A's SVI (router interface) addresses to verify switch configuration.  <b>Note:</b> VIP addresses are not yet available.	<pre>\$ ping -c 5 169.254.1.1</pre> <p>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</p>
60.	<b>SERVER B:</b> <input type="checkbox"/> Ping switch 1B's SVI (router interface) addresses to verify switch configuration.  <b>Note:</b> VIP addresses are not yet available	<pre>\$ ping -c 5 169.254.1.2</pre> <p>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</p>

Step	Procedure	Result
61. <input type="checkbox"/>	<b>SERVER B:</b> Verify SSH capability from server B to switch 1A.	<pre>\$ ssh platcfg@169.254.1.1 The authenticity of host '169.254.1.1 (169.254.1.1)' can't be established. RSA key fingerprint is fd:83:32:34:3f:06:2f:12:e0:ea:e2:73:e2:c1:1e:6e. Are you sure you want to continue connecting (yes/no)? yes Warning: Permanently added '169.254.1.1' (RSA) to the list of known hosts. Password: &lt;switch_platform_password&gt;</pre>
62. <input type="checkbox"/>	<b>SERVER B:</b> Close SSH connection to switch 1A.	<pre>switch1A&gt; quit Connection to 169.254.1.1 closed.</pre>
63. <input type="checkbox"/>	<b>SERVER B:</b> Verify SSH capability from server B to switch 1B	<pre>\$ ssh platcfg@169.254.1.2 The authenticity of host '169.254.1.2 (169.254.1.2)' can't be established. RSA key fingerprint is 3a:1b:e0:92:99:73:9d:04:92:3f:72:37:c0:1c:a6:95. Are you sure you want to continue connecting (yes/no)? yes Warning: Permanently added '169.254.1.2' (RSA) to the list of known hosts. Password: &lt;switch_platform_password&gt;</pre>
64. <input type="checkbox"/>	<b>SERVER B:</b> Close SSH connection to switch 1B.	<pre>switch1B&gt; quit Connection to 169.254.1.2 closed.</pre>
65. <input type="checkbox"/>	<b>SERVER A:</b> Run Appendix D-4 to backup switch configuration.	
66. <input type="checkbox"/>	<b>SERVER A:</b> Exit from the command line to return the server console to the login prompt.	<pre>\$ exit logout  CentOS release 5.6 (Final) Kernel 2.6.18-238.19.1.el5prere15.0.0_72.22.0 on an x86_64</pre>
<b>THIS PROCEDURE HAS BEEN COMPLETED</b>		

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

### Procedure 19. Cisco 4948E-F IOS Upgrade (SDS Sites)

Step	Procedure	Result
1. <input type="checkbox"/>	<b>SERVER A:</b> Access the <b>SERVER A</b> console.	Connect to the <b>SERVER A</b> console using one of the access methods described in <b>Section 2.3</b> .
2. <input type="checkbox"/>	<b>SERVER A:</b> <b>1)</b> Access the command prompt. <b>2)</b> Log into the HP DL380 server as the “ <b>admusr</b> ” user.	CentOS release 5.6 (Final) Kernel 2.6.18-238.19.1.el5prerel5.0.0_72.20.0 on an x86_64  hostname1260476221 login: <b>admusr</b> Password: <b>&lt;admusr_password&gt;</b>
3. <input type="checkbox"/>	<b>SERVER A:</b> Output similar to that shown on the right will appear as the server access the command prompt.	<b>*** TRUNCATED OUTPUT ***</b>  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"/>	<b>SERVER A:</b> Verify IOS images on the system	\$ <b>ls /var/lib/tftpboot/</b> <b>&lt;IOS_image_file&gt;</b>  If the correct IOS version is displayed, skip forward to <b>Step 8</b> .

## Procedure 19. Cisco 4948E-F IOS Upgrade (SDS Sites)

Step	Procedure	Result
5.	<b>SERVER A:</b> <input type="checkbox"/> Place <b>USB drive</b> containing the the <b>HP Misc Firmware</b> image with the correct 4948E-F IOS version into the <b>SERVER A</b> front panel USB port.	 <p>Figure 25 – HP DL380 GEN8: Front Panel (USB Port)</p>  <p>Figure 26 – HP DL380 GEN9: Front Panel (USB Port)</p>
6.	<b>SERVER A:</b> <input type="checkbox"/> Copy IOS image onto the system	<pre>\$ mount /dev/scd0 /media/cdrom \$ cp /media/cdrom/files/&lt;New_IOS_image_file&gt; /var/lib/tftpboot/ \$ chmod 644 /var/lib/tftpboot/&lt;New_IOS_image_file&gt; \$ umount /media/cdrom</pre>
7.	Open firewall	Open firewall with command: <pre>sudo iptablesAdm insert --type=rule --protocol=ipv4 -- domain=10platnet --table=filter --chain=INPUT --persist=yes -- match="-s 169.254.1.0/24 -p udp --dport 69 -j ACCEPT" --location=1</pre>
8.	<b>SERVER A:</b> <input type="checkbox"/> Prepare the system for IOS transfer.	<pre>\$ tpdProvD --client --noxml --ns=Xinetd startXinetdService service tftp Login on Remote: <b>platcfg</b> Password of platcfg: &lt;<b>platcfg_password</b>&gt; 1 \$</pre>
9.	<b>SERVER A:</b> <input type="checkbox"/> Verify the current bonded interface configuration.	<pre>\$ ifconfig  grep bond bond0      Link encap:Ethernet  HWaddr 98:4B:E1:6E:87:6C bond0.2    Link encap:Ethernet  HWaddr 98:4B:E1:6E:87:6C bond0.4    Link encap:Ethernet  HWaddr 98:4B:E1:6E:87:6C bond1      Link encap:Ethernet  HWaddr 98:4B:E1:6E:87:6E \$</pre> <p><b>Execute one of the following options:</b></p> <ul style="list-style-type: none"> <li>• <i>If <b>bond0</b> &amp; <b>bond0.2</b> are both present, skip to Step 11.</i></li> <li>• <i>If only <b>bond0</b> is present, continue with the following step.</i></li> </ul>

## Procedure 19. Cisco 4948E-F IOS Upgrade (SDS Sites)

Step	Procedure	Result
10.	<p><b>SERVER A:</b></p> <p><b>For GEN8:</b></p> <p>Create the bond0.2 and add interfaces eth01 &amp; eth11 to it.</p> <p><b>For GEN9:</b></p> <p>Create the bond0.2 and add interfaces eth01 &amp; eth02 to it.</p>	<p><b>For GEN8:</b></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 &lt;SERVER A_mgmtVLAN_IP_address&gt; to bond0.2  \$ sudo netAdm add --device=bond0.2 --address=169.254.1.11 --netmask=255.255.255.0 --onboot=yes</pre> <p><b>For GEN9:</b></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 &lt;SERVER A_mgmtVLAN_IP_address&gt; to bond0.2  \$ sudo netAdm add --device=bond0.2 --address=169.254.1.11 --netmask=255.255.255.0 --onboot=yes</pre>

## Procedure 19. Cisco 4948E-F IOS Upgrade (SDS Sites)

Step	Procedure	Result
11.	<p><b>SERVER A:</b></p> <p>Disable the bond0.2 interface to switch1B and verify the bond0.2 IP address.</p>	<p>On SERVER A ensure that the interface connected to switch1A is the only interface available and obtain the IP address of &lt;SERVER A_mgmtVLAN_Interface&gt; by performing the following commands:</p> <p>For GEN8:</p> <pre>\$ sudo ifdown eth11 \$ sudo ifup eth01 \$ sudo ifconfig bond0.2 bond0.2 Link encap:Ethernet HWaddr 98:4B:E1:6E:87:6C       inet addr:169.254.1.11       Bcast:169.254.1.255 Mask: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)</pre> <p>The command output should contain the IP address of the &lt;SERVER A_mgmtVLAN_ip_address&gt;.</p> <p>For GEN9:</p> <pre>\$ sudo ifdown eth02 \$ sudo ifup eth01 \$ sudo ifconfig bond0.2 bond0.2 Link encap:Ethernet HWaddr 98:4B:E1:6E:87:6C       inet addr:169.254.1.11       Bcast:169.254.1.255 Mask: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)</pre> <p>The command output should contain the IP address of the &lt;SERVER A_mgmtVLAN_ip_address&gt;.</p>
12.	<p><b>SERVER A:</b></p> <p>Connect to switch1A console</p>	<pre>console -M &lt;SERVER A_mgmtVLAN_ip_address&gt; -l platcfg switch1A_console \$ /usr/bin/console -M 169.254.1.11 -l platcfg switch1A_console Enter platcfg@pmac5000101's password: &lt;platcfg_password&gt; [Enter `^Ec?' for help] Press &lt;Enter&gt;</pre>

## Procedure 19. Cisco 4948E-F IOS Upgrade (SDS Sites)

Step	Procedure	Result
13. <input type="checkbox"/>	<b>switch1A:</b> Enter enable mode	Switch> <b>enable</b> Switch#
14. <input type="checkbox"/>	<b>switch1A:</b> Configure switch port with this sequence of commands	Switch# <b>conf t</b> Switch(config)# <b>vlan 2</b> Switch(config)# <b>int vlan 2</b> Switch(config-if)# <b>ip address 169.254.1.1 255.255.255.0</b> Switch(config-if)# <b>no shut</b> Switch(config-if)# <b>int gi1/5</b> Switch(config-if)# <b>switchport mode trunk</b> Switch(config-if)# <b>spanning-tree portfast trunk</b> Switch(config-if)# <b>end</b>
15. <input type="checkbox"/>	<b>switch1A:</b> Test connectivity	<b>ping &lt;SERVER A_mgmtVLAN_ip_address&gt;</b>  Switch# <b>ping 169.254.1.11</b> 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"/>	<b>switch1A:</b> Upload IOS image to switch	Switch# <b>copy tftp: bootflash:</b> 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"/>	<b>switch1A:</b> Locate old IOS image to be removed	Switch# <b>dir bootflash:</b> 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)  <b>NOTE:</b> 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>

## Procedure 19. Cisco 4948E-F IOS Upgrade (SDS Sites)

Step	Procedure	Result
18. <input type="checkbox"/>	<b>switch1A:</b> Remove old IOS image	Switch# <b>delete /force /recursive bootflash:&lt;OLD_IOS_image&gt;</b> Switch#
19. <input type="checkbox"/>	<b>switch1A:</b> Locate old IOS image to be removed	Switch# <b>dir bootflash:</b> 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)  <i>NOTE: Here, you should see only the IOS version you uploaded.</i>
20. <input type="checkbox"/>	<b>Switch1A:</b> Reset switch back to factory defaults by deleting the VLANs.	Switch# <b>write erase</b>  Erasing the nvram filesystem will remove all configuration files! Continue? [confirm] <b>&lt;ENTER&gt;</b> [OK] Erase of nvram: complete Switch# *Jan 26 12:53:06.547: %SYS-7-NV_BLOCK_INIT: Initialized the geometry of nvram Switch# <b>config t</b> Enter configuration commands, one per line. End with CNTL/Z. Switch(config)# <b>no vlan 2-1024</b> %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)# <b>config-register 0x2101</b> Switch(config)# <b>end</b> Switch#
21. <input type="checkbox"/>	<b>switch1A:</b> Reload the switch	Switch# <b>reload</b>  System configuration has been modified. Save? [yes/no]: <b>no</b> Proceed with reload? [confirm] <b>&lt;ENTER&gt;</b>  <b>! WARNING!: It is extremely important to answer "no" to the above "Save?" option.</b>
22. <input type="checkbox"/>	<b>switch1A:</b> After the reload, enter <i>enable</i> mode.	Switch> <b>enable</b> Switch#
23. <input type="checkbox"/>	<b>switch1A:</b> Wait until the switch is reloaded, then confirm the correct IOS image.	Switch> <b>show version   include image</b> System image file is "bootflash:cat4500-entservicesk9-mz.122-54.WO.bin" Switch>  <i>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.</i>

## Procedure 19. Cisco 4948E-F IOS Upgrade (SDS Sites)

Step	Procedure	Result
24. <input type="checkbox"/>	<b>switch1A:</b> Locate old IOS image to be removed.	Switch# <b>dir bootflash:</b> 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)  <b>NOTE:</b> Here, you should see only the IOS version you uploaded.
25. <input type="checkbox"/>	<b>switch1A:</b> Exit the switch1A console session.	Switch# <CTRL-e><c><.>  <b>Hot Key sequence:</b> Ctrl-E, C, period
26. <input type="checkbox"/>	<b>SERVER A:</b> 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: \$ <b>sudo ifup eth11</b> \$ <b>sudo ifdown eth01</b>  For GEN9: \$ <b>ifup eth02</b> \$ <b>ifdown eth01</b>  <b>NOTE:</b> The command output should contain the IP address of the variable <SERVER A_mgmtVLAN_ip_address>.
27. <input type="checkbox"/>	<b>SERVER A:</b> Connect to switch1B console	<b>console -M &lt;SERVER A_mgmtVLAN_ip_address&gt; -l platcfg switch1B_console</b> \$ <b>/usr/bin/console -M 169.254.1.11 -l platcfg switch1B_console</b> Enter platcfg@pmac5000101's password: <platcfg_password> [Enter `^Ec?' for help] Press <Enter>
28. <input type="checkbox"/>	<b>switch1B:</b> Enter enable mode	Switch> <b>enable</b> Switch#
29. <input type="checkbox"/>	<b>switch1B:</b> Configure switch port with this sequence of commands	Switch# <b>conf t</b> Switch(config)# <b>vlan 2</b> Switch(config)# <b>int vlan 2</b> Switch(config-if)# <b>ip address 169.254.1.2 255.255.255.0</b> Switch(config-if)# <b>no shut</b> Switch(config-if)# <b>int gi1/5</b> Switch(config-if)# <b>switchport mode trunk</b> Switch(config-if)# <b>spanning-tree portfast trunk</b> Switch(config-if)# <b>end</b>

## Procedure 19. Cisco 4948E-F IOS Upgrade (SDS Sites)

Step	Procedure	Result
30.	<b>switch1B:</b> Test connectivity	<pre>ping &lt;management_SERVER A_mgmtVLAN_ip_address&gt;  Switch# ping 169.254.1.11 Type escape sequence to abort. Sending 5, 100-byte ICMP Echos to &lt;SERVER A_mgmtVLAN_ip_address&gt;, timeout is 2 seconds: !!!!! Success rate is 100 percent (5/5), round trip min/avg/max = 1/1/4 ms</pre> <p><b>NOTE:</b> 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.</p>
31.	<b>switch1B:</b> Upload IOS image to switch	<pre>Switch# copy tftp: bootflash: Address or name of remote host []? &lt;management_SERVER A_mgmtVLAN_ip_address&gt;  Source filename []? &lt;New_IOS_image_file&gt;  Destination filename [&lt;New_IOS_image_file&gt;]? &lt;ENTER&gt;  Press &lt;Enter&gt; here, you do NOT want to change the filename  Accessing tftp://&lt;management_SERVER B_mgmtVLAN_ip address&gt;/&lt;IOS_image_file&gt;... Loading &lt;IOS_image_file&gt; from &lt;SERVER A_mgmtVLAN_ip_address&gt; (via Vlan2): !!! !!!!!!!!!!!!!!!!!!!!!!!!!!!!!! [OK - 45606 bytes]  45606 bytes copied in 3.240 secs (140759 bytes/sec)</pre>
32.	<b>switch1B:</b> Locate old IOS image to be removed	<pre>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)</pre> <p><b>NOTE:</b> 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 &lt;OLD_IOS_image&gt;</p>
33.	<b>switch1B:</b> Remove old IOS image	<pre>Switch# delete /force /recursive bootflash:&lt;OLD_IOS_image&gt; Switch#</pre>
34.	<b>switch1B:</b> Locate old IOS image to be removed	<pre>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)</pre> <p>Here, you should see only the IOS version you uploaded.</p>

## Procedure 19. Cisco 4948E-F IOS Upgrade (SDS Sites)

Step	Procedure	Result
35. <input type="checkbox"/>	<b>Switch1B:</b>  Reset switch back to factory defaults by deleting the VLANs.	<pre>Switch#<b>write erase</b> Erasing the nvram filesystem will remove all configuration files! Continue? [confirm] &lt;ENTER&gt; [OK] Erase of nvram: complete Switch# *Jan 26 12:53:06.547: %SYS-7-NV_BLOCK_INIT: Initialized the geometry of nvram Switch#<b>config t</b> Enter configuration commands, one per line. End with CNTL/Z. Switch(config)#<b>no vlan 2-1024</b> %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)#<b>config-register 0x2101</b> Switch(config)#<b>end</b> Switch#</pre>
36. <input type="checkbox"/>	<b>switch1B:</b>  Reload the switch	<pre>Switch# <b>reload</b> Proceed with reload? [confirm] &lt;ENTER&gt; System config modified. save? [<b>yes/no</b>]:<b>no</b>  ! WARNING !: It is extremely important to answer "no" to the above "Save?" option.  Proceed with reload? [confirm] &lt;ENTER&gt;</pre>
37. <input type="checkbox"/>	<b>switch1B:</b>  Wait until the switch is reloaded, then confirm the correct IOS image	<pre>Switch&gt; <b>show version   include image</b> System image file is "bootflash:cat4500-entservicesk9-mz.122- 54.WO.bin" Switch&gt;</pre>
38. <input type="checkbox"/>	<b>switch1B:</b>  Enter enable mode	<pre>Switch&gt; <b>enable</b> Switch#</pre>
39. <input type="checkbox"/>	<b>switch1B:</b>  Locate old IOS image to be removed	<pre>Switch# <b>dir bootflash:</b> 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.</pre>
40. <input type="checkbox"/>	<b>switch1A:</b>  Exit the switch1A console session.	<pre>Switch# &lt;<b>CTRL-e&gt;&lt;c&gt;&lt;.</b>&gt;</pre> <p style="text-align: center;"><b>Hot Key sequence:</b> Ctrl-E, C, period</p>

## Procedure 19. Cisco 4948E-F IOS Upgrade (SDS Sites)

Step	Procedure	Result
41.	<b>SERVER A:</b>  Re-enable the bond0.2 interface to switch1A.	On SERVER A ensure that the both bond0.2 interfaces are up:  For GEN8:  \$ sudo ifup eth11 \$ sudo ifup eth01  For GEN9:  \$ sudo ifup eth02 \$ sudo ifup eth01
42.	Close firewall	\$ 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
43.	<b>SERVER A:</b>  Stop the "tftp" service.	\$ tpdProvD --client --noxml --ns=Xinetd stopXinetdService service tftp  Login on Remote: <b>platcfg</b>  Password of platcfg: <platcfg_password>  1
44.		Return to Appendix D-2
<b>THIS PROCEDURE HAS BEEN COMPLETED</b>		

## D-4. Cisco 4948E-F Configuration Backup (All SDS NOAM sites)

Variable	Value
<switch_backup_user> (also needed in switch configuration procedure)	
<switch_backup_user_password> (also needed in switch configuration procedure)	
<switch_name>	hostname of the switch
<switch_backup_directory>	/usr/TKLC/plat/etc/switch/backup

## Procedure 20. Cisco 4948E-F Backup (SDS Sites)

Step	Procedure	Result
1. <input type="checkbox"/>	<b>SERVER A:</b> Access the <b>SERVER A</b> console.	Connect to the <b>SERVER A</b> console using one of the access methods described in <b>Section 2.3</b> .
2. <input type="checkbox"/>	<b>SERVER A:</b> Log into server as the "admusr" user.	login: <b>admusr</b> Using keyboard-interactive authentication. Password: <b>&lt;admusr_password&gt;</b>
3. <input type="checkbox"/>	<b>SERVER A:</b> Verify hostname of the switch1A	\$ <b>sudo netConfig --device=&lt;switch_name&gt; getHostname</b> Hostname: switch1A  <b>Note:</b> The value beside "Hostname:" should be the same as the <switch_name> variable
4. <input type="checkbox"/>	<b>SERVER A:</b> Verify SSH service	\$ <b>sudo netConfig --repo showService name=ssh_service</b> Service Name: ssh_service Type: ssh Host: 169.254.1.11 Options: password: 615EBD88232A2EFD0080AC990393083D user: admusr
5. <input type="checkbox"/>	<b>SERVER A:</b> Run backup command	\$ <b>sudo netConfig --device=&lt;switch_name&gt; backupConfiguration service=ssh_service filename=&lt;switch_name&gt;-backup</b>
6. <input type="checkbox"/>	<b>SERVER A:</b> Verify backup and inspect its contents to ensure they reflect the configured values	\$ <b>ls /home/admusr/&lt;switch_name&gt;-backup*</b>  Example Output: /home/admusr/switch1A-backup /home/admusr/switch1A-backup.info  \$ \$ <b>cat /home/admusr/&lt;switch_name&gt;-backup</b>  Verify that the backup information looks correct.
7. <input type="checkbox"/>	Repeat steps 3-6 for switch1B.	
8. <input type="checkbox"/>	<b>SERVER A:</b> Copy the switch1A and switch1B backup files to the permanent backup storage directory	\$ <b>sudo cp -p /home/admusr/switch*-backup*/ /usr/TKLC/plat/etc/switch/backup/</b>  ls -al /usr/TKLC/plat/etc/switch/backup/ [admusr@hostnameecf48ffaf1d812 xml]\$ ls -al -rw----- 1 admusr admgrp 7368 Mar 1 10:37 switch1A-backup -rw----- 1 admusr admgrp 88 Mar 1 10:37 switch1A-backup.info -rw----- 1 admusr admgrp 7368 Mar 1 10:37 switch1B-backup -rw----- 1 admusr admgrp 88 Mar 1 10:37 switch1B-backup.info

## Procedure 20. Cisco 4948E-F Backup (SDS Sites)

Step	Procedure	Result
9. <input type="checkbox"/>	<b>SERVER A:</b> Delete switch1A and switch1B backup files from the admusr directory	\$ sudo rm /home/admusr/*backup*
<b>THIS PROCEDURE HAS BEEN COMPLETED</b>		

## 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"> <li>• <b>THE HIGHLIGHTED VALUES IN EACH TABLE MUST BE UPDATED BY THE USER FOR EACH NETWORK ELEMENT (SITE).</b></li> </ul>
--	--

