

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

**SDS Initial Installation and Configuration User's Guide**

Release 7.1/7.2

**E58856, Revision 04**

March 2016

Oracle® Communications Diameter Signal Router Full Address Resolution, SDS Initial Installation and Configuration User's Guide, Release 7.1/7.2.

Copyright © 2016

Oracle and/or its affiliates. All rights reserved.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information on content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.

## TABLE OF CONTENTS

1.0	INTRODUCTION .....	5
1.1	Purpose and Scope .....	5
1.2	References.....	5
1.3	Acronyms.....	5
1.4	Assumptions .....	7
1.5	XML Files.....	7
1.6	How to use this Document.....	7
2.0	PRE-INSTALLATION SETUP.....	8
2.1	Installation Prerequisites.....	8
2.2	Physical Connections.....	8
2.3	Access Alternatives for Application Install .....	9
2.4	Activity Logging.....	9
3.0	INSTALLATION MATRIX.....	10
3.1	Installing SDS on the Customer Network.....	10
4.0	APPLICATION INSTALL.....	13
4.1	Installing the SDS Application (All SDS NOAM sites) .....	13
5.0	CONFIGURATION PROCEDURES.....	19
5.1	Configuring SDS Servers A and B (1 <sup>st</sup> SDS NOAM site only) .....	19
5.2	OAM Pairing (1 <sup>st</sup> SDS NOAM site only) .....	37
5.3	Query Server Installation (All SDS NOAM sites).....	51
5.4	OAM Installation for the DR SDS NOAM site .....	68
5.5	OAM Pairing for DR SDS NOAM site .....	82
5.6	Add SDS software images to PMAC servers (All SOAM sites) .....	93
5.7	OAM Installation for SOAM sites (All SOAM sites).....	97
5.8	OAM Pairing for SDS SOAM sites (All SOAM sites).....	121
5.9	DP Installation (All SOAM sites).....	133
5.10	Configuring ComAgent .....	162
Appendix A.	ACCESSING THE ILO VGA REDIRECTION WINDOW .....	165
Appendix B.	HP DL360 BIOS SETTINGS .....	167
Appendix C.	CREATING TEMPORARY EXTERNAL IP ADDRESS FOR ACCESSING SDS GUI.....	170
Appendix D.	ESTABLISHING A LOCAL CONNECTION FOR ACCESSING THE SDS GUI.....	171
Appendix E.	CONFIGURE CISCO 4948E-F AGGREGATION SWITCHES .....	174
E.1	Verifying Cisco Switch Wiring (All SDS NOAM sites) .....	175
E.2	Configure Cisco 4948E-F Aggregation Switches .....	178
E.3	Cisco 4948E-F IOS Upgrade (All SDS NOAM sites).....	204
E.4	Cisco 4948E-F Configuration Backup (All SDS NOAM sites).....	213
Appendix F.	CREATING AN XML FILE FOR INSTALLING NETWORK ELEMENTS .....	215
Appendix G.	NETBACKUP CLIENT INSTALLATION .....	218
Appendix H.	LIST OF FREQUENTLY USED TIME ZONES .....	219
Appendix I.	ACCEPTING INSTALLATION THROUGH SDS NOAM GUI.....	222
Appendix J.	DISABLE HYPERTHREADING (DP ONLY) .....	225

## List of Tables

<b>Table 1</b> - Acronyms .....	6
<b>Table 2</b> - SDS Installation Matrix.....	10
<b>Table 3</b> - SDS Installation: List of Procedures .....	12
<b>Table 4</b> - SDS Network Element Configuration File (IPv4) .....	216
<b>Table 5</b> - SDS Network Element Configuration File (IPv6) .....	217
<b>Table 6</b> - List of Selected Time Zone Values .....	219