**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 **MGMT\_VLAN** 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 **MGMT\_VLAN** 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 **MGMT\_VLAN** (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"?>	
<neteriskelement>	
<name> <b>NO_RLGHNC</b> </name>	[Range = 1-32 character string] – Must be alphanumeric or underscore.
<networks>	
<network>	
<name> <b>MGMT_VLAN</b> </name>	Name of customer management network. <b>Note:</b> Do NOT change this name.
<vlanId> <b>2</b> </vlanId>	[Range = 2-4094.] – The VLAN ID to use for this VLAN.
<ip> <b>169.254.1.0</b> </ip>	[Range = A valid IP address] – The network address of this VLAN
<mask> <b>255.255.255.0</b> </mask>	Subnetting to apply to servers within this VLAN
</network>	
<network>	
<name> <b>XMI</b> </name>	Name of customer external network. <b>Note:</b> Do NOT change this name.
<vlanId> <b>3</b> </vlanId>	[Range = 2-4094.] – The VLAN ID to use for this VLAN.
<ip> <b>10.250.55.0</b> </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> <b>255.255.255.0</b> </mask>	Must be the same as the associated DSR NE XMI netmask within the same SOAM enclosure.
<gateway> <b>10.250.55.1</b> </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> <b>IMI</b> </name>	Name of customer internal network. <b>Note:</b> Do NOT change this name.
<vlanId> <b>4</b> </vlanId>	[Range = 2-4094.] – The VLAN ID to use for this VLAN.
<ip> <b>169.254.100.0</b> </ip>	[Range = A valid IP address] – This network must be the same as the DSR IMI network subnet within the SOAM enclosure.
<mask> <b>255.255.255.0</b> </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>	
</neteriskelement>	

Table 5 – SDS Network Element Configuration File (IPv6)

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

## Appendix F. NetBackup Client Installation

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

### Procedure 21. NetBackup Client Installation

<b>Step</b>	<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>	
1. <input type="checkbox"/>	Install <b>Netbackup</b> Client Software	<p>Execute Section 3.10.5 <i>Application NetBackup Client Procedures</i> of reference [7] to complete this step.</p> <p><b>NOTE:</b> If installing Netbackup client software, it must be installed and configured on all SDS servers (Primary SDS and DR SDS servers only).</p> <p><b>NOTE:</b> 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 style="color: blue; font-style: italic;">/usr/TKLC/appworks/sbin/bpstart_notify</p> <p style="color: blue; font-style: italic;">/usr/TKLC/appworks/sbin/bpend_notify</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 style="color: blue; font-style: italic;">ln -s &lt;path&gt;/bpstart_notify /usr/openv/netbackup/bin/bpstart_notify</p> <p style="color: blue; font-style: italic;">ln -s &lt;path&gt;/bpend_notify /usr/openv/netbackup/bin/bpend_notify</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 style="color: blue; font-style: italic;">iptables -L 60sds-INPUT -n   grep 1556</p> <p>If there is no output, then enable the port 1556 for NetBackup on IPv4:</p> <p style="color: blue; font-style: italic;">iptablesAdm append --type=rule --protocol=ipv4 --domain=60sds --table=filter --chain=INPUT --match=' -m state --state NEW -m tcp -p tcp --dport 1556 -j ACCEPT' --persist=yes</p>
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 style="color: blue; font-style: italic;">ip6tables -L 60sds-INPUT -n   grep 1556</p> <p>If there is no output, then enable the port 1556 for NetBackup on IPv6 protocol:</p> <p style="color: blue; font-style: italic;">iptablesAdm append --type=rule --protocol=ipv6 --domain=60sds --table=filter --chain=INPUT --match=' -m state --state NEW -m tcp -p tcp --dport 1556 -j ACCEPT' --persist=yes</p>

## Appendix G. List of Frequently Used Time Zones

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

**Table 6 – List of Selected Time Zone Values**

Time Zone Value	Description	Universal Time Code (UTC) Offset
America/New_York	Eastern Time	UTC-05
America/Chicago	Central Time	UTC-06
America/Denver	Mountain Time	UTC-07
America/Phoenix	Mountain Standard Time — Arizona	UTC-07
America/Los Angeles	Pacific Time	UTC-08
America/Anchorage	Alaska Time	UTC-09
Pacific/Honolulu	Hawaii	UTC-10
Africa/Johannesburg		UTC+02
America/Mexico City	Central Time — most locations	UTC-06
Africa/Monrovia		UTC+00
Asia/Tokyo		UTC+09
America/Jamaica		UTC-05
Europe/Rome		UTC+01
Asia/Hong Kong		UTC+08
Pacific/Guam		UTC+10
Europe/Athens		UTC+02
Europe/London		UTC+00
Europe/Paris		UTC+01
Europe/Madrid	mainland	UTC+01
Africa/Cairo		UTC+02
Europe/Copenhagen		UTC+01
Europe/Berlin		UTC+01
Europe/Prague		UTC+01
America/Vancouver	Pacific Time — west British Columbia	UTC-08
America/Edmonton	Mountain Time — Alberta, east British Columbia & west Saskatchewan	UTC-07
America/Toronto	Eastern Time — Ontario — most locations	UTC-05
America/Montreal	Eastern Time — Quebec — most locations	UTC-05
America/Sao Paulo	South & Southeast Brazil	UTC-03
Europe/Brussels		UTC+01
Australia/Perth	Western Australia — most locations	UTC+08
Australia/Sydney	New South Wales — most locations	UTC+10
Asia/Seoul		UTC+09

Time Zone Value	Description	Universal Time Code (UTC) Offset
Africa/Lagos		UTC+01
Europe/Warsaw		UTC+01
America/Puerto Rico		UTC-04
Europe/Moscow	Moscow+00 — west Russia	UTC+04
Asia/Manila		UTC+08
Atlantic/Reykjavik		UTC+00
Asia/Jerusalem		UTC+02

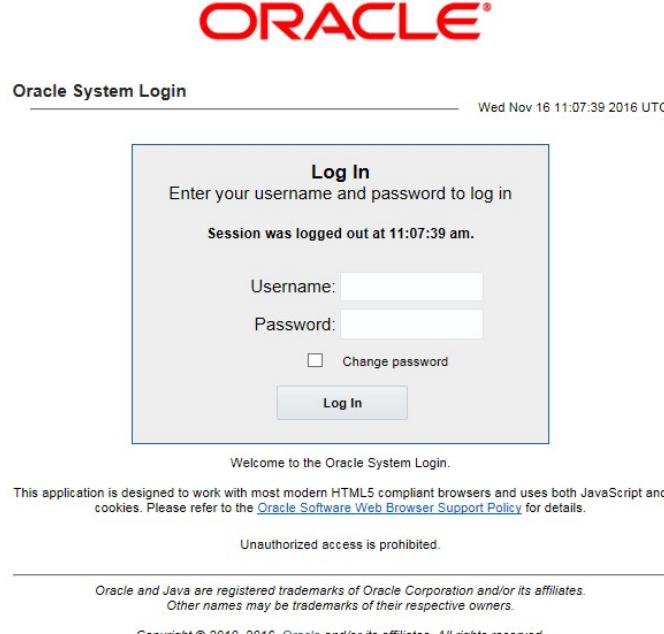
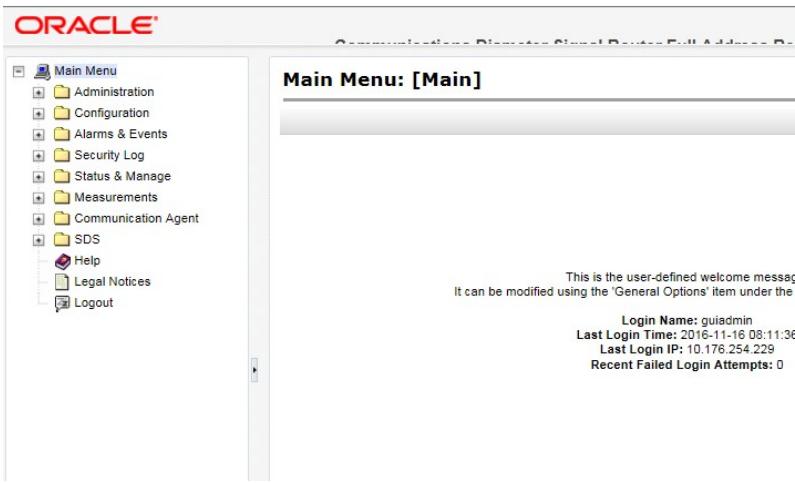
## Appendix H. Accepting Installation Through SDS NOAM GUI

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

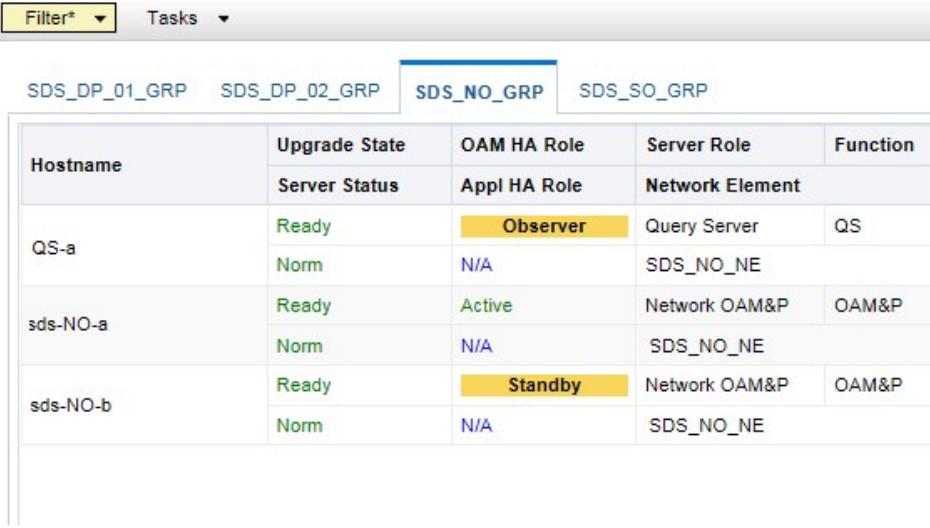
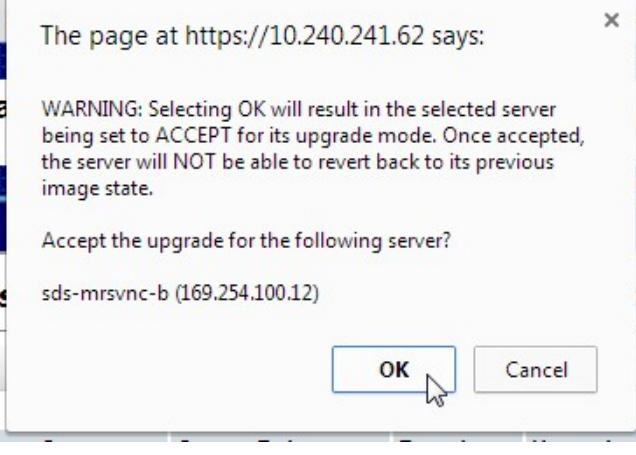
### Procedure 22. Accepting Installation Through SDS NOAM GUI

Step	Procedure	Result
1.	<p><b>Primary SDS VIP:</b>  <input type="checkbox"/> Launch an approved web browser and connect to the <b>XMI Virtual IP Address (VIP)</b> of the <b>Active SDS site</b></p> <p><b>NOTE:</b> <i>If presented with the “security certificate” warning screen shown to the right, choose the following option: “Continue to this website (not recommended)”.</i></p>	 <p>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:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Click here to close this webpage.</li> <li><input type="checkbox"/> Continue to this website (not recommended).</li> <li><input type="checkbox"/> More information</li> </ul>

## Procedure 22. Accepting Installation Through SDS NOAM GUI

Step	Procedure	Result
2.	<p><b>Primary SDS VIP:</b></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>Wed Nov 16 11:07:39 2016 UTC</p> <p><b>Log In</b> Enter your username and password to log in</p> <p>Session was logged out at 11:07:39 am.</p> <p>Username: <input type="text"/></p> <p>Password: <input type="password"/></p> <p><input type="checkbox"/> Change password</p> <p><b>Log In</b></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 <a href="#">Oracle Software Web Browser Support Policy</a> 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, <a href="#">Oracle</a> and/or its affiliates. All rights reserved.</p>
3.	<p><b>Primary SDS VIP:</b></p> <p><input type="checkbox"/> The user should be presented the SDS Main Menu as shown on the right.</p>	 <p>ORACLE®</p> <p>Main Menu: [Main]</p> <p>Main Menu</p> <ul style="list-style-type: none"> <li>Main Menu</li> <li>Administration</li> <li>Configuration</li> <li>Alarms &amp; Events</li> <li>Security Log</li> <li>Status &amp; Manage</li> <li>Measurements</li> <li>Communication Agent</li> <li>SDS</li> <li>Help</li> <li>Legal Notices</li> <li>Logout</li> </ul> <p>This is the user-defined welcome message. It can be modified using the 'General Options' item under the</p> <p>Login Name: guiaadmin Last Login Time: 2016-11-16 08:11:36 Last Login IP: 10.176.254.229 Recent Failed Login Attempts: 0</p>

## Procedure 22. Accepting Installation Through SDS NOAM GUI

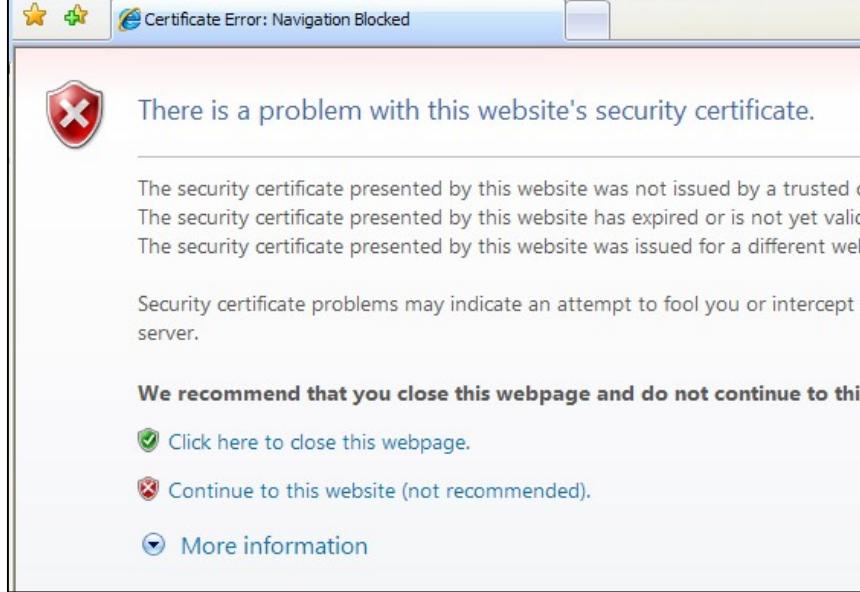
Step	Procedure	Result																																				
4.	<p><b>Primary SDS VIP:</b></p> <p><input type="checkbox"/> Using the cursor <b>left-click</b>, select the row containing the Server(s) for which you would like to “Accept” upgrade.</p> <p><b>NOTE:</b> <i>Multi-select is available by holding down the “CTRL” key while using the cursor to left-click multiple rows.</i></p>	<p><b>Main Menu: Administration -&gt; Software Management -&gt; Upgrade</b></p>  <table border="1"> <thead> <tr> <th rowspan="2">Hostname</th> <th>Upgrade State</th> <th>OAM HA Role</th> <th>Server Role</th> <th>Function</th> </tr> <tr> <th>Server Status</th> <th>Appl HA Role</th> <th colspan="2">Network Element</th> </tr> </thead> <tbody> <tr> <td rowspan="2">QS-a</td> <td>Ready</td> <td>Observer</td> <td>Query Server</td> <td>QS</td> </tr> <tr> <td>Norm</td> <td>N/A</td> <td>SDS_NO_NE</td> <td></td> </tr> <tr> <td rowspan="2">sds-NO-a</td> <td>Ready</td> <td>Active</td> <td>Network OAM&amp;P</td> <td>OAM&amp;P</td> </tr> <tr> <td>Norm</td> <td>N/A</td> <td>SDS_NO_NE</td> <td></td> </tr> <tr> <td rowspan="2">sds-NO-b</td> <td>Ready</td> <td>Standby</td> <td>Network OAM&amp;P</td> <td>OAM&amp;P</td> </tr> <tr> <td>Norm</td> <td>N/A</td> <td>SDS_NO_NE</td> <td></td> </tr> </tbody> </table>	Hostname	Upgrade State	OAM HA Role	Server Role	Function	Server Status	Appl HA Role	Network Element		QS-a	Ready	Observer	Query Server	QS	Norm	N/A	SDS_NO_NE		sds-NO-a	Ready	Active	Network OAM&P	OAM&P	Norm	N/A	SDS_NO_NE		sds-NO-b	Ready	Standby	Network OAM&P	OAM&P	Norm	N/A	SDS_NO_NE	
Hostname	Upgrade State	OAM HA Role		Server Role	Function																																	
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	Norm	N/A	SDS_NO_NE																																			
sds-NO-b	Ready	Standby	Network OAM&P	OAM&P																																		
	Norm	N/A	SDS_NO_NE																																			
5.	<p><b>Primary SDS VIP:</b></p> <p><input type="checkbox"/> Using the cursor <b>left-click</b>, select the “Accept” dialogue button.</p>																																					
6.	<p><b>Primary SDS VIP:</b></p> <p><input type="checkbox"/> The user is presented with a dialogue box stating that the “Accept Upgrade” action is <b>irreversible</b> and locks the Server on the current software release (i.e. <i>Backout to the previous release is no longer allowed</i>).</p> <p>If the user wishes to continue, use the cursor <b>left-click</b> to select the “OK” dialogue button.</p>																																					
<b>THIS PROCEDURE HAS BEEN COMPLETED</b>																																						

## Appendix I. Disable Hyperthreading for GEN8 and GEN9 (DP Only)

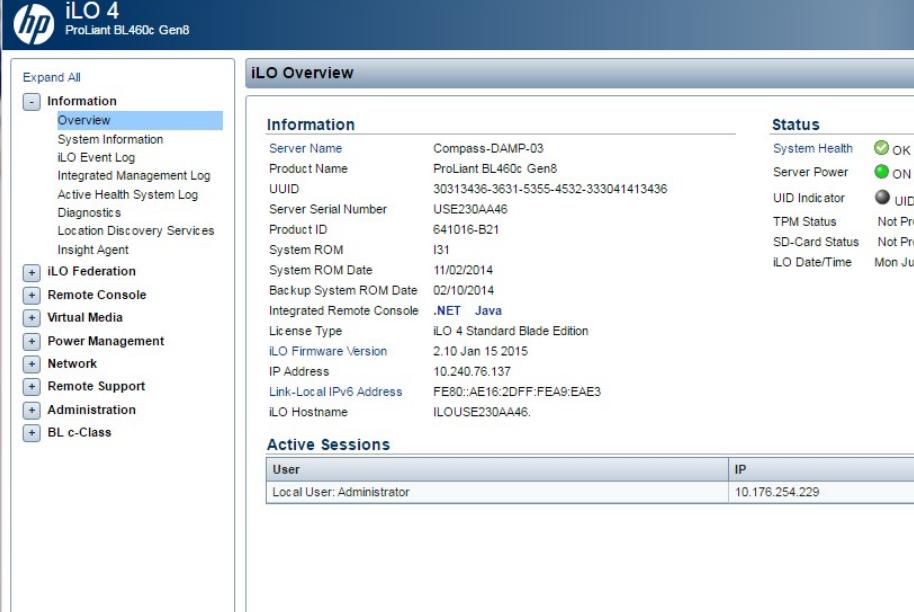
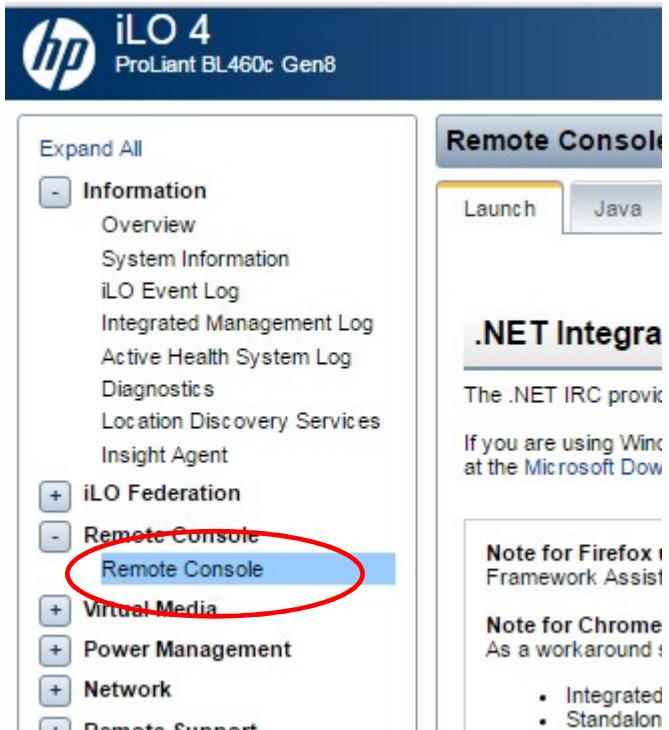
### Procedure 23. GEN8: Disable Hyerthreading (DP Only)

Step	Procedure	Result
1. <input type="checkbox"/>	<b>DP Server XMI IP (SSH):</b>  Access the command prompt via DP blade's <b>XMI IP</b> address and log into the server as the " <b>admusr</b> " user.	login: <b>admusr</b> Password: <b>&lt;admusr_password&gt;</b>
2. <input type="checkbox"/>	<b>DP Server XMI IP (SSH):</b>  Execute " <b>hpasmcli</b> " command to determine status of hyperthreading for the DP blade.	\$ sudo <b>hpasmcli -s "show ht"</b>  Processor hyper-threading is currently enabled.  <b>NOTE:</b> Output returned may state " <b>enabled</b> " or " <b>disabled</b> ".
3. <input type="checkbox"/>	 <ul style="list-style-type: none"> <li>If output from <b>Step 2</b> shows that hyperthreading is currently "<b>enabled</b>", then continue with <b>Step 4</b> of this procedure.</li> <li>If output from <b>Step 2</b> shows that hyperthreading is currently "<b>disabled</b>", then <b>STOP</b> and restart <b>Appendix Procedure 23</b> for the next installed <b>DP</b> blade.</li> </ul>	
4. <input type="checkbox"/>	<p>Launch the Internet Explorer web browser and connect to the <b>DP-iLO</b> GUI interface.</p> <p><b>NOTE:</b> Always use <b>https://</b> for <b>iLO GUI</b> access.</p>	 <p><b>!!! WARNING !!!</b></p> <p><b>Verify the DP-iLO IP address before proceeding. The user must login using the DP-iLO IP address only.</b></p>

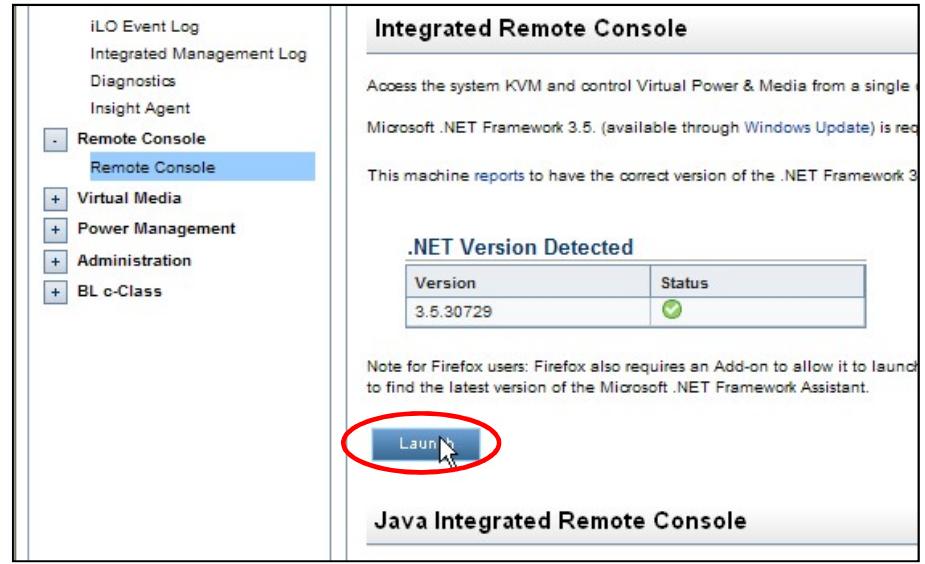
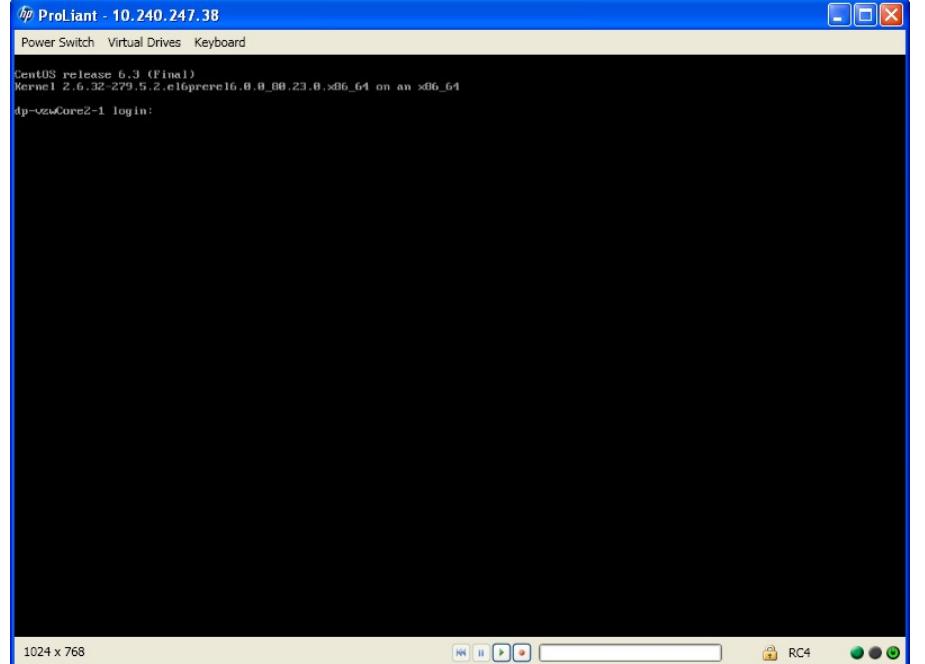
## Procedure 23. GEN8: Disable Hyperthreading (DP Only)

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

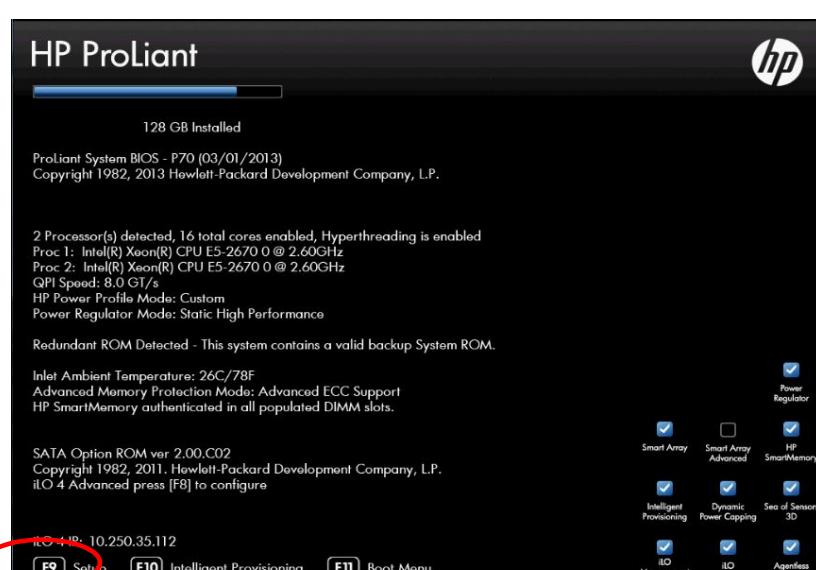
## Procedure 23. GEN8: Disable Hyperthreading (DP Only)

Step	Procedure	Result
7.	<p><input type="checkbox"/> The admin GUI is displayed.</p> <p>Select the “<b>Remote Console</b>” tab in the upper left corner of the GUI.</p>	
8.	<p><input type="checkbox"/> The Remote Console Information GUI is displayed</p> <p>Click on the “<b>Remote Console</b>” menu option</p>	

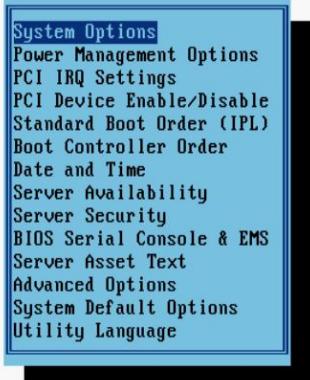
## Procedure 23. GEN8: Disable Hyperthreading (DP Only)

Step	Procedure	Result				
9.	<p>Under the “<b>Integrated Remote Console</b>” section in the top of the right panel, click on the “<b>Launch</b>” dialogue button.</p> <p><b>NOTE:</b> Answer “<b>Yes/OK</b>” to any pop-up windows that might appear.</p>	 <p><b>Integrated Remote Console</b></p> <p>Access the system KVM and control Virtual Power &amp; 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</p> <p><b>.NET Version Detected</b></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><b>Java Integrated Remote Console</b></p>	Version	Status	3.5.30729	✓
Version	Status					
3.5.30729	✓					
10.	<p>The iLO Console window is displayed.</p> <p><b>NOTE:</b> The console window resembles an MS-DOS window but DOES NOT have a scroll-back buffer.</p>					
11.	<p><b>DP Server XMI IP (SSH):</b></p> <p>Access the command prompt via DP blade's XMI IP address and log into the server as the “<b>admusr</b>” user.</p>	<p>login: <b>admusr</b></p> <p>Password: <b>&lt;admusr_password&gt;</b></p>				

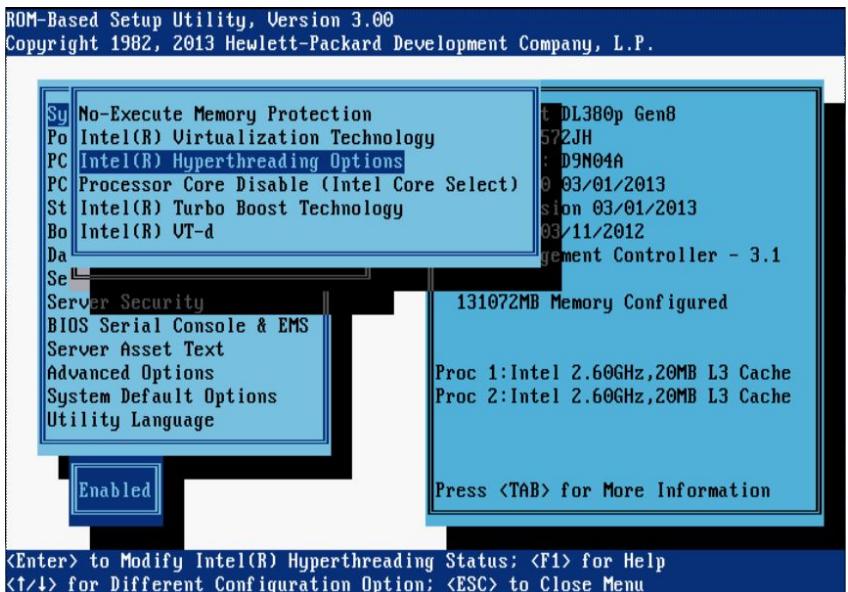
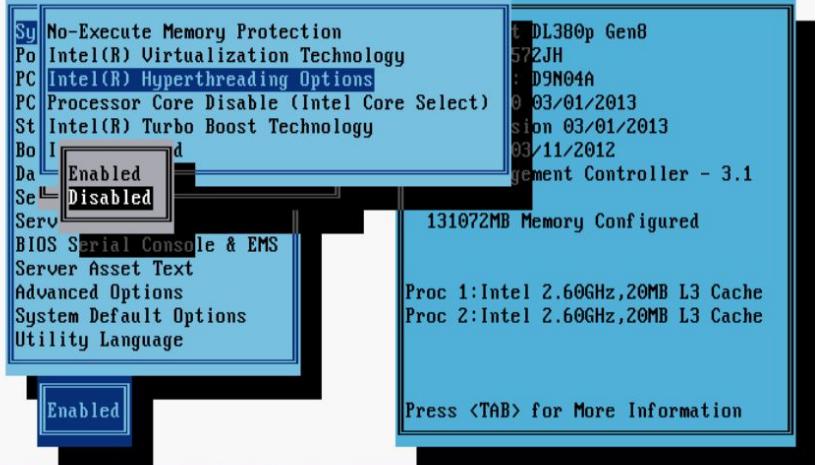
## Procedure 23. GEN8: Disable Hyperthreading (DP Only)

Step	Procedure	Result
12.	<p>Reboot the server.</p> <p>This can be achieved by logging in as the “ ” user and executing <b>init 6</b> command at the command prompt.</p>	<pre>\$ sudo init 6</pre> <p><b>NOTE:</b> It is normal for the Remote Console window to stay blank for up to 3 minutes before initial output appears.</p>
13.	Access the Server BIOS by pressing <b>F9</b> 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 <b>F9=Setup</b> in the lower left corner of the screen, press <b>[F9]</b> to access the BIOS setup screen. You may be required to press <b>[F9]</b> 2-3 times. The F9=Setup will change to F9 Pressed once it is accepted. See example below.</p>  <p><b>Expected Result:</b> ROM-Based Setup Utility is accessed and the ROM-Based Setup Utility menu will be displayed.</p> <p><b>NOTE:</b> 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>

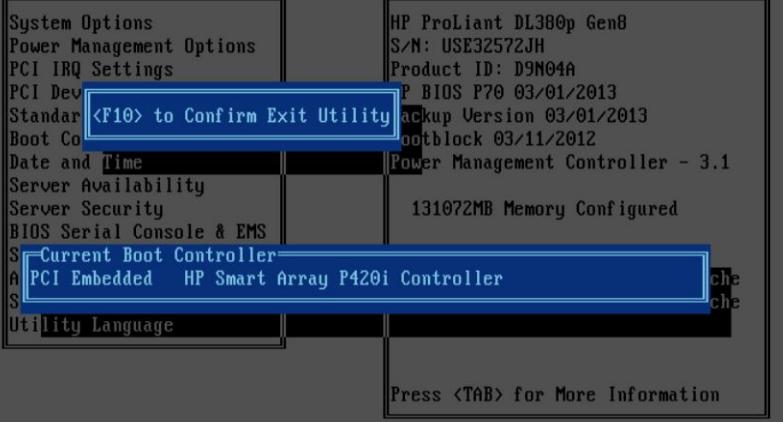
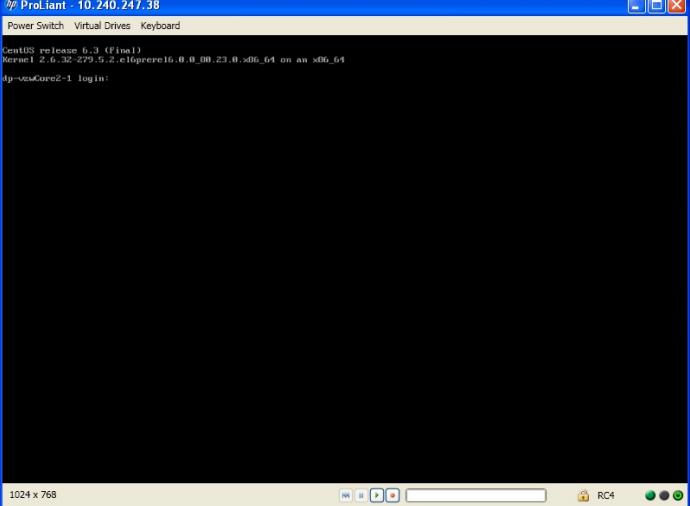
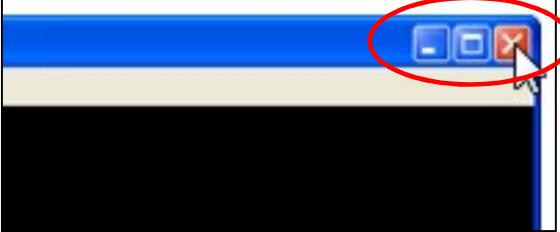
## Procedure 23. GEN8: Disable Hyperthreading (DP Only)

Step	Procedure	Result
14.	Select System Options	<p>Scroll to <b>System Options</b> and press [ENTER]</p> <p><b>ROM-Based Setup Utility, Version 3.00</b> Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</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  Press &lt;TAB&gt; for More Information</p> <p>&lt;Enter&gt; to View/Modify System Specific Options &lt;↑/↓&gt; for Different Selection: &lt;TAB&gt; for More Info; &lt;ESC&gt; to Exit Utility</p>
15.	Select Processor Options	<p>Select <b>Processor Options</b> option and press [ENTER]</p> <p><b>ROM-Based Setup Utility, Version 3.00</b> Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</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  Press &lt;TAB&gt; for More Information</p> <p>&lt;Enter&gt; to Display Processor Specific Options &lt;↑/↓&gt; for Different Configuration Option: &lt;ESC&gt; to Close Menu</p>

## Procedure 23. GEN8: Disable Hyperthreading (DP Only)

Step	Procedure	Result
16.	Select Hyperthreading Options	<p>Select <b>Intel® Hyperthreading Options</b> 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 <b>Intel(R) Hyperthreading Options</b> Processor Core Disable (Intel Core Select) Intel(R) Turbo Boost Technology Intel(R) VT-d Server Security BIOS Serial Console &amp; EMS Server Asset Text Advanced Options System Default Options Utility Language</p> <p>Enabled</p> <p>131072MB Memory Configured Proc 1: Intel 2.60GHz, 20MB L3 Cache Proc 2: Intel 2.60GHz, 20MB L3 Cache</p> <p>Press &lt;TAB&gt; for More Information</p> <p>&lt;Enter&gt; to Modify Intel(R) Hyperthreading Status; &lt;F1&gt; for Help &lt;↑/↓&gt; for Different Configuration Option; &lt;ESC&gt; to Close Menu</p>
17.	Set hyperthreading to <b>Disabled</b> .	<p>Select <b>Disabled</b> 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 <b>Intel(R) Hyperthreading Options</b> Processor Core Disable (Intel Core Select) Intel(R) Turbo Boost Technology Intel(R) VT-d <b>Disabled</b> Server Security BIOS Serial Console &amp; EMS Server Asset Text Advanced Options System Default Options Utility Language</p> <p>Enabled</p> <p>131072MB Memory Configured Proc 1: Intel 2.60GHz, 20MB L3 Cache Proc 2: Intel 2.60GHz, 20MB L3 Cache</p> <p>Press &lt;TAB&gt; for More Information</p> <p>&lt;↑/↓&gt; Changes Configuration Selection &lt;Enter&gt; Saves Selection; &lt;ESC&gt; to Cancel</p>

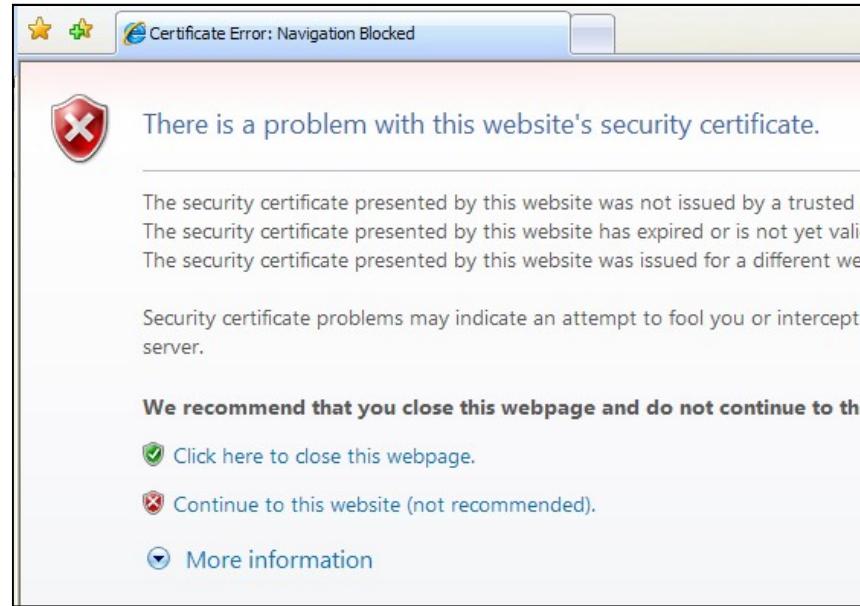
## Procedure 23. GEN8: Disable Hyperthreading (DP Only)

Step	Procedure	Result
18.	<p>Save Configuration and Exit.</p> <p><b>NOTE:</b> <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 <b>[F10]</b> to save the configuration and exit. The server will reboot</p> <p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p>  <p><b>Standar</b> &lt;F10&gt; to Confirm Exit Utility</p> <p>HP ProLiant DL380p Gen8 S/N: USE32572JH Product ID: D9M04A P BIOS P70 03/01/2013 Backup Version 03/01/2013 Bootblock 03/11/2012 Power Management Controller - 3.1</p> <p>System Options Power Management Options PCI IRQ Settings PCI Dev Standar Boot Co Date and Time Server Availability Server Security BIOS Serial Console &amp; EMS Current Boot Controller PCI Embedded HP Smart Array P420i Controller Utility Language</p> <p>131072MB Memory Configured</p> <p>Press &lt;TAB&gt; for More Information</p> <p>&lt;F10&gt; to Exit Utility Any Other Key to Return to Main Menu</p>
19.	Continue to monitor the server boot process until the screen returns to the login prompt.	
20.	Close the Remote Console window.	
<b>THIS PROCEDURE HAS BEEN COMPLETED</b>		

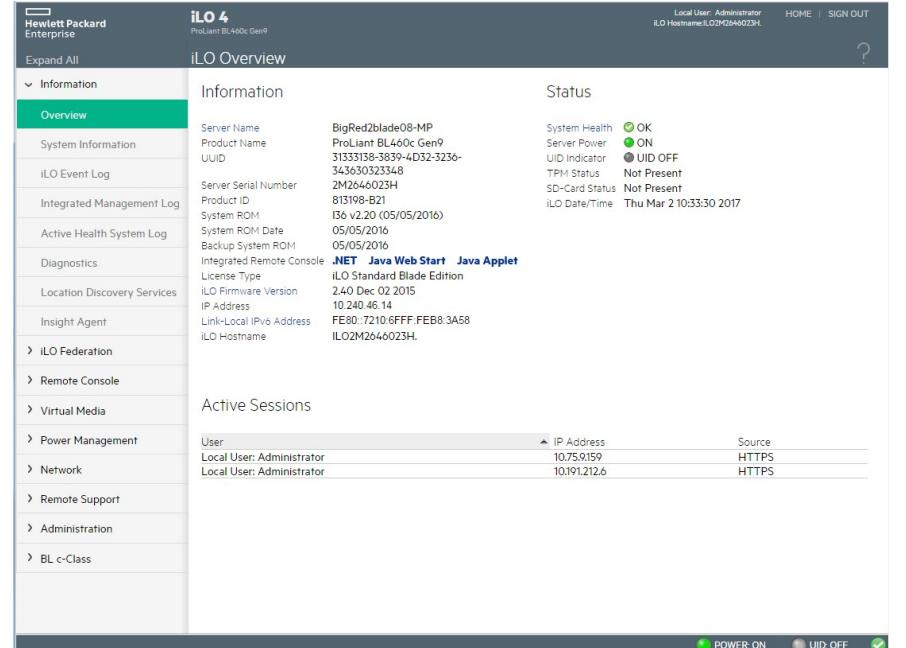
**Procedure 24. GEN9: Disable Hyperthreading (DP Only)**

Step	Procedure	Result
1. <input type="checkbox"/>	<b>DP Server XMI IP (SSH):</b> Access the command prompt via DP blade's <b>XMI IP</b> address and log into the server as the "admusr" user.	login: <b>admusr</b> Password: <b>&lt;admusr_password&gt;</b>
2. <input type="checkbox"/>	<b>DP Server XMI IP (SSH):</b> Execute "hpasmcli" command to determine status of hyperthreading for the DP blade.	\$ sudo <b>hpasmcli -s "show ht"</b>  Processor hyper-threading is currently enabled.  <b>NOTE:</b> Output returned may state " <b>enabled</b> " or " <b>disabled</b> ".
3. <input type="checkbox"/>		<ul style="list-style-type: none"> <li>If output from <b>Step 2</b> shows that hyperthreading is currently "<b>enabled</b>", then continue with <b>Step 4</b> of this procedure.</li> <li>If output from <b>Step 2</b> shows that hyperthreading is currently "<b>disabled</b>", then <b>STOP</b> and restart <b>Appendix</b> Procedure 24 for the next installed <b>DP</b> blade.</li> </ul>
4. <input type="checkbox"/>	Launch the Internet Explorer web browser and connect to the <b>DP-iLO</b> GUI interface.  <b>NOTE:</b> Always use <i>https://</i> for iLO GUI access.	 <b>!!! WARNING !!!</b> <i>Verify the DP-iLO IP address before proceeding. The user must login using the DP-iLO IP address only.</i>

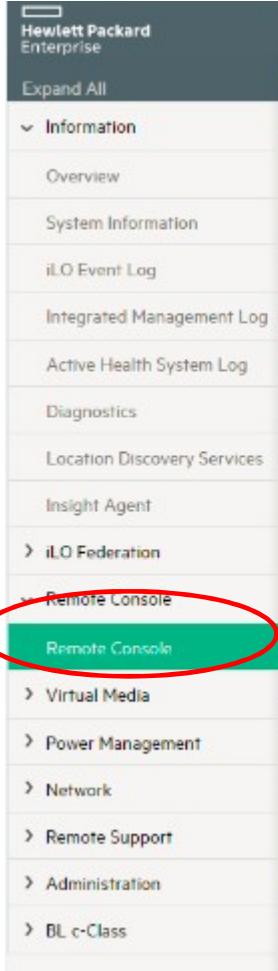
## Procedure 24. GEN9: Disable Hyperthreading (DP Only)