## List of Figures

<b>Figure 1</b> - HP DL360, DC (Rear Panel) .....	8
<b>Figure 2</b> - HP DL380 Gen8, DC (Rear Panel) .....	9
<b>Figure 3</b> - HP DL360 G6 Front Panel (USB Port) .....	14
<b>Figure 4</b> - HP DL380 Gen8, Front Panel (USB Port) .....	14
<b>Figure 5</b> - HP DL360 G6, Rear Panel (Ethernet) .....	35
<b>Figure 6</b> - HP DL380 Gen8, Rear Panel (Ethernet) .....	35
<b>Figure 7</b> - Cisco 4948E-F Switch (Maintenance Access Port) .....	35
<b>Figure 8</b> - SDS Frame Layout .....	174
<b>Figure 9</b> - Cisco 4948E-F Switch ISL Connections .....	175
<b>Figure 10</b> - Cisco 4948E-F Switch (Console Port) .....	176
<b>Figure 11</b> - HP DL380 Gen8, Rear Panel (Quad-Serial Ports) .....	176
<b>Figure 12</b> - HP DL360 G6, Rear Panel (Quad-Serial Ports).....	176
<b>Figure 13</b> - Cisco 4948E-F Switch (Ethernet Ports).....	177

## 1.0 INTRODUCTION

### 1.1 Purpose and Scope

This document describes how to install the Oracle® Communications Diameter Signal Router Full Address Resolution product also known as “Eagle XG Subscriber Data Server (SDS)” within a customer network. It makes use of the Platform 7.0 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 7.1/7.2 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 DL360 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 7.1/7.2 Base Hardware and Software Installation Procedure 1/2*, E53488, Latest Revision
- [4] *DSR 7.0/7.1 Software Installation & Configuration Procedure 2/2*, E58954, Latest Revision
- [5] *DSR 7.2 Software Installation & Configuration Procedure 2/2*, E69409, Latest Revision

#### Internal (ORACLE Communications Personnel Only):

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

### 1.3 Acronyms

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

**Table 1 - Acronyms**

## 1.4 Assumptions

This procedure assumes the following;

- The user has reviewed the latest Network Architecture Planning Document (NAPD) [9] 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 [9] and used them to compile XML files (See **Appendix F**) 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 [9].
- 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 7.0 of correct version as described in [10].
- SDS 7.2 does not support DL360 Gen6.

## 1.5 XML Files

The XML files compiled for installation of 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 Tekelec 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 Tekelec Customer Service for assistance before attempting to continue. See **Appendix K - Accessing My Oracle Support (MOS)**, for information on contacting Oracle Customer Support.

## 2.0 PRE-INSTALLATION SETUP

### 2.1 Installation Prerequisites

The following items/settings are required in order to perform installation for HP DL360 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 7.x or 8.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.

**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 DL360 rear panel or a connection to the iLO is required to initiate and monitor the progress of SDS installation procedures.

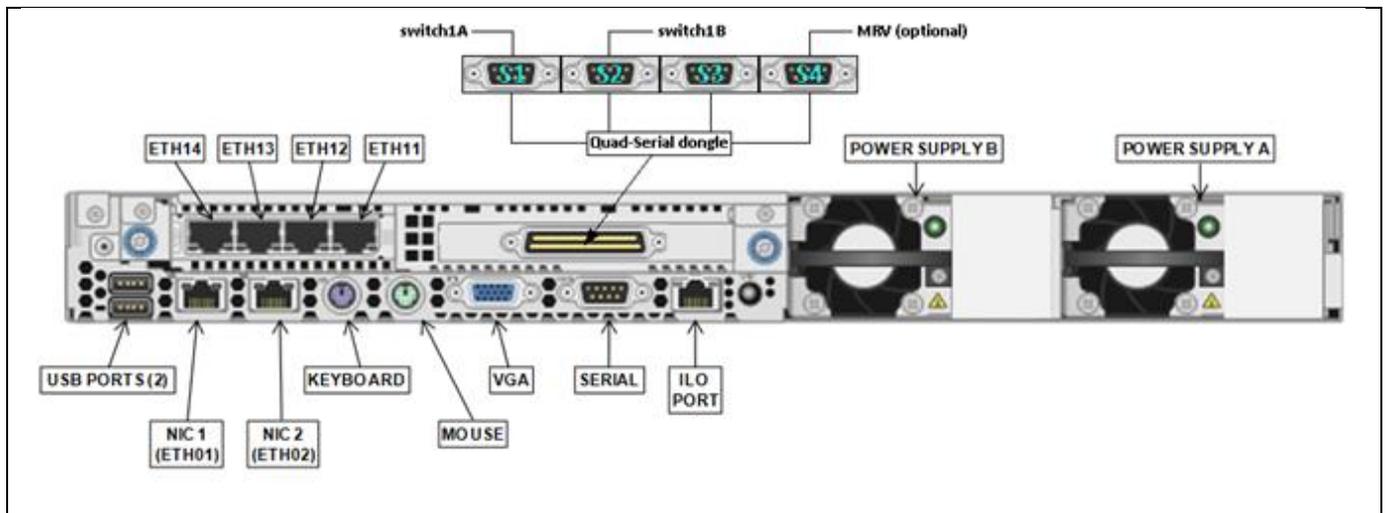


Figure 1 - HP DL360, DC (Rear Panel)