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

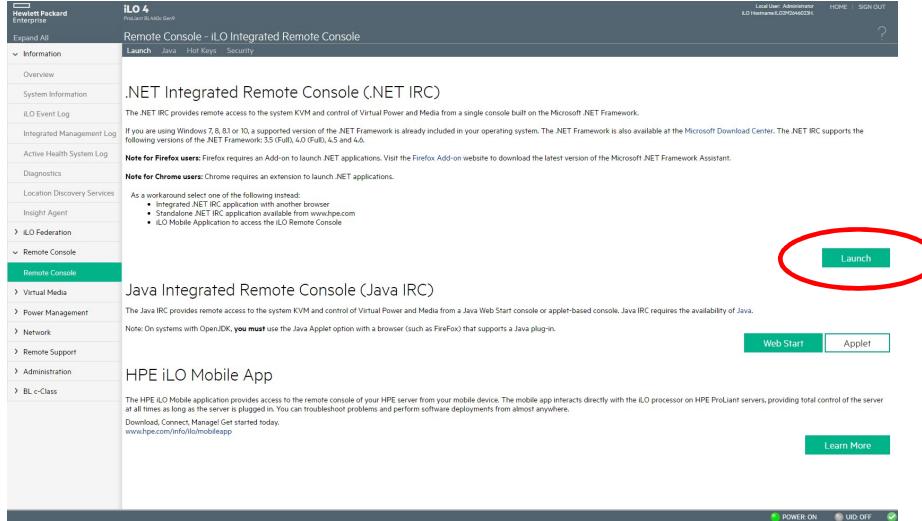
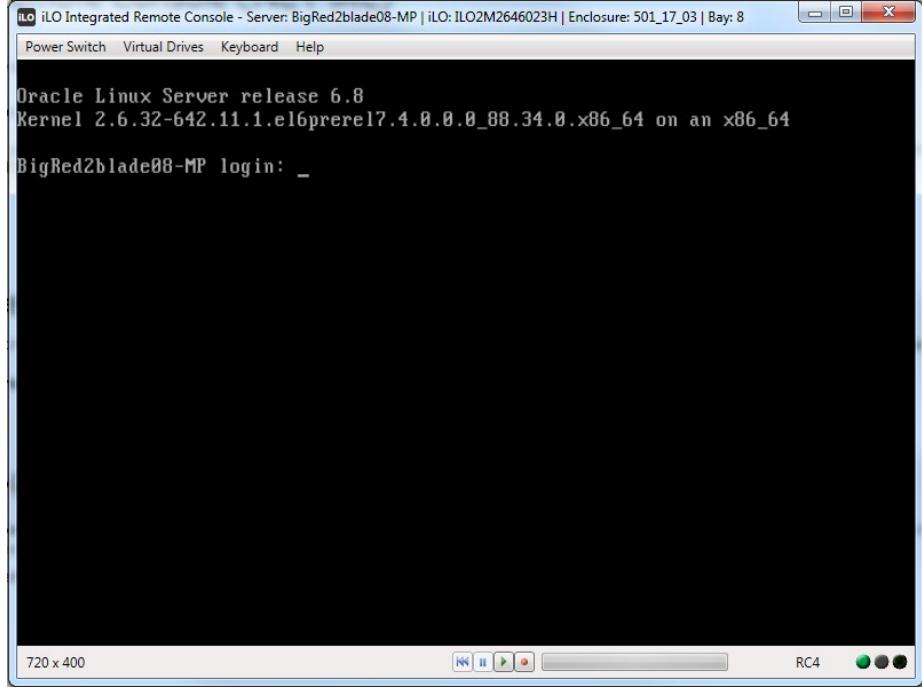
## Procedure 24. GEN9: Disable Hyperthreading (DP Only)

Step	Procedure	Result
7. <input type="checkbox"/>	<p>The admin GUI is displayed.</p> <p>Select the “<b>Remote Console</b>” tab in the upper left corner of the GUI.</p>	

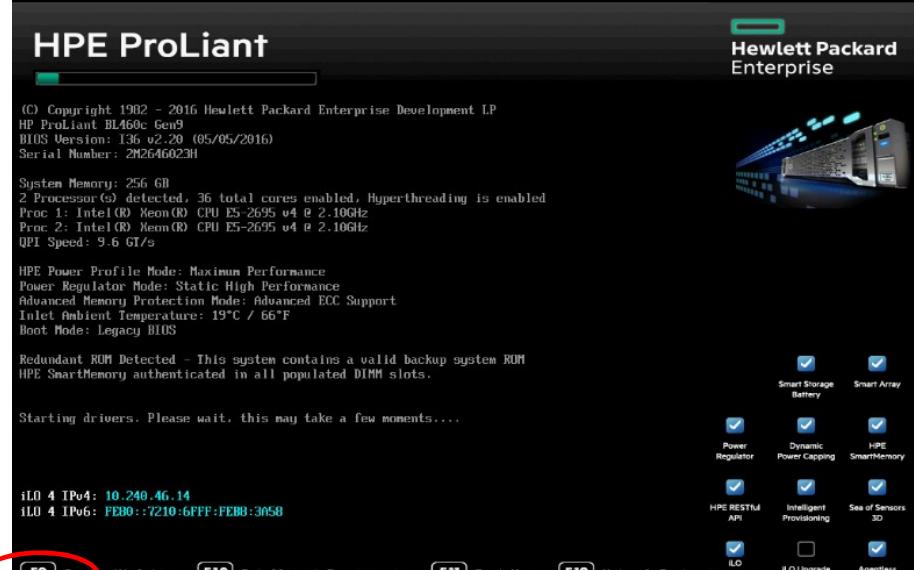
## Procedure 24. GEN9: Disable Hyperthreading (DP Only)

Step	Procedure	Result
8. <input type="checkbox"/>	<p>The Remote Console Information GUI is displayed</p> <p>Click on the <b>“Remote Console”</b> menu option</p>	 <p><b>iLO 4</b> ProLiant BL460c Gen9</p> <p>Remote Console - iLO Integrated</p> <p>Launch Java Hot Keys Security</p> <p><b>.NET Integrated Remote Console</b></p> <p>The .NET IRC provides remote access to the server using the .NET Framework.</p> <p>If you are using Windows 7, 8, 8.1 or 10, a supported version of the .NET Framework is required.</p> <p><b>Note for Firefox users:</b> Firefox requires an add-on to enable remote access.</p> <p><b>Note for Chrome users:</b> Chrome requires an add-on to enable remote access.</p> <p>As a workaround select one of the following:</p> <ul style="list-style-type: none"> <li>• Integrated .NET IRC application with Java support</li> <li>• Standalone .NET IRC application with Java support</li> <li>• iLO Mobile Application to access the server using Java support</li> </ul> <p><b>Java Integrated Remote Console</b></p> <p>The Java IRC provides remote access to the server using Java support.</p> <p><b>Note:</b> On systems with OpenJDK, you must:</p> <ul style="list-style-type: none"> <li>• Set the environment variable <code>DISPLAY</code> to the IP address of the server.</li> <li>• Set the environment variable <code>java.awt.headless</code> to <code>true</code>.</li> </ul> <p><b>HPE iLO Mobile Application</b></p> <p>The HPE iLO Mobile application provides access to the server at all times as long as the server is plugged in.</p>

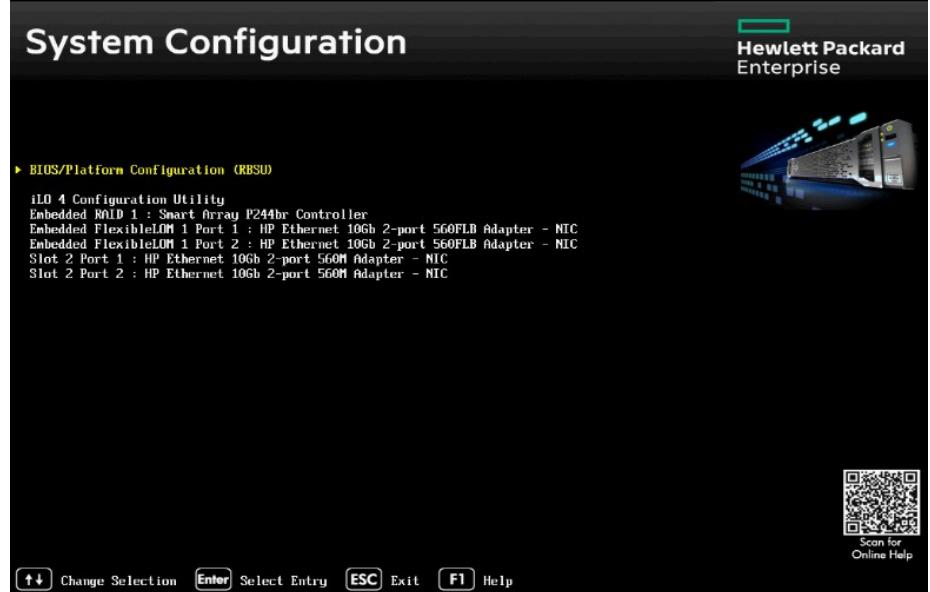
## Procedure 24. GEN9: Disable Hyperthreading (DP Only)

Step	Procedure	Result
9.	<p>Under the “<b>Integrated Remote Console</b>” section in the top of the right panel, click on the “<b>Launch</b>” dialogue button.</p> <p><b>NOTE:</b> Answer “<b>Yes/OK</b>” to any pop-up windows that might appear.</p>	
10.	<p>The iLO Console window is displayed.</p> <p><b>NOTE:</b> The console window resembles an MS-DOS window but DOES NOT have a scroll-back buffer.</p>	
11.	<p><b>DP Server XMI IP (SSH):</b> Access the command prompt via DP blade's XMI IP address and log into the server as the “<b>admusr</b>” user.</p>	<p>login: <b>admusr</b> Password: <b>&lt;admusr_password&gt;</b></p>

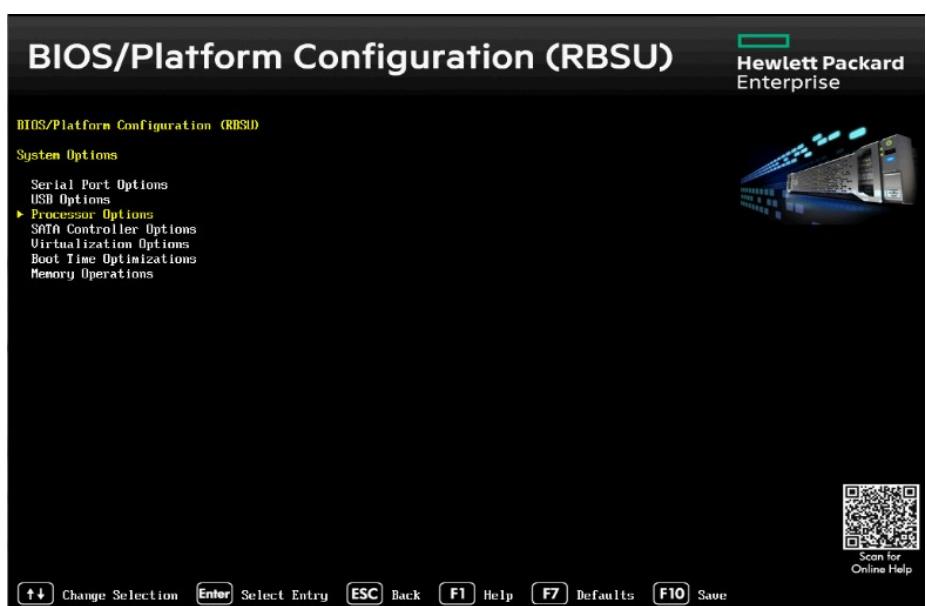
## Procedure 24. GEN9: Disable Hyperthreading (DP Only)

Step	Procedure	Result
12.	<p>Reboot the server.</p> <p>This can be achieved by logging in as the “<b>”</b> user and executing <b>init 6</b> command at the command prompt.</p>	<pre>\$ sudo init 6</pre> <p><b>NOTE:</b> <i>It is normal for the Remote Console window to stay blank for up to 3 minutes before initial output appears.</i></p>
13.	<p>Access the Server BIOS by pressing <b>F9</b> 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 <b>F9=Setup</b> in the lower left corner of the screen, press <b>[F9]</b> to access the BIOS setup screen. You may be required to press <b>[F9]</b> 2-3 times. The F9=Setup will change to F9 Pressed once it is accepted. See example below.</p>  <p><b>Expected Result:</b> ROM-Based Setup Utility is accessed and the ROM-Based Setup Utility menu will be displayed.</p> <p><b>NOTE:</b> <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>

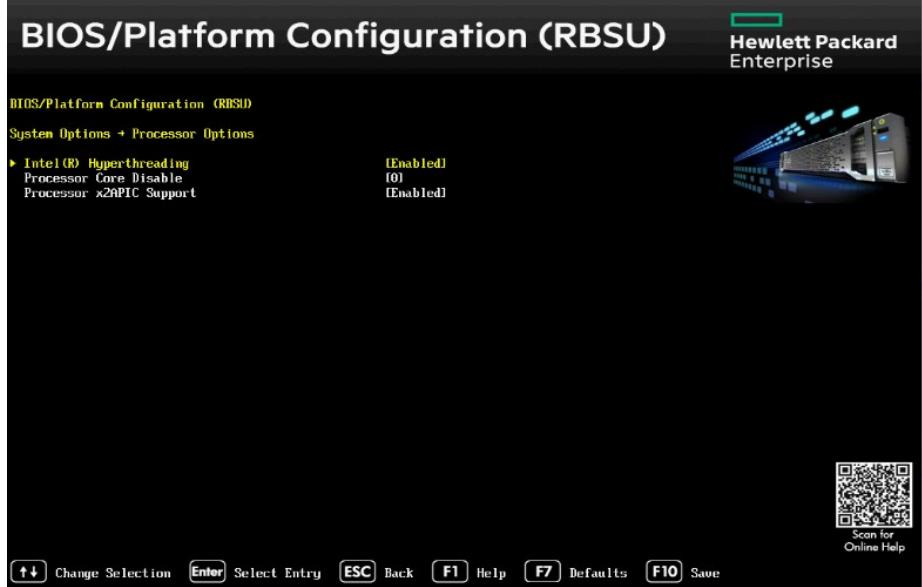
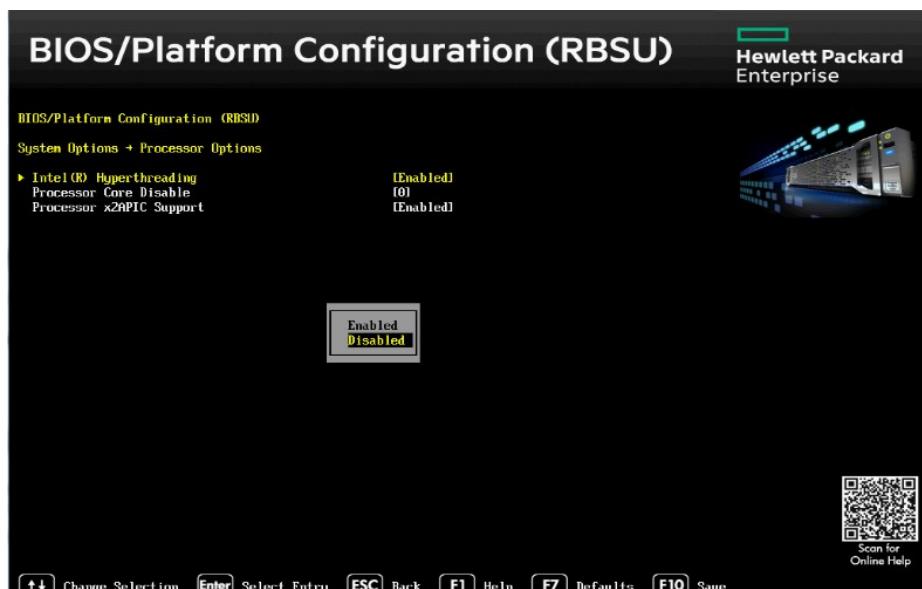
## Procedure 24. GEN9: Disable Hyperthreading (DP Only)

Step	Procedure	Result
14.	Scroll to <b>System Configuration</b>	<p>Scroll to <b>System Configuration</b> 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 has a dark background with white text. The 'System Configuration' option is highlighted with a yellow arrow. Other options include 'One-Time Boot Menu', 'Embedded Applications', 'System Information', 'System Health', 'Exit and resume system boot', 'Reboot the System', 'Select Language' (set to 'English'), and a QR code labeled 'Scan for Online Help'. At the bottom are navigation keys: 'Change Selection', 'Select Entry', 'ESC', 'Exit', 'Help', and 'Defaults'.</p>
15.	Scroll to <b>BIOS/Platform Configuration</b>	<p>Scroll to <b>BIOS/Platform Configuration</b> and press [ENTER]</p>  <p>The screenshot shows the 'System Configuration' menu. At the top right is the 'Hewlett Packard Enterprise' logo. Below it is a small image of server racks. The menu has a dark background with white text. The 'BIOS/Platform Configuration (RBSU)' option is highlighted with a yellow arrow. Other options include 'ILO 4 Configuration Utility', 'Embedded RAID 1 : Smart Array P244br 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', and 'Slot 2 Port 2 : HP Ethernet 10Gb 2-port 560M Adapter - NIC'. At the bottom are navigation keys: 'Change Selection', 'Select Entry', 'ESC', 'Exit', 'Help', and 'Defaults'.</p>

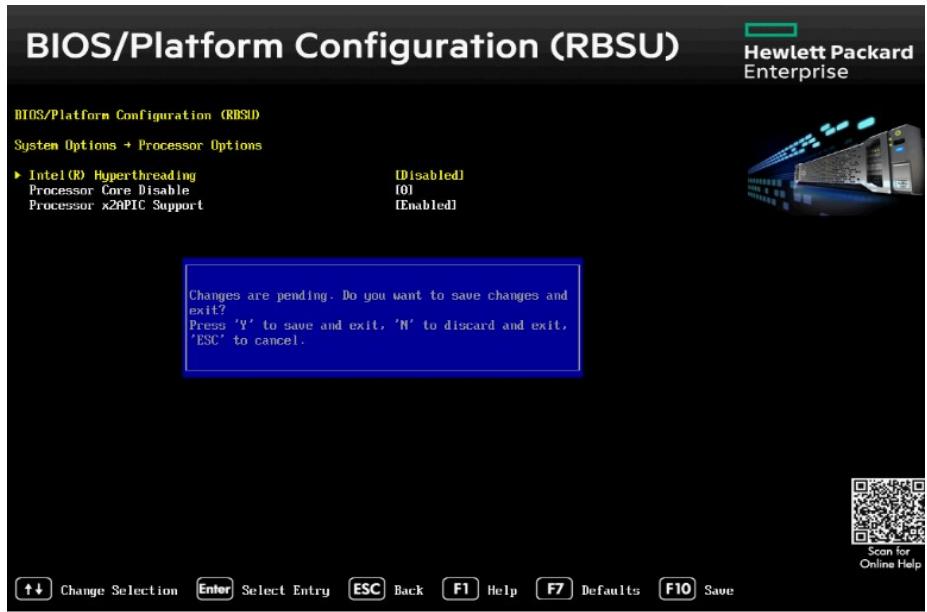
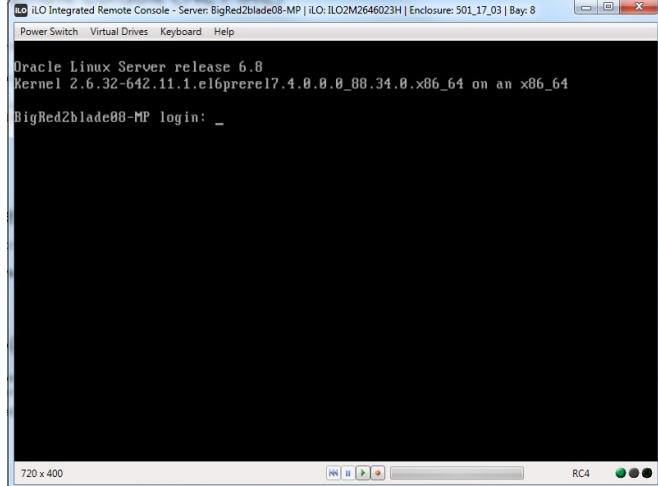
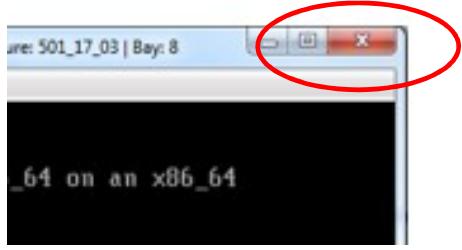
## Procedure 24. GEN9: Disable Hyperthreading (DP Only)

Step	Procedure	Result
16.	Select System Configuration	<p>Scroll to <b>System Configuration</b> and press <b>[ENTER]</b></p>  <p>The screenshot shows the 'System Utilities' menu. The 'System Configuration' option is highlighted with a blue arrow. Other options include One-Time Boot Menu, Embedded Applications, System Information, System Health, Exit and resume system boot, Reboot the System, and Select Language (set to English). At the bottom are navigation keys for Change Selection, Enter, Esc, F1, F7, and F10, along with a QR code for online help.</p>
17.	Select Processor Options	<p>Select <b>Processor Options</b> option and press <b>[ENTER]</b></p>  <p>The screenshot shows the 'BIOS/Platform Configuration (RBSU)' menu. The 'Processor Options' option is highlighted with a blue arrow. Other options under 'System Options' include Serial Port Options, USB Options, SATA Controller Options, Virtualization Options, Boot Time Optimizations, and Memory Operations. At the bottom are navigation keys for Change Selection, Enter, Esc, F1, F7, F10, and F10, along with a QR code for online help.</p>

## Procedure 24. GEN9: Disable Hyperthreading (DP Only)

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

## Procedure 24. GEN9: Disable Hyperthreading (DP Only)

Step	Procedure	Result
20.	<p>Save Configuration and Exit.</p> <p><b>NOTE:</b> <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><b>Expected Result:</b> 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

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

#### Procedure 25. GEN8: Configure the iLO for Rack Mount Server

Step	Procedure	Result
1.	<p><b>Configure Integrated Lights Out (iLO) for Rack Mount Servers (RMS):</b></p> <p><b>For HP GEN8 DL380 servers perform the following</b></p> <ol style="list-style-type: none"> <li>1. Reboot the server.</li> <li>2. When “iLO 4 Standard press [F8] to configure” is displayed, press [F8]</li> <li>3. Once [F8] is pressed wait for the iLO Configuration screen to appear.</li> </ol>	