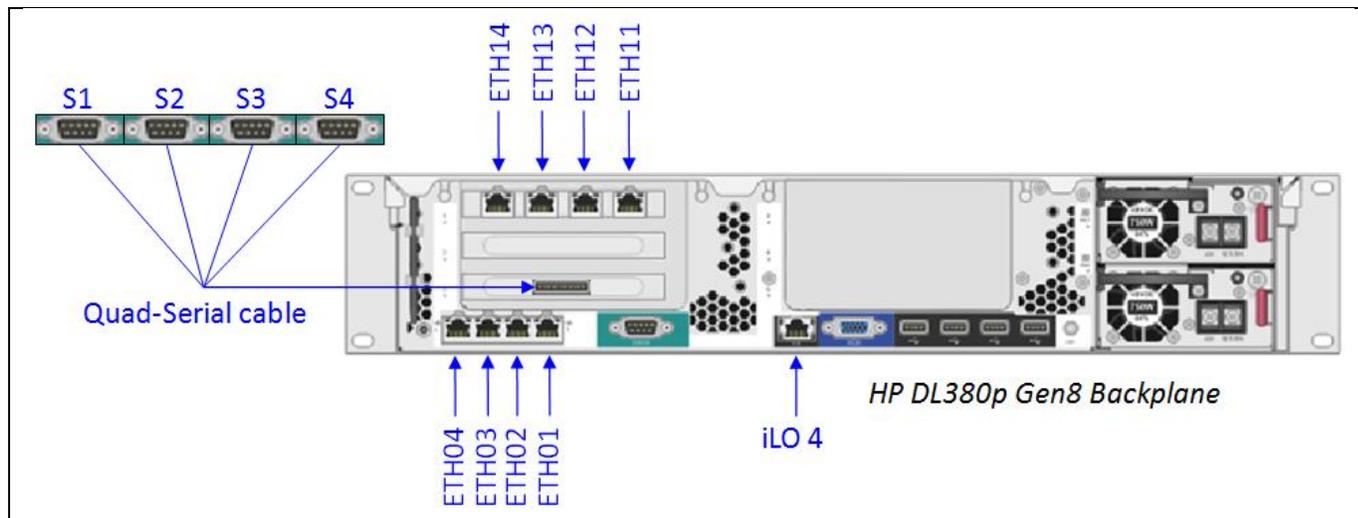


Figure 2 - HP DL380 Gen8, DC (Rear Panel)

### 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>	<input type="checkbox"/> <b>Method 1)</b> VGA Monitor and PS2 Keyboard.
<p><b>NOTE:</b> Methods 3 &amp; 4 may only be used on an HP DL360/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>	<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.).

### 3.0 INSTALLATION MATRIX

#### 3.1 Installing SDS on the Customer Network

Installing the SDS product is a task which requires multiple installations of varying types. The matrix below provides a guide to the user as to which procedures are to be performed on which server types. The user should be aware that this document only covers the necessary configuration required to complete product install. Refer to the online help or contact the Oracle’s Tekelec Customer Care Center 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 1<sup>st</sup> installation of a SDS pair on the customer network while references to the “DR SDS” site refers to the 2<sup>nd</sup> SDS pair to be installed.