Figure 27 – iLO Configuration – GEN8: Press [F8] to configure

## Procedure 25. GEN8: Configure the iLO for Rack Mount Server

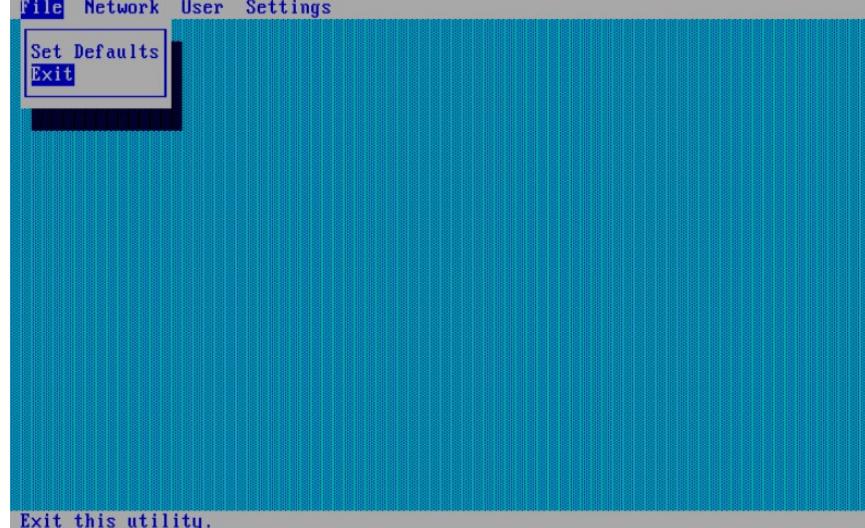
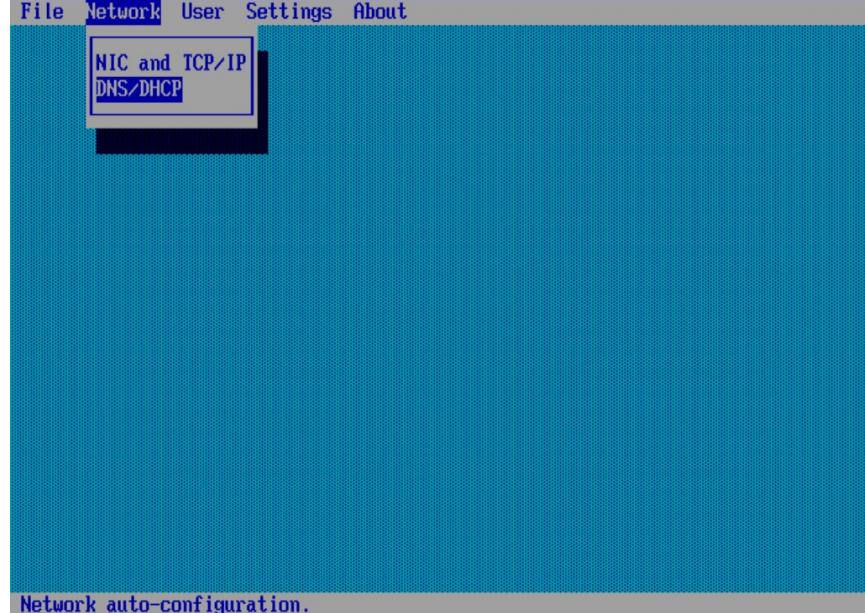
Step	Procedure	Result
2.	After the initial iLO configuration utility screen appears, use the arrow keys to select the Network menu	 <p>The image shows the initial iLO configuration utility screen. At the top, there is a menu bar with options: File, Network, User, Settings, and Exit. The 'Network' option is highlighted. A sub-menu is displayed below the 'Network' option, containing 'Set Defaults' and 'Exit'. At the bottom of the screen, there is a message: 'Exit this utility...'. The background of the screen is a dark blue color.</p>
3.	Within the Network menu, select DNS/DHCP	 <p>The image shows the iLO configuration utility screen with the Network menu selected. The sub-menu below 'Network' now shows 'NIC and TCP/IP' and 'DNS/DHCP'. The 'DNS/DHCP' option is highlighted. At the bottom of the screen, there is a message: 'Network auto-configuration.' The background of the screen is a dark blue color.</p>

Figure 28 – iLO Configuration – Initial iLO Configuration Screen

Figure 29 – iLO Configuration – Select Network-&gt;DNS/DHCP

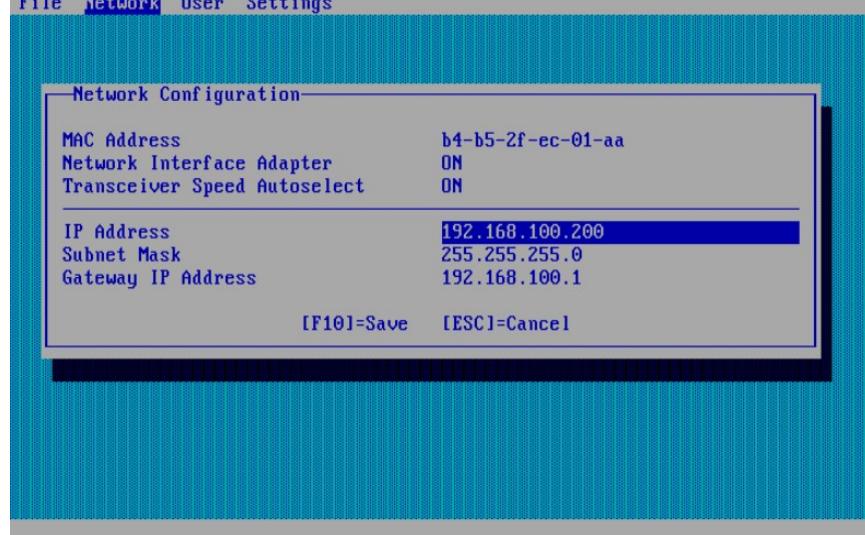
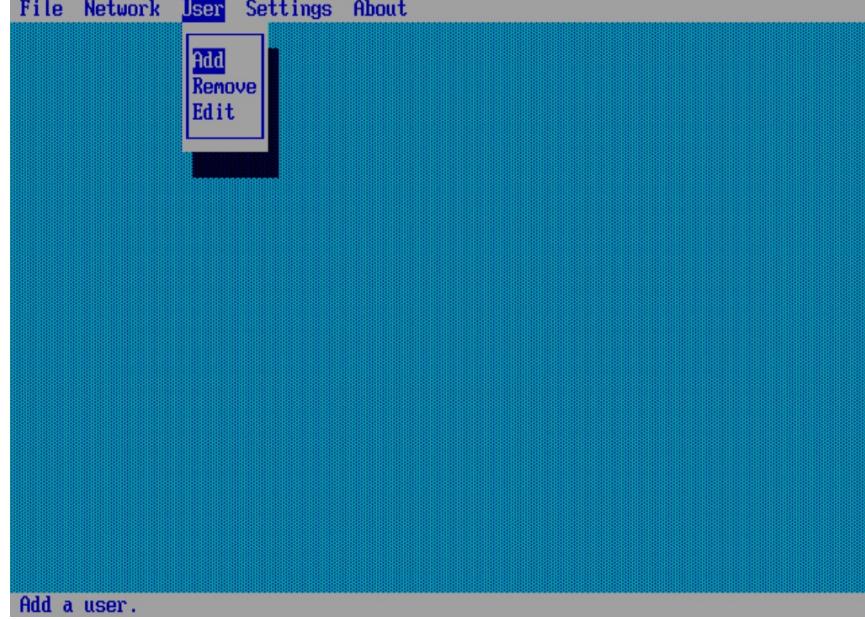
## Procedure 25. GEN8: Configure the iLO for Rack Mount Server

Step	Procedure	Result
4.	Verify that DNS/DHCP is set to OFF. If it is not set to OFF, use the [SPACE BAR] to toggle the setting to 'OFF'	<p>File Network User Settings About</p> <p>Network Autoconfiguration</p> <p>DHCP Enable OFF DNS Name ILOUSE2246N7P</p> <p>[F10]=Save [ESC]=Cancel [F1]=Advanced</p> <p>Hit [SPACE] to change this setting.</p>
5.	Press [F10] to save if changes were made or [ESC] to Cancel if no changes were made. You should be returned to the Network main menu.	<p>File Network User Settings About</p> <p>NIC and TCP/IP DNS/DHCP</p> <p>Network configuration...</p>

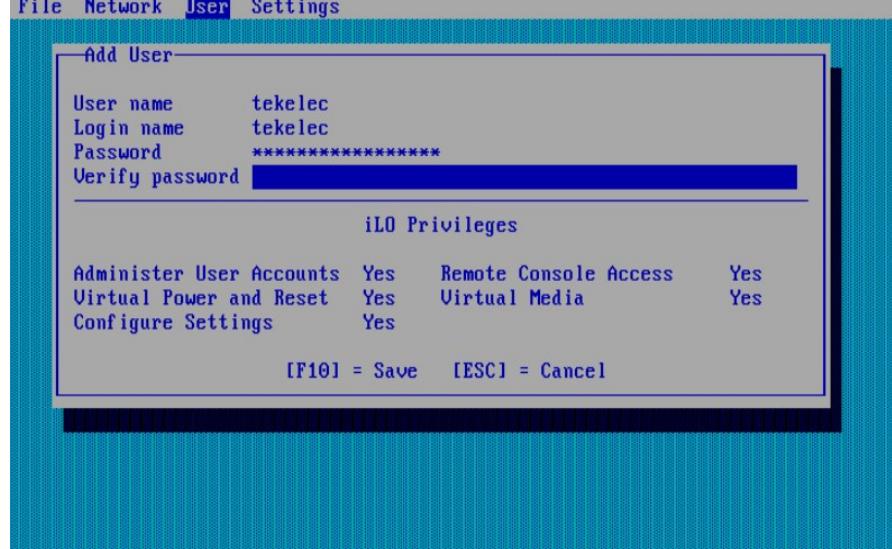
Figure 30 – iLO Configuration – press [SPACE BAR] to turn DHCP OFF

Figure 31 – iLO Configuration – Select NIC and TCP/IP

## Procedure 25. GEN8: Configure the iLO for Rack Mount Server

Step	Procedure	Result
6.	Press [ENTER] if required and select 'NIC and TCP/IP'	 <p>Figure 32 – iLO Configuration – Select NIC and TCP/IP and configure Network</p>
7.	Enter the Network Configuration information for the server. Use the arrow keys to select the field to change	IP Address should be set based on the information in the NAPD.
8.	<p>Once the <b>Network Configuration</b> information has been entered, press <b>[F10]</b> to save the settings.</p> <p>Using the arrow keys, select the <b>User</b> menu, then select <b>Add</b> and press <b>[ENTER]</b></p>	 <p>Figure 33 – iLO Configuration – Select User – Add</p>

## Procedure 25. GEN8: Configure the iLO for Rack Mount Server

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

### J.1.2. GEN8: RMS BIOS Configuration, Verify Processor and Memory

#### Prerequisites & Requirements:

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

#### Procedure 26. Enter the ROM-Based Setup Utility (RBSU)

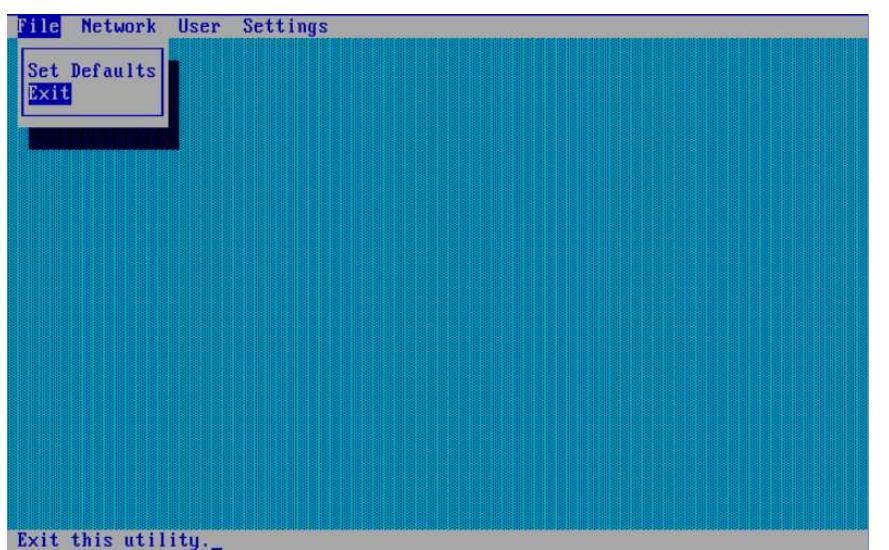
Step	Procedure	Result
1.	<p>Reboot the server. You will see an HP ProLiant screen as shown below. When prompted with the option to Press F9 for setup, do so. Once F9 is pressed, you should see “F9” selected on the screen as shown below:</p>	 <p>HP ProLiant</p> <p>2 Processor(s) detected, 16 total cores enabled, Hyperthreading is enabled    Proc 1: Intel(R) Xeon(R) CPU E5-2670 0 @ 2.60GHz    Proc 2: Intel(R) Xeon(R) CPU E5-2670 0 @ 2.60GHz    QPI Speed: 8.0 GT/s    HP Power Profile Mode: Balanced Power and Performance    Power Regulator Mode: Dynamic Power Savings</p> <p>Redundant ROM Detected - This system contains a valid backup System ROM.</p> <p>Inlet Ambient Temperature: 23C/73F    Advanced Memory Protection Mode: Advanced ECC Support    HP SmartMemory authenticated in all populated DIMM slots.</p> <p>SATA Option ROM ver 2.00.C02    Copyright 1982, 2011. Hewlett-Packard Development Company, L.P.    iLO 4 Advanced    iLO 4 v1.05 Apr 19 2012 192.168.100.101</p> <p>Slot 0: HP Smart Array P420i Controller (1 GiB, v2.14) 1 Logical Drive</p> <p>Power Regulator    Smart Array    Smart Array Advanced    HP SmartMemory    Intelligent Provisioning    Dynamic Power Capping    Sea of Sensors 3D    iLO Management Engine    iLO Advanced    Agileless Management</p> <p>F9 Setup F10 Intelligent Provisioning F11 Boot Menu</p>
2.	<p>After the initial iLO configuration utility screen appears, use the arrow keys to select the Network menu</p>	 <p>File Network User Settings</p> <p>Set Defaults</p> <p>Exit</p> <p>Exit this utility...</p>

Figure 34 – RBSU – Enter RBSU – F9 Pressed indicated in HP Splash Screen

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

**Prerequisites & Requirements:**

- ✓ Server rebooted and in RBSU mode

**Procedure 27. Verify/Configure Serial Port Options**

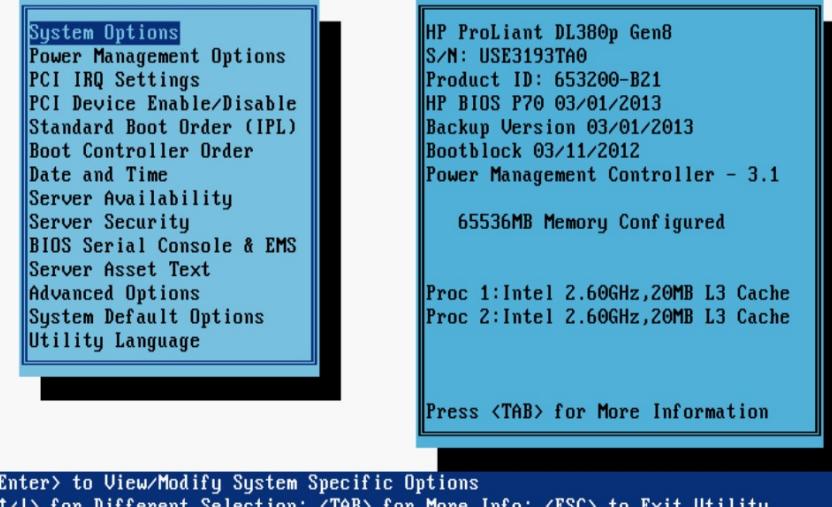
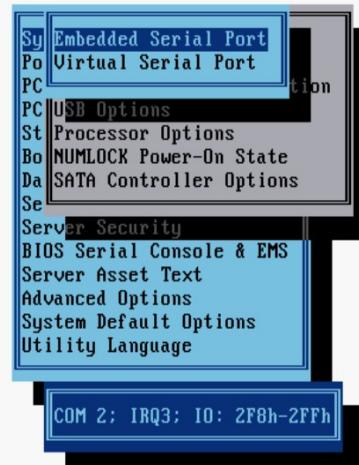
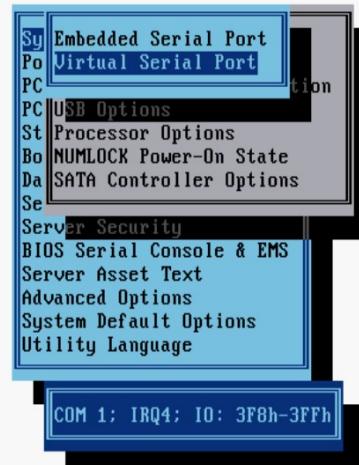
Step	Procedure	Result
1.	Select <b>System Options</b> , then <b>Serial Port Options</b> :	<p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p>  <p>System Options</p> <ul style="list-style-type: none"> <li>Power Management Options</li> <li>PCI IRQ Settings</li> <li>PCI Device Enable/Disable</li> <li>Standard Boot Order (IPL)</li> <li>Boot Controller Order</li> <li>Date and Time</li> <li>Server Availability</li> <li>Server Security</li> <li>BIOS Serial Console &amp; EMS</li> <li>Server Asset Text</li> <li>Advanced Options</li> <li>System Default Options</li> <li>Utility Language</li> </ul> <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 &lt;TAB&gt; for More Information</p> <p>&lt;Enter&gt; to View/Modify System Specific Options &lt;↑/↓&gt; for Different Selection; &lt;TAB&gt; for More Info; &lt;ESC&gt; to Exit Utility</p>

Figure 36 – ROM-Based Setup Utility – Initial Screen

Figure 37 – ROM-Based Setup Utility – Serial Port Options

## Procedure 27. Verify/Configure Serial Port Options

Step	Procedure	Result
2.	<b>Verify the settings for Embedded Serial Port:</b>	<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><b>ROM-Based Setup Utility, Version 3.00</b> 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 &lt;TAB&gt; for More Information</p> <p>&lt;Enter&gt; to Modify Embedded Serial Port Settings: &lt;F1&gt; for Help &lt;↑/↓&gt; for Different Configuration Option: &lt;ESC&gt; to Close Menu</p>
3.	<b>Verify the settings for Virtual Serial Port:</b>	<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><b>ROM-Based Setup Utility, Version 3.00</b> 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 &lt;TAB&gt; for More Information</p> <p>&lt;Enter&gt; to Modify Virtual Serial Port Settings: &lt;F1&gt; for Help &lt;↑/↓&gt; for Different Configuration Option: &lt;ESC&gt; to Close Menu</p>

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

**Prerequisites & Requirements:**

- ✓ Server rebooted and in RBSU

**Procedure 28. Verify/Set Power Management**

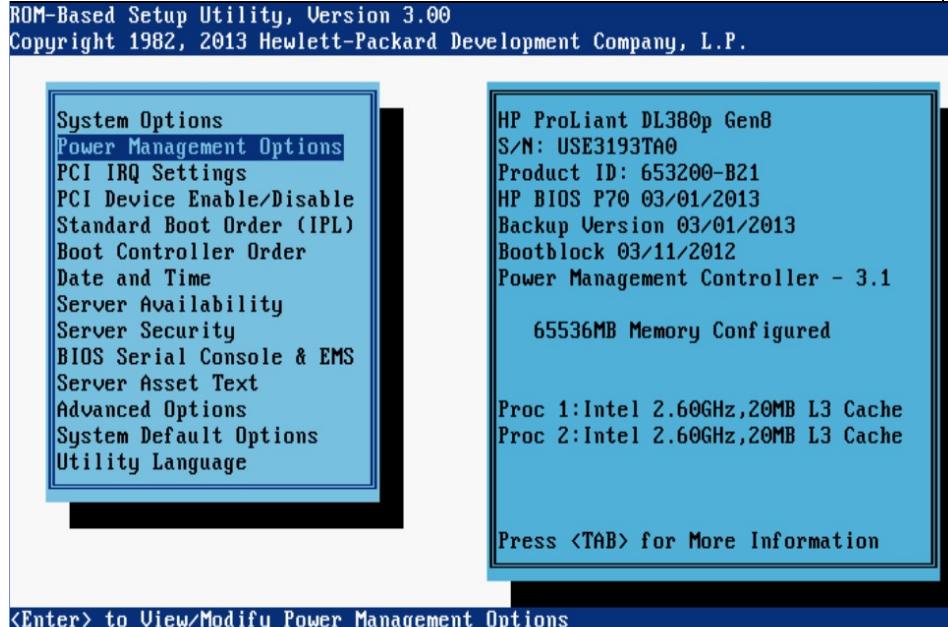
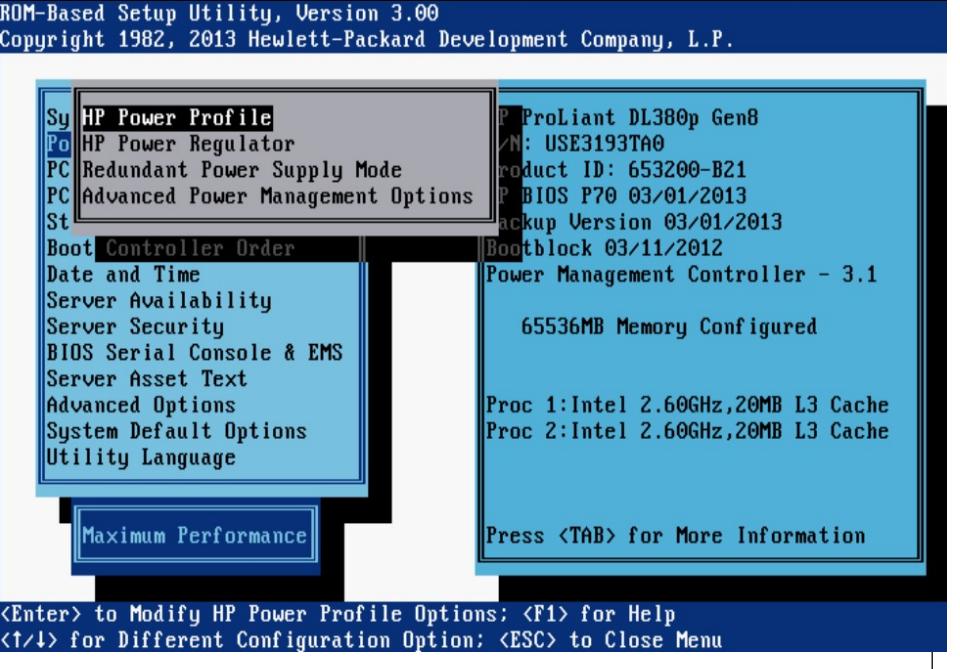
Step	Procedure	Result
1. <input type="checkbox"/>	While in <b>RBSU</b> , verify or set the <b>HP Power Profile</b>	<p>Select “<b>Power Management Options</b>”, then press <b>[ENTER]</b>.</p>  <p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p> 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