#### SDS Installation Matrix

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

Table 2 - SDS Installation Matrix



**SDS Installation: List of Procedures**

<b>Procedure No :</b>	<b>Title :</b>	<b>Page No :</b>
1	Installing the SDS Application (All SDS NOAM sites)	13
2	Configuring SDS Servers A and B (1st SDS NOAM site only)	19
3	OAM Pairing (1st SDS NOAM site only)	37
4	Query Server Installation (All SDS NOAM sites)	51
5	OAM Installation for the DR SDS NOAM site	68
6	OAM Pairing for DR SDS NOAM site	82
7	Add SDS software images to PMAC servers (All SOAM sites)	93
8	OAM Installation for SOAM sites (All SOAM sites)	97
9	OAM Pairing for SDS SOAM sites (All SOAM sites)	121
10	DP Installation (All SOAM sites)	133
11	Configuring ComAgent	162
E.1	Verifying Cisco Switch Wiring (All SDS NOAM sites)	175
E.2	Configure Cisco 4948E-F Aggregation Switches	178
E.3	Cisco 4948E-F IOS Upgrade (All SDS NOAM sites)	204
E.4	Cisco 4948E-F Configuration Backup (All SDS NOAM sites)	213
J	Disable Hyperthreading (DP Only)	225

**Table 3** - SDS Installation: List of Procedures

## 4.0 APPLICATION INSTALL

### 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] before beginning this procedure.

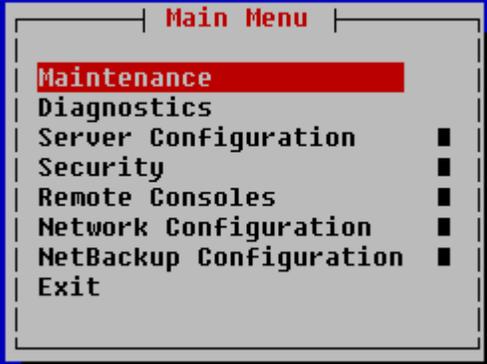
**Procedure 1: Installing the SDS Application (All SDS NOAM sites)**

Step	Procedure	Result
1. <input type="checkbox"/>	Access the HP server's console.	Connect to the HP DL360/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: <code>admusr</code> Using keyboard-interactive authentication. Password: <code>&lt;admusr_password&gt;</code>
3. <input type="checkbox"/>	Verify that Date & Time are displayed in <b>GMT</b> (+/- 4 min.).	<code>\$ date -u</code> Wed Oct 22 14:07:12 UTC 2014 <code>\$</code>
 <p><b>IF THE CORRECT DATE &amp; TIME (IN GMT) ARE NOT SHOWN IN THE PREVIOUS STEP, THEN STOP THIS PROCEDURE AND PERFORM THE FOLLOWING STEPS:</b></p> <ul style="list-style-type: none"> <li>1) Execute <b>Appendix B - HP DL360/DL 380 BIOS Settings</b></li> <li>2) Restart <b>Procedure 1</b> beginning with <b>Step 1</b>.</li> </ul> <p><b>IF THE CORRECT DATE &amp; TIME (IN GMT) ARE SHOWN IN THE PREVIOUS STEP, THEN CONTINUE ON TO STEP 4 OF THIS PROCEDURE.</b></p>		
4. <input type="checkbox"/>	Verify that the TPD release is <b>7.0</b>	<code>\$ getPlatRev</code> 7.0.0.0.0-86.12.0
5. <input type="checkbox"/>	Execute <code>alarmMgr</code> command to verify any alarms of the server before the application install.	<code>\$ alarmMgr --alarmStatus</code>  <i><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 Oracle's Tekelec Customer Care center for the assistance.</i>

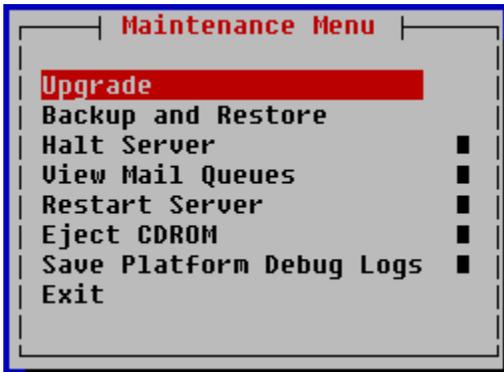
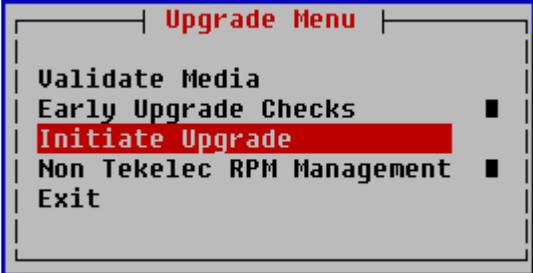
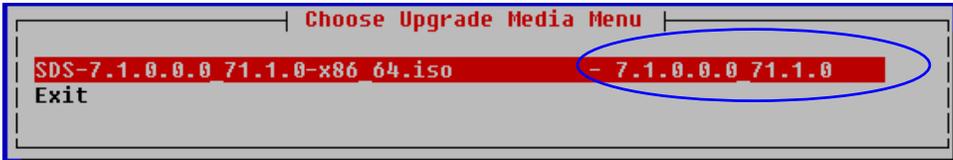
**Procedure 1: Installing the SDS Application (All SDS NOAM sites)**