Figure 39 – RBSU – Select Power Management Options

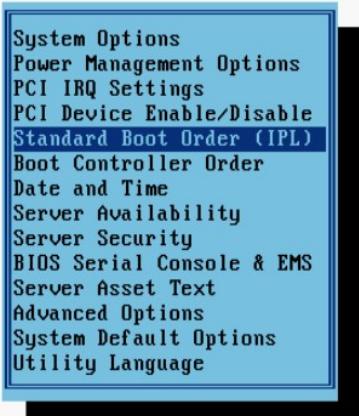
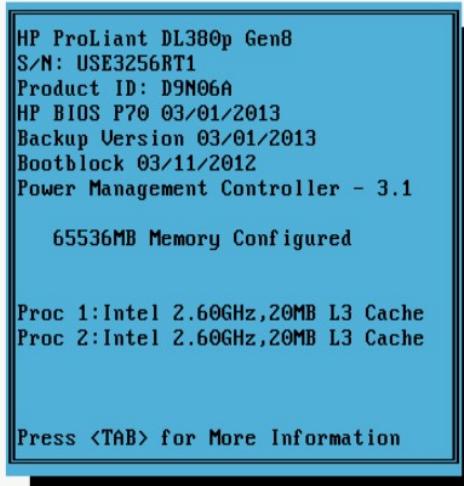
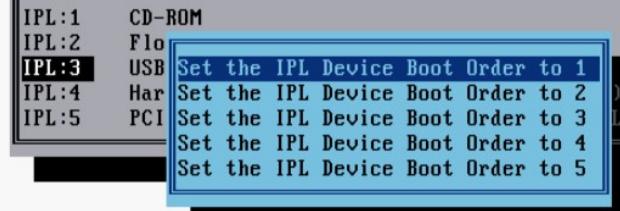
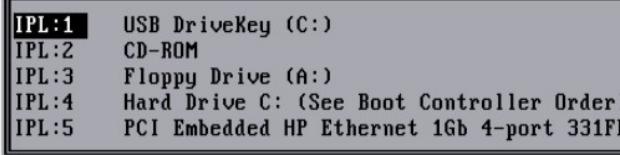
## Procedure 28. Verify/Set Power Management

Step	Procedure	Result
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</p> <p>Boot Controller Order Date and Time Server Availability Server Security BIOS Serial Console &amp; EMS Server Asset Text Advanced Options System Default Options Utility Language</p> <p>Maximum Performance</p> <p>Press &lt;TAB&gt; for More Information</p>
3.	<ul style="list-style-type: none"> <li>Select <b>HP Power Profile</b></li> <li>Verify it is set to <b>Maximum Performance</b></li> </ul>	
4.		<p>If not set to <b>Maximum Performance</b>, press [ENTER] and select “<b>Maximum Performance</b>”, then press [ENTER]</p>

**Prerequisites & Requirements:**

- ✓ Server rebooted and in RBSU

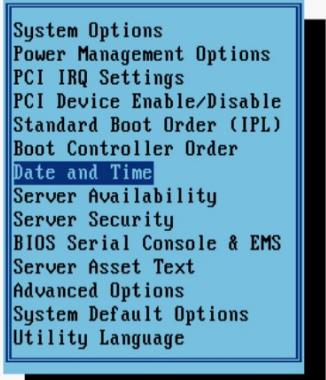
**Procedure 29. Verify/Set Standard Boot Order (IPL)**

Step	Procedure	Result
1.	While in <b>RBSU</b> , verify or set the <b>Standard Boot Order</b> . Select <b>Standard Boot Order</b> , then press <b>[ENTER]</b>	<p>Select “<b>Power Management Options</b>”, then press <b>[ENTER]</b>.</p>   <p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p> <p>System Options Power Management Options PCI IRQ Settings PCI Device Enable/Disable <b>Standard Boot Order (IPL)</b> Boot Controller Order Date and Time Server Availability Server Security BIOS Serial Console &amp; EMS Server Asset Text Advanced Options System Default Options Utility Language</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 &lt;TAB&gt; for More Information</p> <p>&lt;Enter&gt; to View/Modify the IPL Device Boot Order &lt;↑/↓&gt; for Different Selection: &lt;TAB&gt; for More Info: &lt;ESC&gt; to Exit Utility</p> <p><b>Figure 41 – Select Standard Boot Order</b></p>
2.	Verify that <b>IPL:1</b> is <b>USB DriveKey (C:)</b> . If <b>IPL:1</b> is not <b>USB DriveKey</b> , then select <b>USB DriveKey</b> and press <b>[ENTER]</b> , then select “ <b>Set the IPL Device Boot Order to 1</b> ” and press <b>[ENTER]</b>	 <p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p> <p>IPL:1 CD-ROM IPL:2 Flo <b>IPL:3 USB Set the IPL Device Boot Order to 1</b> IPL:4 Har Set the IPL Device Boot Order to 2 IPL:5 PCI Set the IPL Device Boot Order to 3 Set the IPL Device Boot Order to 4 Set the IPL Device Boot Order to 5</p> <p>LR Adapter Port 1</p> <p><b>Figure 42 – Select Set the IP Device Boot Order to 1</b></p>
3.	Verify that <b>IPL:1</b> is now <b>USB DriveKey (C:)</b>	 <p>IPL:1 USB DriveKey (C:) IPL:2 CD-ROM IPL:3 Floppy Drive (A:) IPL:4 Hard Drive C: (See Boot Controller Order) IPL:5 PCI Embedded HP Ethernet 1Gb 4-port 331FLR Adapter Port 1</p> <p><b>Figure 43 – IPL:1 is Now USB DriveKey (C:)</b></p>

**Prerequisites & Requirements:**

- ✓ Server rebooted and in RBSU

**Procedure 30. Verify/Set System Date and Time**

Step	Procedure	Result
1.	<p><b>While in RBSU, set the system Date and Time:</b> Select “<b>Date and Time</b>”, then press <b>[ENTER]</b></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</p> <p>Press &lt;TAB&gt; for More Information</p> <p>&lt;Enter&gt; to View/Modify Date and Time &lt;↑↓&gt; for Different Selection; &lt;TAB&gt; for More Info; &lt;ESC&gt; to Exit Utility</p>
2.	<p>Set the current <b>Date and Time</b>. Use <b>UTC</b> for the time settings. Once the correct Date and Time has been set, press <b>[ENTER]</b> 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</p> <p>Press &lt;TAB&gt; for More Information</p> <p>Modify Date and Time &lt;ENTER&gt; to Save Changes, &lt;ESC&gt; to Main Menu</p>

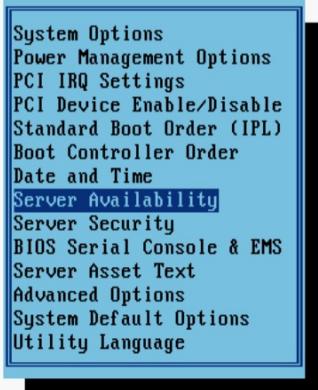
**Figure 44 – Select Date and Time****Figure 45 – Set Date and Time (UTC)**

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**.

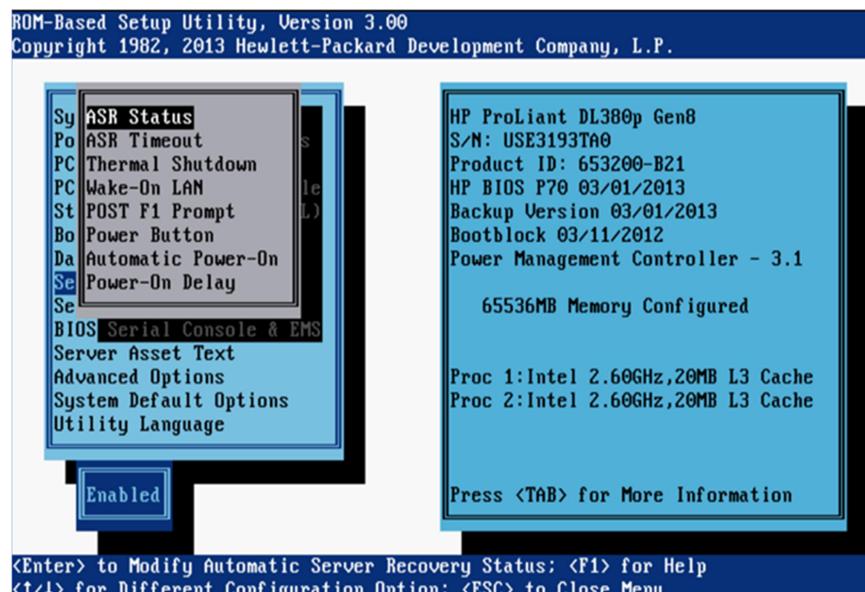
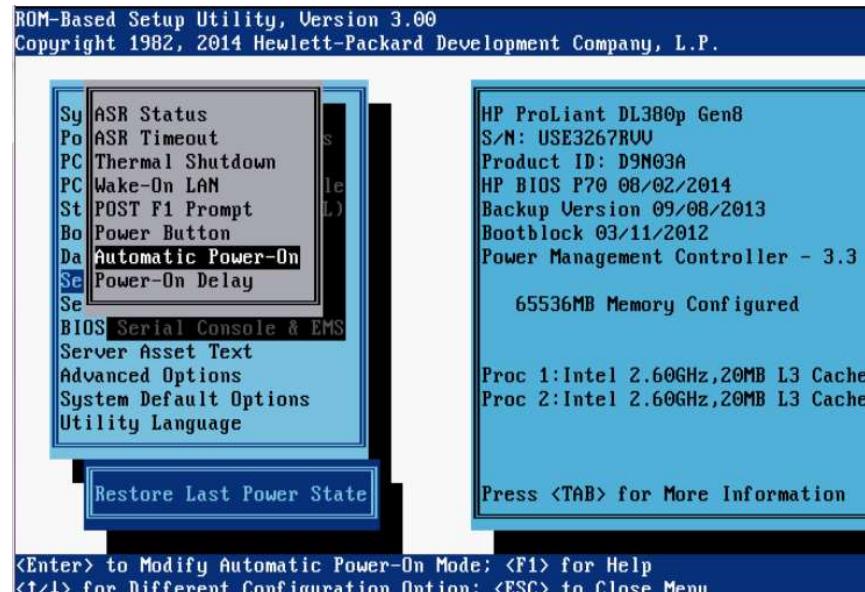
#### Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU

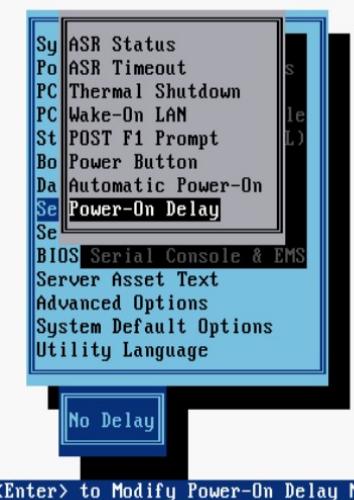
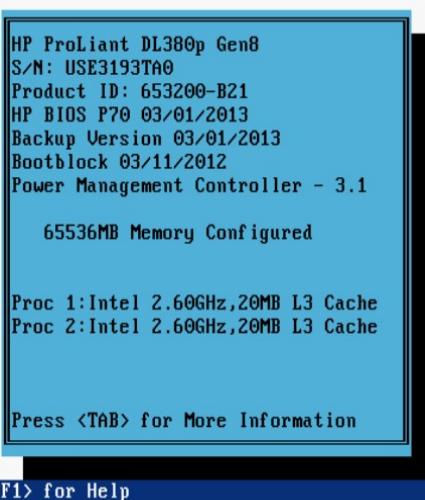
#### Procedure 31. Verify/Set Server Availability

Step	Procedure	Result
1.	<p>While in <b>RBSU</b>, set the <b>Server Availability</b>:</p> <p>Select “<b>Server Availability</b>”, then press <b>[ENTER]</b></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 &lt;TAB&gt; for More Information</p> <p>&lt;Enter&gt; to View/Modify Server Availability Options &lt;↑↓&gt; for Different Selection; &lt;TAB&gt; for More Info; &lt;ESC&gt; to Exit Utility</p>
2.	<p>After pressing <b>[ENTER]</b> 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"> <li>✓ Select <b>ASR Status</b>.</li> <li>✓ Verify it is set to <b>Enabled</b>.</li> </ul>	

## Procedure 31. Verify/Set Server Availability

Step	Procedure	Result
4.	If not set to <b>Enabled</b> , press <b>[ENTER]</b> and select “ <b>Enabled</b> ”, then press <b>[ENTER]</b>	 <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</p> <p>BIOS Serial Console &amp; 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</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 &lt;TAB&gt; for More Information</p> <p>&lt;Enter&gt; to Modify Automatic Server Recovery Status; &lt;F1&gt; for Help &lt;↑↓&gt; for Different Configuration Option; &lt;ESC&gt; to Close Menu</p>
5.	Select <b>Automatic Power-On</b>	 <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 <b>Automatic Power-On</b> Power-On Delay</p> <p>BIOS Serial Console &amp; 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</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 &lt;TAB&gt; for More Information</p> <p>&lt;Enter&gt; to Modify Automatic Power-On Mode; &lt;F1&gt; for Help &lt;↑↓&gt; for Different Configuration Option; &lt;ESC&gt; to Close Menu</p>
6.	Verify <b>Automatic Power-On</b> is set to <b>Restore Last Power State</b>	
7.	If not set to <b>Enabled</b> , press <b>[ENTER]</b> and select “ <b>Enabled</b> ”, then press <b>[ENTER]</b>	

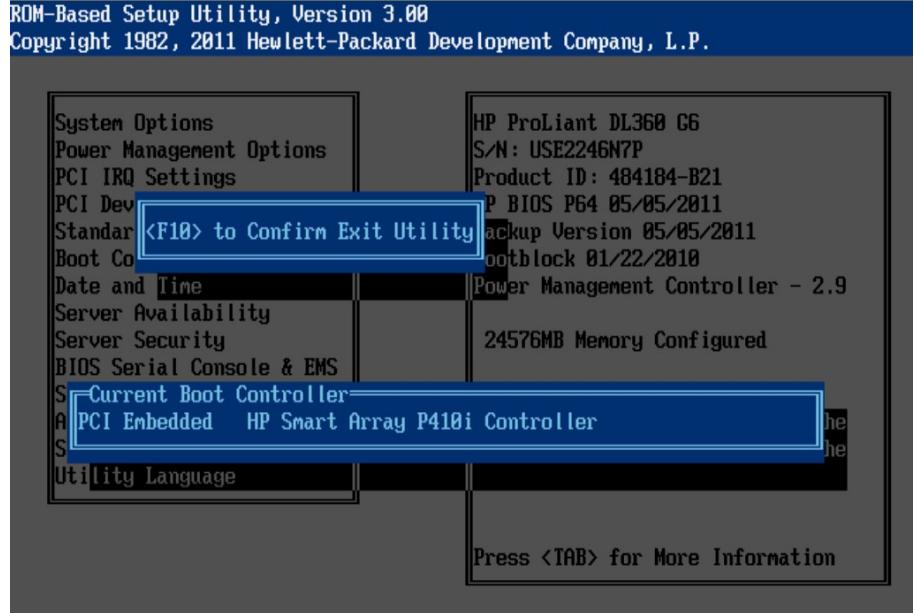
## Procedure 31. Verify/Set Server Availability

Step	Procedure	Result
8.	Select <b>Power-On Delay</b>	 <p>The screenshot shows the RBSU (Remote BIOS Setup Utility) menu. The 'Power-On Delay' option is highlighted with a blue box. The menu includes options like ASR Status, ASR Timeout, Thermal Shutdown, Wake-On LAN, POST F1 Prompt, Power Button, Automatic Power-On, and Power-On Delay. Below the menu is a sub-menu for 'Power-On Delay' with 'No Delay' selected. The bottom of the screen displays help text: &lt;Enter&gt; to Modify Power-On Delay Mode; &lt;F1&gt; for Help; &lt;↑↓&gt; for Different Configuration Option; &lt;ESC&gt; to Close Menu.</p>  <p>The screenshot shows the system information screen in RBSU. It displays the following details:</p> <ul style="list-style-type: none"> <li>HP ProLiant DL380p Gen8</li> <li>S/N: USE3193TA0</li> <li>Product ID: 653200-B21</li> <li>HP BIOS P70 03/01/2013</li> <li>Backup Version 03/01/2013</li> <li>Bootblock 03/11/2012</li> <li>Power Management Controller - 3.1</li> <li>65536MB Memory Configured</li> <li>Proc 1: Intel 2.60GHz, 20MB L3 Cache</li> <li>Proc 2: Intel 2.60GHz, 20MB L3 Cache</li> </ul> <p>At the bottom, it says 'Press &lt;TAB&gt; for More Information'.</p>
9.	Verify <b>Power-On Delay</b> is set to <b>No Delay</b>	
10.	If not set to <b>Enabled</b> , press <b>[ENTER]</b> and select " <b>No Delay</b> ", then press <b>[ENTER]</b>	

**Prerequisites & Requirements:**

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

**Procedure 32. Exit the RBSU**

Step	Procedure	Result
11.	<p>While in <b>RBSU</b>, set the <b>Server Availability</b>:</p> <p>Select “<b>Server Availability</b>”, then press <b>[ENTER]</b></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 <b>&lt;F10&gt; to Confirm Exit Utility</b> Boot Co Date and Time Server Availability Server Security BIOS Serial Console &amp; EMS S <b>Current Boot Controller</b> 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 &lt;TAB&gt; for More Information</p> <p>&lt;F10&gt; to Exit Utility Any Other Key to Return to Main Menu</p>
12.	<p><b>Expected Results:</b></p> <p>The BIOS for the server is successfully configured, memory and processors are verified.</p>	

## J-2. GEN9: RMS Configure iLO

### J.2.1. RMS: Configure iLO

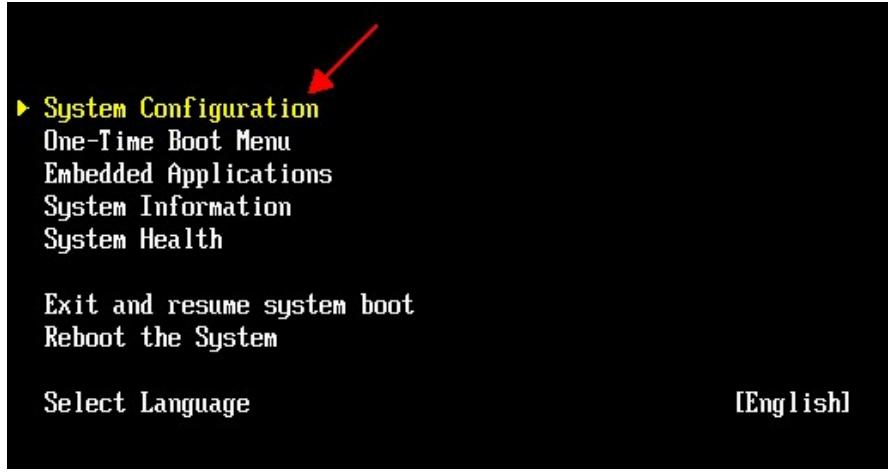
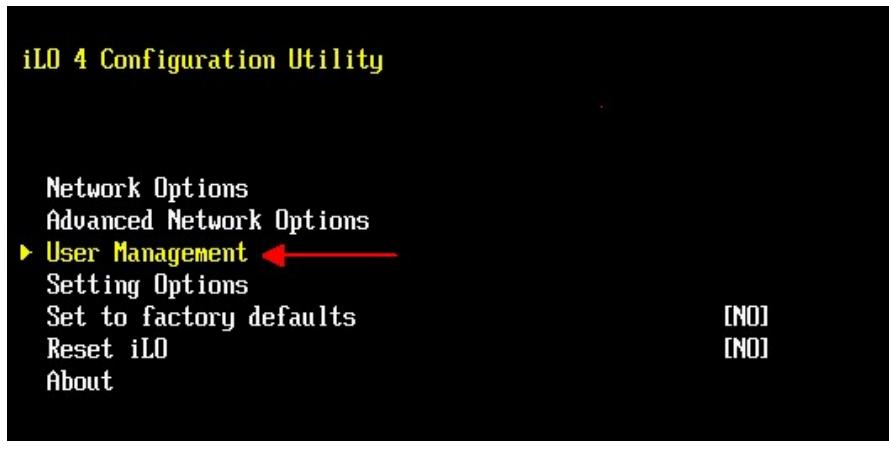
#### Prerequisites & Requirements:

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

#### Procedure 33. GEN8: Configure the iLO for Rack Mount Server

Step	Procedure	Result
1.	<p><b>Reboot the server.</b> You will see an HP screen as shown below. When prompted with the option to <b>Press F9</b> for System Utilities, do so. Once <b>F9</b> is pressed, you should see “<b>F9’ selected</b> on the screen as shown below</p>	 <p>Figure 51 – GEN9: iLO Configuration – GEN9: Press [F9] to configure</p>

## Procedure 33. GEN8: Configure the iLO for Rack Mount Server

Step	Procedure	Result
2.	<p>After F9 is pressed select <b>System Configuration</b> then select <b>iLO 4 Configuration Utility</b></p>	 <p>► <b>System Configuration</b>  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 <b>iLO Configuration Utility</b> screen appears, select <b>User Management</b></p>	 <p><b>iLO 4 Configuration Utility</b></p> <p>Network Options  Advanced Network Options  ► <b>User Management</b>  Setting Options  Set to factory defaults  Reset iLO  About</p> <p>[NO] [NO]</p>

## Procedure 33. GEN8: Configure the iLO for Rack Mount Server

Step	Procedure	Result										
4.	Select <b>Add User</b> press [ENTER] to add the <b>admusr</b> user.	 <p><b>System Configuration</b></p> <p>iLO 4 Configuration Utility</p> <p>User Management</p> <p>► Add User ← Edit/Remove User</p>										
5.	<p>Enter the <b>New User Name</b>, <b>Login Name</b> and <b>Password</b> information for <b>tekelec</b>:</p> <p>New User Name: <b>tekelec</b></p> <p>Login Name: <b>tekelec</b></p> <p>Password: <b>tekelec1</b></p>	 <p>iLO 4 Configuration Utility</p> <p>User Management → Add User</p> <p>New User iLO 4 Privileges:</p> <table border="0"> <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> </table> <p>New User Information:</p> <p>► New User Name [ ]</p> <p>Login Name [ ]</p> <p>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 55 – GEN9: iLO Configuration – Add User

Figure 56 – GEN9: iLO Configuration – Add New User Name: tekelec

## Procedure 33. GEN8: Configure the iLO for Rack Mount Server

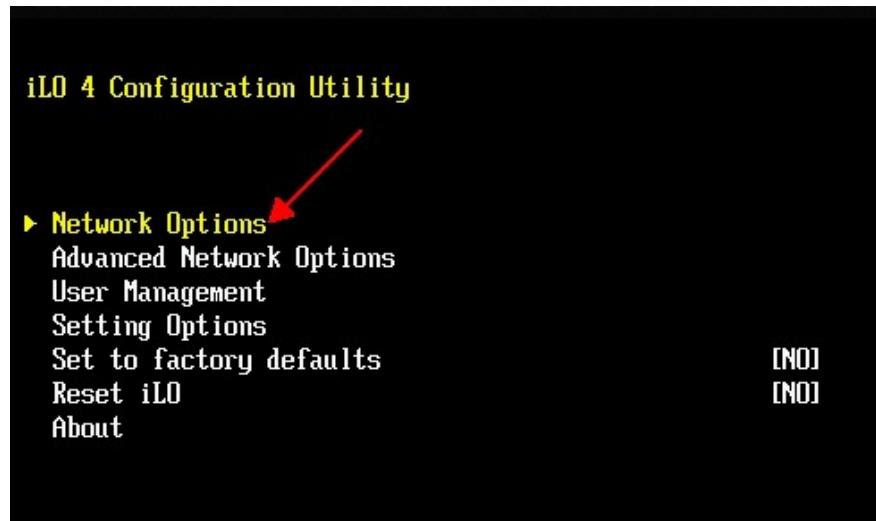
Step	Procedure	Result																
6.	<p>Press [ESC] to go back to the iLO 4 Configuration Utility menu, then select Network Options.</p>	 <p>iLO 4 Configuration Utility</p> <ul style="list-style-type: none"> <li>▶ Network Options <span style="color: red;">→</span></li> <li>Advanced Network Options</li> <li>User Management</li> <li>Setting Options</li> <li>Set to factory defaults</li> <li>Reset iLO</li> <li>About</li> </ul> <p>[NO] <span style="float: right;">[NO]</span></p>																
7.	<p>Within the Network menu verify that <b>DHCP Enable</b> is set to <b>[OFF]</b>. If not set to <b>[OFF]</b>, press <b>[ENTER]</b> and arrow down to select <b>[OFF]</b> then press <b>[ENTER]</b>.</p>	 <p>iLO 4 Configuration Utility</p> <p>Network Options</p> <table border="0"> <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 <span style="color: red;">←</span></td> <td>[OFF]</td> </tr> <tr> <td>DNS Name</td> <td>[ELOUSE5511PHW]</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>	MAC Address	[94:57:A5:69:4F:30]	Network Interface Adapter	[ON]	Transceiver Speed Autoselect	[ON]	▶ DHCP Enable <span style="color: red;">←</span>	[OFF]	DNS Name	[ELOUSE5511PHW]	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 <span style="color: red;">←</span>	[OFF]																	
DNS Name	[ELOUSE5511PHW]																	
IP Address	[192.168.100.200]																	
Subnet Mask	[255.255.255.0]																	
Gateway IP Address	[192.168.100.1]																	

Figure 58 – GEN9: iLO Configuration – DHCP Enable to OFF

## Procedure 33. GEN8: Configure the iLO for Rack Mount Server

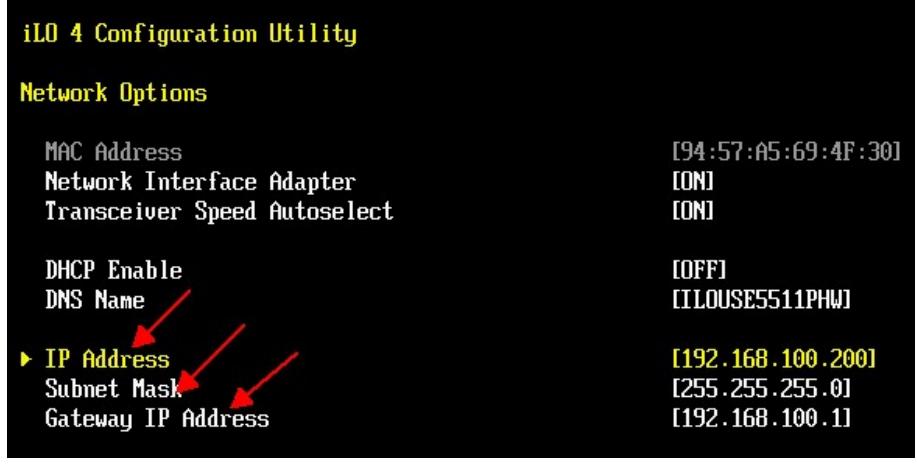
Step	Procedure	Result																				
8.	<p>Use the arrow keys to move up/down to set the <b>IP Address</b>, <b>Subnet Mask</b> and <b>Gateway IP Address</b> for the server.</p>	<p><b>IP Address should be set based on the information in the NAPD.</b></p> <p><b>Subnet Mask:</b> <b>255.255.255.0</b>  <b>Gateway IP Address:</b> <b>192.168.100.1</b></p>  <p><b>iLO 4 Configuration Utility</b></p> <p><b>Network Options</b></p> <table border="0"> <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> </td> <td></td> </tr> <tr> <td>DHCP Enable</td> <td>[OFF]</td> </tr> <tr> <td>DNS Name</td> <td>[[LOUSE5511PHW]]</td> </tr> <tr> <td> </td> <td></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>	MAC Address	[94:57:A5:69:4F:30]	Network Interface Adapter	[ON]	Transceiver Speed Autoselect	[ON]	 		DHCP Enable	[OFF]	DNS Name	[[LOUSE5511PHW]]	 		► 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	[[LOUSE5511PHW]]																					
► IP Address	[192.168.100.200]																					
Subnet Mask	[255.255.255.0]																					
Gateway IP Address	[192.168.100.1]																					

Figure 59 – GEN9: iLO Configuration – Network Configuration IP, Subnet, Gateway

## Procedure 33. GEN8: Configure the iLO for Rack Mount Server

Step	Procedure	Result
9.	Press <b>[F10]</b> to save all changes, <b>ENTER “Y”</b> to confirm then exit out and reboot the server	<p><b>iLO 4 Configuration Utility</b></p> <p><b>Network Options</b></p> <ul style="list-style-type: none"> <li>► MAC Address [94:57:A5:69:3F:DE]</li> <li>Network Interface Adapter [ON]</li> <li>Transceiver Speed Autoselect [ON]</li> <li>DHCP Enable [OFF]</li> <li>DNS Name [iLOUSE5511PHX]</li> <li>IP Address</li> <li>Subnet Mask</li> <li>Gateway IP Address</li> </ul> <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><b>iLO 4 Configuration Utility</b></p> <p><b>User Management → Add User</b></p> <p><b>New User iLO 4 Privileges:</b></p> <ul style="list-style-type: none"> <li>Administer User Accounts [YES]</li> <li>Remote Console Access [YES]</li> <li>Virtual Power and Reset [YES]</li> <li>Virtual Media [YES]</li> <li>Configure Settings [YES]</li> </ul> <p><b>New User Information:</b></p> <ul style="list-style-type: none"> <li>New User Name</li> <li>Login Name</li> <li>► Password</li> </ul> <p>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 60 – GEN9: iLO Configuration – F10 Save Changes

Figure 61 – 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

#### Prerequisites & Requirements:

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

#### Procedure 34. GEN9: Enter the ROM-Based Setup Utility (RBSU)

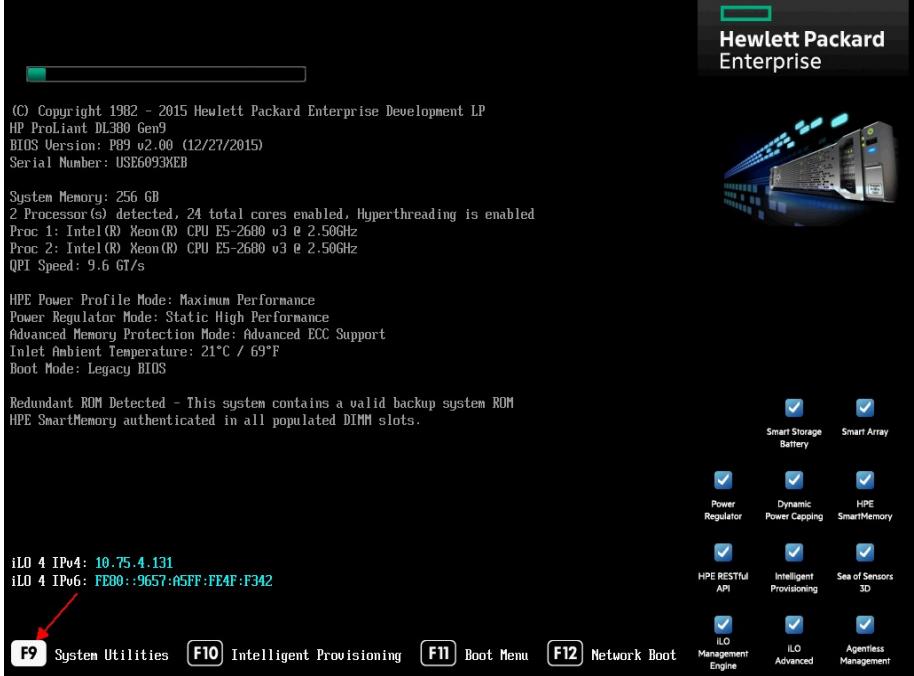
Step	Procedure	Result
1.	<p><b>Reboot the server.</b> You will see an HP screen as shown below. When prompted with the option to <b>Press F9 for System Utilities</b>, do so. Once <b>F9</b> is pressed, you should see “<b>F9’ selected</b> on the screen as shown below:</p>	 <p>(C) Copyright 1982 - 2015 Hewlett Packard Enterprise Development LP HP ProLiant DL380 Gen9 BIOS Version: P89 v2.00 (12/27/2015) Serial Number: USE6093KEB</p> <p>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</p> <p>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> <p>Redundant ROM Detected - This system contains a valid backup system ROM HPE SmartMemory authenticated in all populated DIMM slots.</p> <p>iLO 4 IPv4: 10.75.4.131 iLO 4 IPv6: FE80::9657:65FF:FE4F:F342</p> <p><b>F9</b> System Utilities <b>F10</b> Intelligent Provisioning <b>F11</b> Boot Menu <b>F12</b> Network Boot</p> <p>Smart Storage Battery, Smart Array, Power Regulator, Dynamic Power Capping, HPE SmartMemory, HPE RESTful API, Intelligent Provisioning, Sea of Sensors 3D, ILO Management Engine, ILO Advanced, Agentless Management</p>

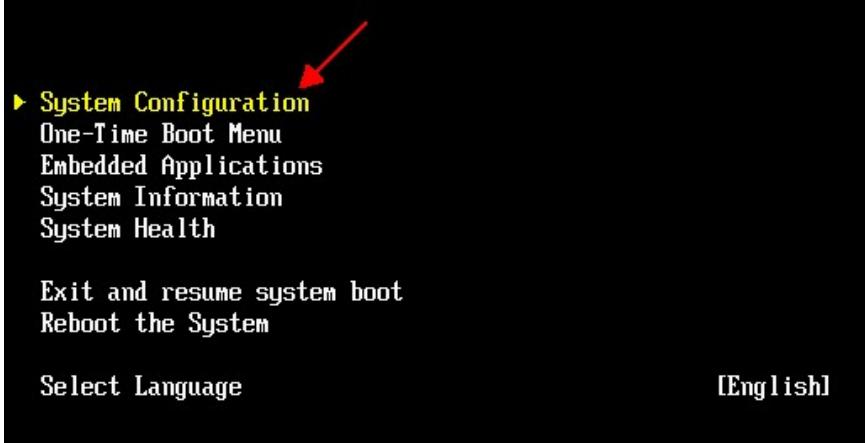
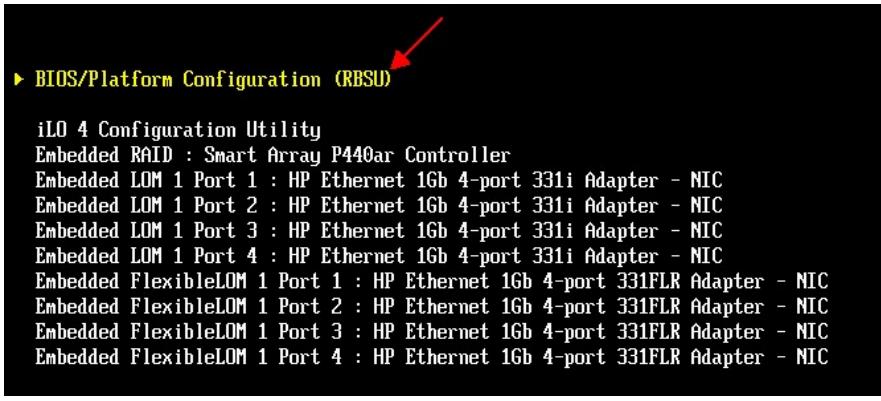
Figure 62 – GEN9 RBSU – Enter RBSU – F9 Pressed indicated in HP Splash Screen

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

**Prerequisites & Requirements:**

- ✓ Server rebooted and in RBSU mode

**Procedure 35. GEN9: Verify/Configure Serial Port Options**

Step	Procedure	Result
1. <input type="checkbox"/>	<p>Press Enter to go into the <b>System Configuration</b> menu then select <b>BIOS/Platform Configuration (RBSU)</b>.</p>	 <p>The screenshot shows the RBSU System Configuration menu. A red arrow points to the 'System Configuration' option, which is highlighted in yellow. Below the menu are three command options: 'Exit and resume system boot', 'Reboot the System', and 'Select Language [English]'. The 'Select Language' option is also highlighted in yellow.</p> <p><b>Figure 63 – GEN9: Select System Configuration</b></p>  <p>The screenshot shows the RBSU BIOS/Platform Configuration menu. A red arrow points to the 'BIOS/Platform Configuration (RBSU)' option, which is highlighted in yellow. Below the menu are eight system component configurations listed in a single column: 'iLO 4 Configuration Utility', 'Embedded RAID : Smart Array P440ar Controller', 'Embedded LOM 1 Port 1 : HP Ethernet 1Gb 4-port 331i Adapter - NIC', 'Embedded LOM 1 Port 2 : HP Ethernet 1Gb 4-port 331i Adapter - NIC', 'Embedded LOM 1 Port 3 : HP Ethernet 1Gb 4-port 331i Adapter - NIC', 'Embedded LOM 1 Port 4 : HP Ethernet 1Gb 4-port 331i Adapter - NIC', 'Embedded FlexibleLOM 1 Port 1 : HP Ethernet 1Gb 4-port 331FLR Adapter - NIC', 'Embedded FlexibleLOM 1 Port 2 : HP Ethernet 1Gb 4-port 331FLR Adapter - NIC', 'Embedded FlexibleLOM 1 Port 3 : HP Ethernet 1Gb 4-port 331FLR Adapter - NIC', and 'Embedded FlexibleLOM 1 Port 4 : HP Ethernet 1Gb 4-port 331FLR Adapter - NIC'.</p> <p><b>Figure 64 – GEN9: Select BIOS/Platform Configuration (RBSU)</b></p>

## Procedure 35. GEN9: Verify/Configure Serial Port Options

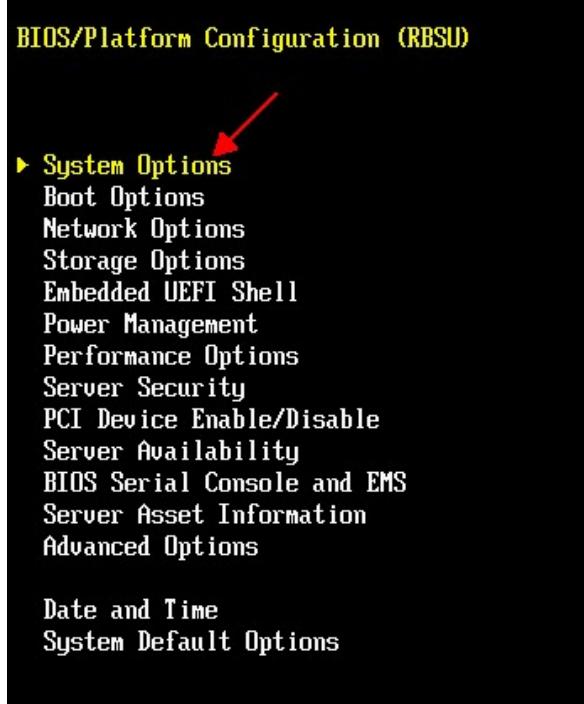
Step	Procedure	Result
2.	Select <b>System Options</b> then select <b>Serial Port Options</b>	 <p>BIOS/Platform Configuration (RBSU)</p> <ul style="list-style-type: none"> <li>▶ <b>System Options</b> <ul style="list-style-type: none"> <li>Boot Options</li> <li>Network Options</li> <li>Storage Options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

Figure 65 – GEN9: ROM-Based Setup Utility – System Options

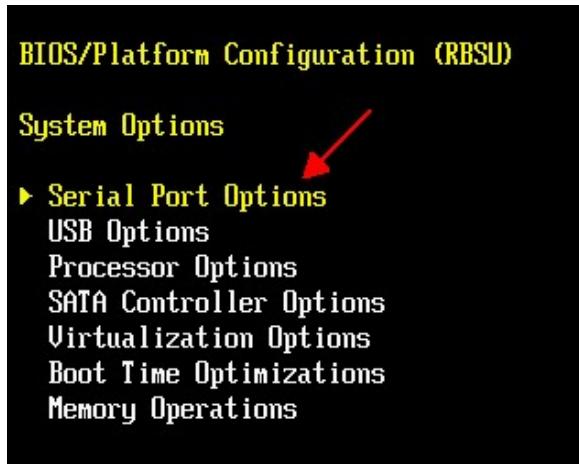


Figure 66 – GEN9: ROM-Based Setup Utility – Serial Port Options

## Procedure 35. GEN9: Verify/Configure Serial Port Options

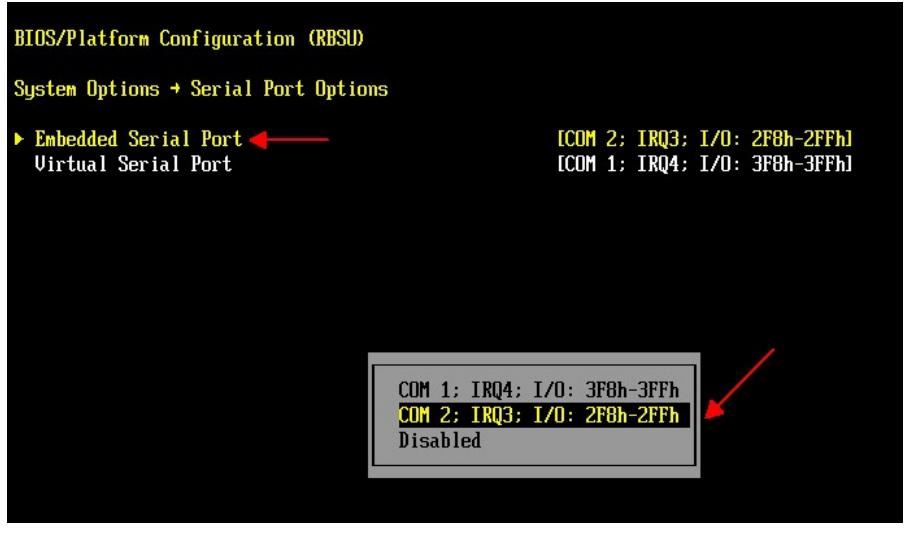
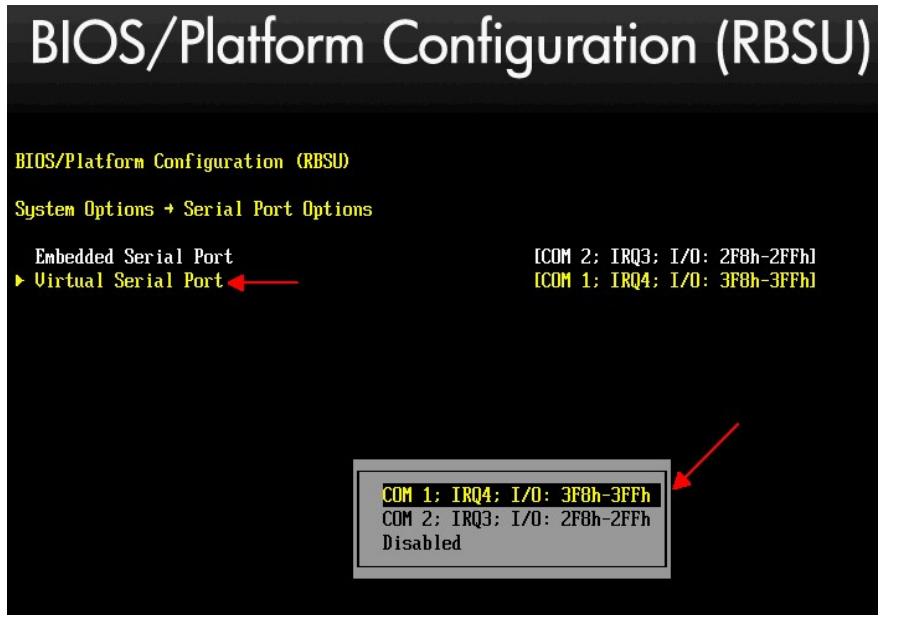
Step	Procedure	Result
3.	<p><b>Verify the settings for Embedded Serial Port:</b></p> <p>Select “<b>Embedded Serial Port</b>” and verify it is set for “<b>COM 2</b>”. If it is not set to <b>COM 2</b>, press <b>[ENTER]</b>, select <b>COM 2</b>, then <b>[ENTER]</b></p>	<p>BIOS/Platform Configuration (RBSU)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

Figure 67 – GEN9: Verify Embedded Serial Port Setting

Figure 68 – GEN9: Verify Virtual Serial Port Setting

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

**Prerequisites & Requirements:**

- ✓ Server rebooted and in RBSU

**Procedure 36. GEN9: Verify/Set Power Management**

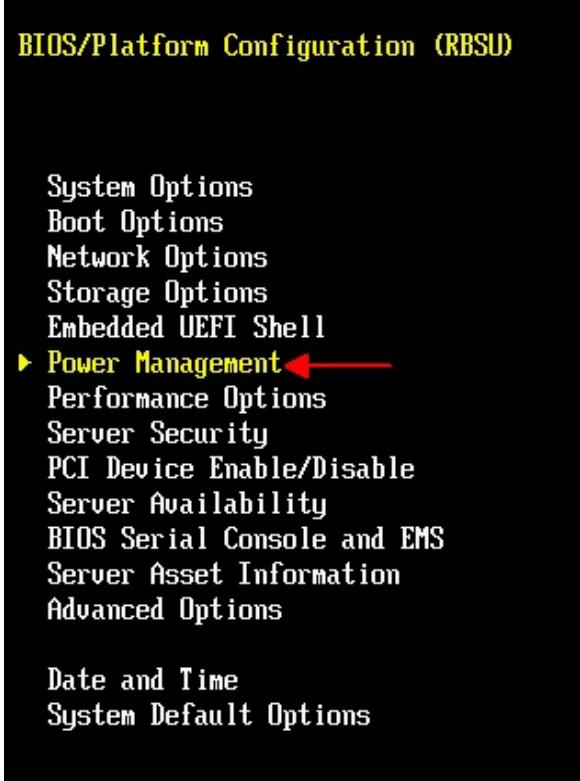
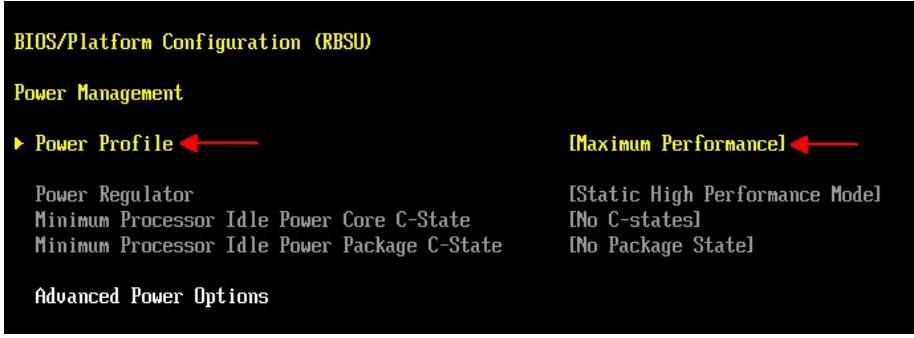
Step	Procedure	Result
1.	<p>While in <b>RBSU</b>, verify/set the <b>HP Power Profile</b>:</p> <p>Select “<b>Power Management</b>”, then press <b>[ENTER]</b></p>	<p><b>BIOS/Platform Configuration (RBSU)</b></p> <p>System Options Boot Options Network Options Storage Options Embedded UEFI Shell ► <b>Power Management</b> ← 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.	<p>After pressing <b>[ENTER]</b> you will see several options to choose from such as:</p> <p><b>Power Profile, Power Regulator, Minimum Processor Idle Power Core C-State, Minimum Processor Idle Power Package C-State and Advanced Power Options</b></p>	<p><b>BIOS/Platform Configuration (RBSU)</b></p> <p><b>Power Management</b></p> <p>► <b>Power Profile</b> ← Power Regulator Minimum Processor Idle Power Core C-State Minimum Processor Idle Power Package C-State Advanced Power Options</p> <p><b>[Maximum Performance]</b> ← [Static High Performance Mode] [No C-states] [No Package State]</p> 