Step	Procedure	Result
<p>6.</p> <input type="checkbox"/>	<p>Execute <b>“syscheck”</b> to verify the state of the server before Application install.</p>	<pre>\$ sudo syscheck Running modules in class hardware...                                 OK Running modules in class disk...                                 OK Running modules in class net...                                 OK Running modules in class system...                                 OK Running modules in class proc...                                 OK LOG LOCATION: /var/TKLC/log/syscheck/fail_log</pre> <p><b>NOTE:</b> The user should stop and resolve any errors returned from “syscheck” before continuing on to the next step.</p>
<p>7.</p> <input type="checkbox"/>	<p>Execute <b>verifyUpgrade</b> command to verify health of the server before the application install.</p>	<pre>\$ sudo verifyUpgrade</pre> <p><b>NOTE:</b> This command should return no output on a healthy system. If any errors are reported, please stop and contact Oracle’s Tekelec Customer Care center for the assistance.</p>
<p>8.</p> <input type="checkbox"/>	<p>Verify server hardware is DL360 or DL380.</p>	<pre>\$ hardwareInfo   grep Hardware Hardware ID: ProLiantDL360G6 - Or - Hardware ID: ProLiantDL380pGen8</pre>
<p>9.</p> <input type="checkbox"/>	<p>Place the <b>USB drive</b> containing the <b>SDS Application software</b> into the server’s USB port.</p>	 <p><b>Figure 3 - HP DL360 G6 Front Panel (USB Port)</b></p>  <p><b>Figure 4 - HP DL380 Gen8, Front Panel (USB Port)</b></p>
<p>10.</p> <input type="checkbox"/>	<p>Verify that the USB drive has been mounted under the <b>/media</b> directory.</p>	<pre>\$ df  grep sdb /dev/sdb1          2003076      8  2003068   1% /media/sdb1</pre>
<p>11.</p> <input type="checkbox"/>	<p>Verify that the <b>target release</b> is present on the USB drive.</p>	<pre>\$ ls /media/sdb1/ SDS-7.1.0.0.0_71.9.0-x86_64.iso</pre>

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

Step	Procedure	Result
<p>12.</p> <input type="checkbox"/>	<p>Copy the target release to the server's hard disk under the <b>/var/TKLC/upgrade</b> directory.</p>	<pre>\$ cp -p /media/sdb1/SDS-7.1.0.0.0_71.9.0-x86_64.iso /var/TKLC/upgrade/</pre>
<p>13.</p> <input type="checkbox"/>	<p>Unmount the USB drive partition.</p>	<pre>\$ sudo umount /media/sdb1</pre> <pre>\$</pre>
<p>14.</p> <input type="checkbox"/>	<p>Remove the <b>USB drive</b> from the server's front panel.</p>	 <p><b>Figure 3 - HP DL360 G6 Front Panel: USB Port</b></p>  <p><b>Figure 4 - HP DL380 Gen8, Front Panel: USB Port</b></p>
<p>15.</p> <input type="checkbox"/>	<p>Login to the "platcfg" utility.</p>	<pre>\$ su - platcfg</pre>
<p>16.</p> <input type="checkbox"/>	<p>From the "platcfg" Main Menu...</p> <p>Select <b>Maintenance</b> then press the <b>&lt;ENTER&gt;</b> key</p>	