Figure 69 – GEN9: RBSU – Select Power Management

Figure 70 – GEN9: RBSU – Select HP Power Profile and Maximum Performance

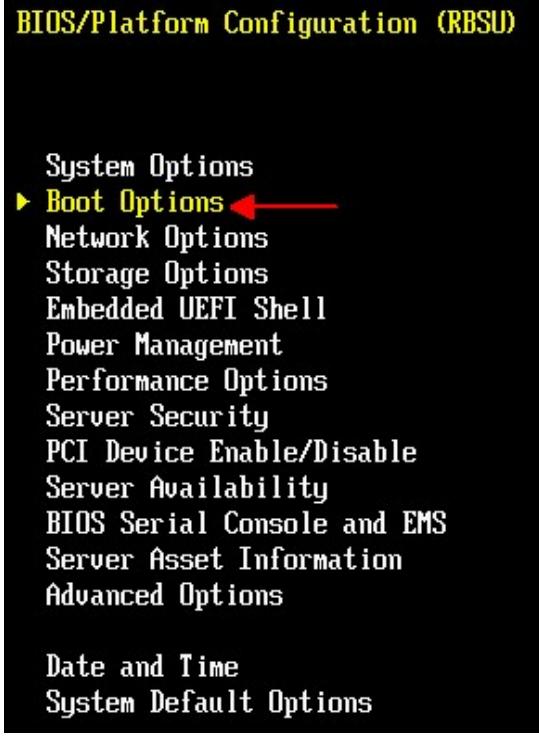
**Procedure 36. GEN9: Verify/Set Power Management**

Step	Procedure	Result
3.	<ul style="list-style-type: none"><li>• Select <b>Power Profile</b>.</li><li>• Verify it is set to <b>Maximum Performance</b></li></ul>	
4.	If not set to <b>Maximum Performance</b> , press <b>[ENTER]</b> and select “ <b>Maximum Performance</b> ”, then press <b>[ENTER]</b>	

**Prerequisites & Requirements:**

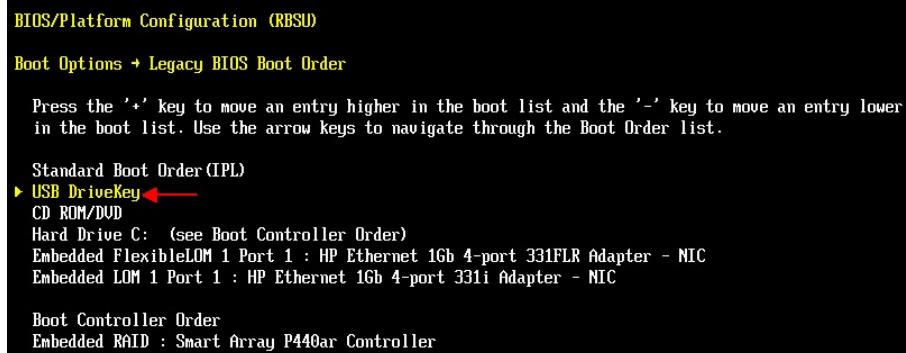
- ✓ Server rebooted and in RBSU

**Procedure 37. GEN9: Verify/Set Standard Boot Order (IPL)**

Step	Procedure	Result
1.	<p>While in RBSU, verify or set the <b>Legacy BIOS Boot Order</b>, Select <b>Boot Options</b>, then press <b>[ENTER]</b>, then select <b>Legacy BIOS Boot Order</b> then press <b>[ENTER]</b></p>	 <p><b>BIOS/Platform Configuration (RBSU)</b></p> <p><b>System Options</b></p> <ul style="list-style-type: none"> <li>▶ <b>Boot Options</b> ←</li> <li>Network Options</li> <li>Storage Options</li> <li>Embedded UEFI Shell</li> <li>Power Management</li> <li>Performance Options</li> <li>Server Security</li> <li>PCI Device Enable/Disable</li> <li>Server Availability</li> <li>BIOS Serial Console and EMS</li> <li>Server Asset Information</li> <li>Advanced Options</li> </ul> <p>Date and Time</p> <p>System Default Options</p>

**Figure 71 – GEN9: Select Boot Options****Figure 72 – GEN9: Select Legacy BIOS Boot Order**

## Procedure 37. GEN9: Verify/Set Standard Boot Order (IPL)

Step	Procedure	Result
2.	<p>Verify under <b>Standard Boot Order (IPL)</b> that <b>USB DriveKey</b> is in the first position and <b>Embedded LOM</b> is in the fourth position. Press “+” or “-” to maneuver to the correct position.</p>	<p><b>Legacy BIOS Boot Order:</b></p> <p><b>USB DriveKey</b></p> <p>CD ROM/DVD</p> <p>Hard Drive C</p> <p><b>Embedded LOM 1 Port 1</b></p> <p>Embedded FlexibleLOM 1 Port 1</p>  <p><b>Figure 73 – Select Set the IP Device Boot Order USB DriveKey</b></p> <p><b>BIOS/Platform Configuration (RBSU)</b></p> <p><b>Boot Options → Legacy BIOS Boot Order</b></p> <p>Press the '+' key to move an entry higher in the boot list and the '-' key to move an entry lower in the boot list. Use the arrow keys to navigate through the Boot Order list.</p> <p>Standard Boot Order (IPL)</p> <p>► <b>USB DriveKey</b> ←</p> <p>CD ROM/DVD</p> <p>Hard Drive C: (see Boot Controller Order)</p> <p>Embedded FlexibleLOM 1 Port 1 : HP Ethernet 1Gb 4-port 331FLR Adapter - NIC</p> <p>Embedded LOM 1 Port 1 : HP Ethernet 1Gb 4-port 331i Adapter - NIC</p> <p>Boot Controller Order</p> <p>Embedded RAID : Smart Array P440ar Controller</p> <p><b>Figure 74 – Select Set the IP Device Boot Order Embedded LOM 1 Port 1</b></p> <p><b>BIOS/Platform Configuration (RBSU)</b></p> <p><b>Boot Options → Legacy BIOS Boot Order</b></p> <p>Press the '+' key to move an entry higher in the boot list and the '-' key to move an entry lower in the boot list. Use the arrow keys to navigate through the Boot Order list.</p> <p>Standard Boot Order (IPL)</p> <p>USB DriveKey</p> <p>CD ROM/DVD</p> <p>Hard Drive C: (see Boot Controller Order)</p> <p>► <b>Embedded LOM 1 Port 1 : HP Ethernet 1Gb 4-port 331i Adapter - NIC</b> ←</p> <p>Embedded FlexibleLOM 1 Port 1 : HP Ethernet 1Gb 4-port 331FLR Adapter - NIC</p> <p>Boot Controller Order</p> <p>Embedded RAID : Smart Array P440ar Controller</p>

**Prerequisites & Requirements:**

- ✓ Server rebooted and in RBSU

**Procedure 38. GEN9: Verify/Set System Date and Time**

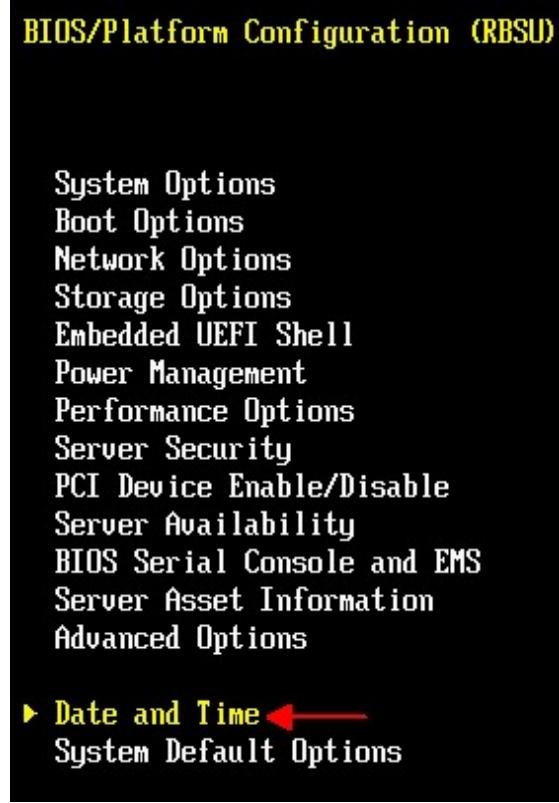
Step	Procedure	Result
1.	While in RBSU, set the system Date and Time: Select “Date and Time”, then press [ENTER]	 <p>BIOS/Platform Configuration (RBSU)</p> <p>System Options Boot Options Network Options Storage Options Embedded UEFI Shell Power Management Performance Options Server Security PCI Device Enable/Disable Server Availability BIOS Serial Console and EMS Server Asset Information Advanced Options</p> <p>► Date and Time ← System Default Options</p>
2.	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>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 [UTC-00:00, Greenwich Mean Time, Dublin, London] Daylight Savings Time [Disabled] Time Format ← [Coordinated Universal Time (UTC)]</p>

Figure 75 – GEN9: Select Date and Time

Figure 76 – GEN9: Set Date and Time (UTC)

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**.

**Prerequisites & Requirements:**

- ✓ Server rebooted and in RBSU

**Procedure 39. GEN9: Verify/Set Server Availability**

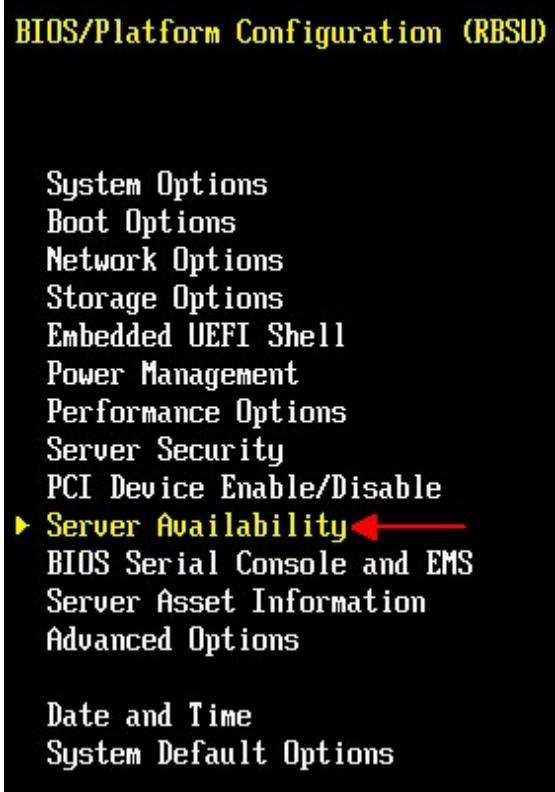
Step	Procedure	Result
1.	While in <b>RBSU</b> , set the <b>Server Availability</b> : Select <b>“Server Availability”</b> , then press <b>[ENTER]</b>	
2.	After pressing <b>[ENTER]</b> you will see several options to choose from including: <b>ASR Status, ASR Timeout, Wake-On LAN, POST F1 Prompt, Power Button Mode, Automatic Power-On and Power-On Delay.</b>	
3.	<ul style="list-style-type: none"> <li>• Select <b>ASR Status</b></li> <li>• Verify it is set to <b>Enabled</b></li> </ul>	

Figure 77 – GEN9: RBSU – Select Server Availability

## Procedure 39. GEN9: Verify/Set Server Availability

Step	Procedure	Result
4.	If not set to <b>Enabled</b> , press <b>[ENTER]</b> and select “ <b>Enabled</b> ”, then press <b>[ENTER]</b>	 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]
5.	Select <b>Automatic Power-On</b>	 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]
6.	Verify <b>Automatic Power-On</b> is set to <b>Restore Last Power State</b>	
7.	If not set to <b>Enabled</b> , press <b>[ENTER]</b> and select “ <b>Enabled</b> ”, then press <b>[ENTER]</b>	
8.	Select <b>Power-On Delay</b>	 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]
9.	Verify <b>Power-On Delay</b> is set to <b>No Delay</b>	

## Procedure 39. GEN9: Verify/Set Server Availability

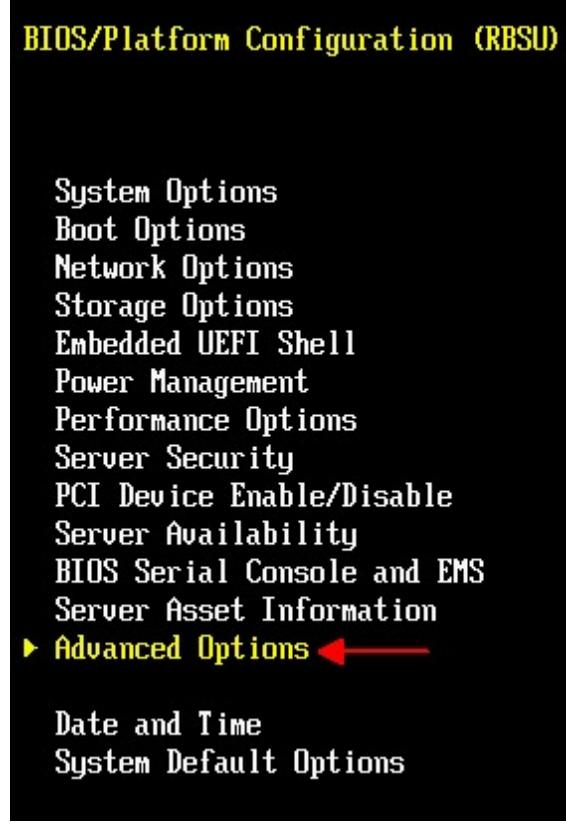
Step	Procedure	Result
10.	If not set to <b>Enabled</b> , press <b>[ENTER]</b> and select “ <b>No Delay</b> ”, then press <b>[ENTER]</b>	
11.	Select <b>POST F1 Prompt</b>	 <pre> BIOS/Platform Configuration (RBSU) Server Availability ASR Status [Enabled] ASR Timeout [10 Minutes] Wake-On LAN [Enabled] ▶ POST F1 Prompt [Delayed 20 seconds] ← Power Button Mode [Enabled] Automatic Power-On [Restore Last Power State] Power-On Delay [No Delay] </pre>
		<b>Figure 81 – GEN9: RBSU – Verify Post F1 Prompt is Set to Delayed 20 Seconds</b>
12.	Verify <b>Delayed 20 seconds</b> is set	
13.	If not set to <b>Delayed 20 seconds</b> , press <b>[ENTER]</b> and select “ <b>Delayed 20 seconds</b> ”, then press <b>[ENTER]</b>	

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

**Prerequisites & Requirements:**

- ✓ Server rebooted and in RBSU

**Procedure 40. GEN9: Verify Advanced Options**

Step	Procedure	Result
1. <input type="checkbox"/>	While in <b>RBSU</b> , set the <b>Advanced Options</b> Select “ <b>Advanced Options</b> ”, then press <b>[ENTER]</b>	 <p><b>BIOS/Platform Configuration (RBSU)</b></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 ► <b>Advanced Options</b> ← Date and Time System Default Options</p>
2.	After pressing <b>[ENTER]</b> you will see several options to choose from including: <i>ROM Selection, Embedded Video Connection, Fan and Thermal Options, Advanced System ROM options.</i>	
3.	Select <b>Fan and Thermal Options</b>	

## Procedure 40. GEN9: Verify Advanced Options

Step	Procedure	Result
4.	Verify <b>Thermal Configuration</b> is set for <b>Optimal Cooling</b>	<p>BIOS/Platform Configuration (RBSU)  Advanced Options → Fan and Thermal Options</p> <p>► Thermal Configuration ← [Optimal Cooling] ← [Enabled] ← [Enable Messaging] ← [Shutdown/Halt on Critical Fan Failures] ← [Disabled]</p> <p>Thermal Shutdown  Fan Installation Requirements  Fan Failure Policy  Extended Ambient Temperature Support</p>
5.	If not set to <b>Optimal Cooling</b> , press [ENTER] and select “Optimal Cooling”, then press [ENTER]	

Figure 83 – GEN9: RBSU – Verify Fan and Thermal Options

## Prerequisites & Requirements:

Tasks within the RBSU have been completed.

### Procedure 41. GEN9: Save and Exit the RBSU

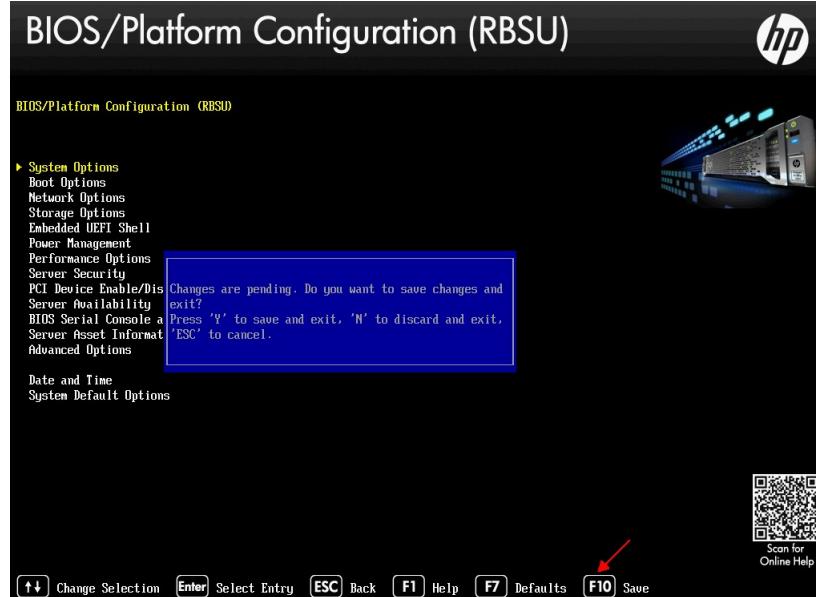
Step	Procedure	Result
1.	<p>Press <b>F10</b> to save changes then Enter “<b>Y</b>” to confirm changes. the <b>RBSU</b>, press <b>&lt;ESC&gt;</b> and then press <b>&lt;F10&gt;</b> to Confirm Exit Utility</p>	 <p><b>BIOS/Platform Configuration (RBSU)</b></p> <p>BIOS/Platform Configuration (RBSU)</p> <ul style="list-style-type: none"> <li>System Options           <ul style="list-style-type: none"> <li>Boot Options</li> <li>Network Options</li> <li>Storage Options</li> <li>Embedded UEFI Shell</li> <li>Power Management</li> <li>Performance Options</li> <li>Server Security</li> <li>PCI Device Enable/Disable</li> <li>Server Availability</li> <li>BIOS Serial Console and EMS</li> <li>Server Asset Information</li> <li>Advanced Options</li> </ul> </li> </ul> <p>Date and Time System Default Options</p> <p>Change Selection Enter Select Entry ESC Back F1 Help F7 Defaults F10 Save</p>

Figure 84 – GEN9: RBSU – Save Changes and Confirm

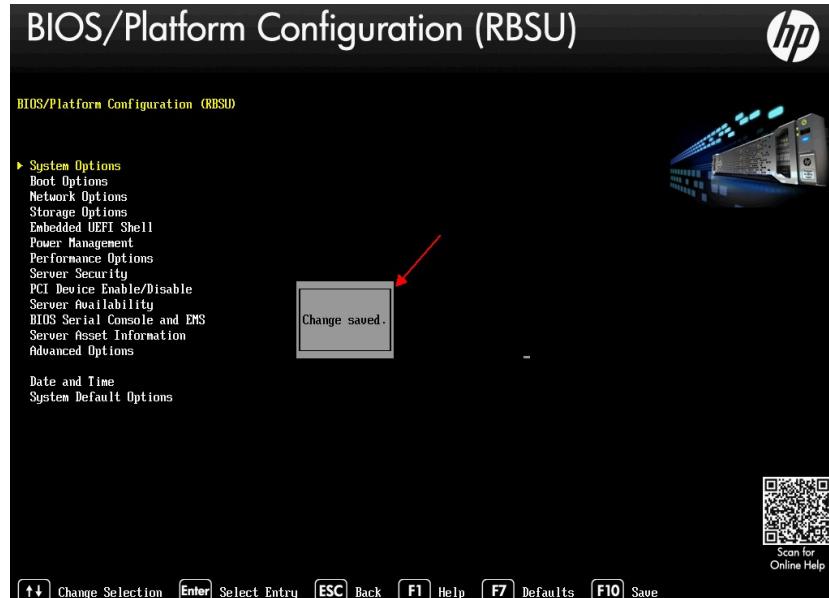


Figure 85 – GEN9: RBSU – Changes Saved

## Procedure 41. GEN9: Save and Exit the RBSU

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 Select Language</p> <p>Press ENTER to exit and resume normal boot or ESC to cancel. Enter (EXIT)   ESC (CANCEL)</p> <p>↑↓ Change Selection   Enter Select Entry   <b>ESC</b> Exit   F1 Help   F7 Defaults</p> <p>Scan for Online Help</p>
<b>THIS PROCEDURE HAS BEEN COMPLETED</b>		

## **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:

For technical issues such as creating a new Service Request (SR), select 1.

For non-technical issues such as registration or assistance with MOS, select 2.

You are connected to a live agent who can assist you with MOS registration and opening a support ticket. MOS is available 24 hours a day, 7 days a week, 365 days a year.

### **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.