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

Step	Procedure	Result
<p>17.</p> <p><input type="checkbox"/></p>	<p>From the “<b>platcfg</b>” Main Menu...</p> <p>Select <b>Upgrade</b> then press the &lt;ENTER&gt; key</p>	
<p>18.</p> <p><input type="checkbox"/></p>	<p>From the “<b>platcfg</b>” Main Menu...</p> <p>Select <b>Initiate Upgrade</b> then press the &lt;ENTER&gt; key</p>	
<p>19.</p> <p><input type="checkbox"/></p>	<p>Verify that SDS application release shown matches the target release.</p> <p>Press the &lt;ENTER&gt; key to start the SDS application install</p>	
<p>20.</p> <p><input type="checkbox"/></p>	<p>Output similar to that shown on the right may be observed as the SDS application install progresses.</p>	<pre> Determining if we should upgrade... Install product is 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>

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

Step	Procedure	Result
21. <input type="checkbox"/>	Output similar to that shown on the right may be observed at the completion of the Application install.	<pre> Executing da01_sds_app_enable.sh... da01_sds_app_enable.sh: 'Nothing to do if fresh install.' Applications Enabled. Running /usr/TKLC/plat/bin/service_conf reconfig  UPGRADE IS COMPLETE  Waiting for reboot Updating platform revision file...  A reboot of the server is required. The server will be rebooted in 10 seconds </pre>
22. <input type="checkbox"/>	After the server has completed reboot, log into the HP server as the "admusr" user.	<pre> login: admusr Using keyboard-interactive authentication. Password: &lt;admusr_password&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> \$ grep COMPLETE /var/TKLC/log/upgrade/upgrade.log 1321462900:: UPGRADE IS COMPLETE </pre>
24. <input type="checkbox"/>	Verify that SDS application release shown matches the target release.	<pre> \$ rpm -qa  grep sds TKLCsds-7.1.0-7.1_71.9.0.x86_64 </pre>
25. <input type="checkbox"/>	Accept upgrade to the Application Software.	<pre> \$ sudo /var/TKLC/backout/accept Called with options: --accept Loading Upgrade::Backout::RPM Accepting Upgrade Setting POST_UPGRADE_ACTION to ACCEPT in upgrade info. Cleaning backout directory. Clearing Upgrade Accept/Reject alarm. Cleaning message from MOTD. Cleaning up RPM config backup files... Checking / Checking /boot Checking /tmp Checking /usr Checking /var Checking /var/TKLC/rundb Starting cleanup of RCS repository. INFO: Removing '/var/lib/prelink/force' from RCS repository INFO: Removing '/etc/my.cnf' from RCS repository </pre>
26. <input type="checkbox"/>	Put the server in trusted time mode	<pre> \$ tw.setdate -trusted  Current time: 10/22/2014 16:25:07.869 </pre>

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

Step	Procedure	Result
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. Server A, Server B, Query Server)</li> </ul>	
<p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>		

## 5.0 CONFIGURATION PROCEDURES

### 5.1 Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM site only)

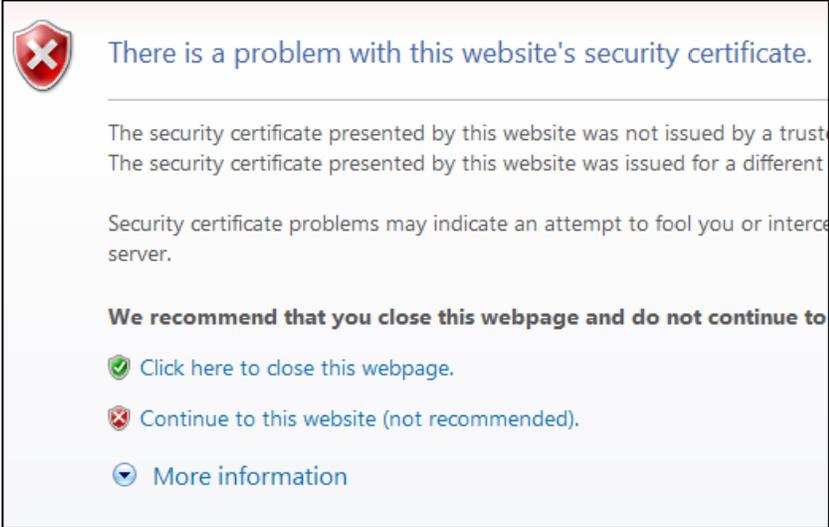
Assumptions:

- This procedure assumes that the SDS Network Element XML file for the Primary Provisioning SDS site has previously been created, as described in **Appendix F**.
- 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.

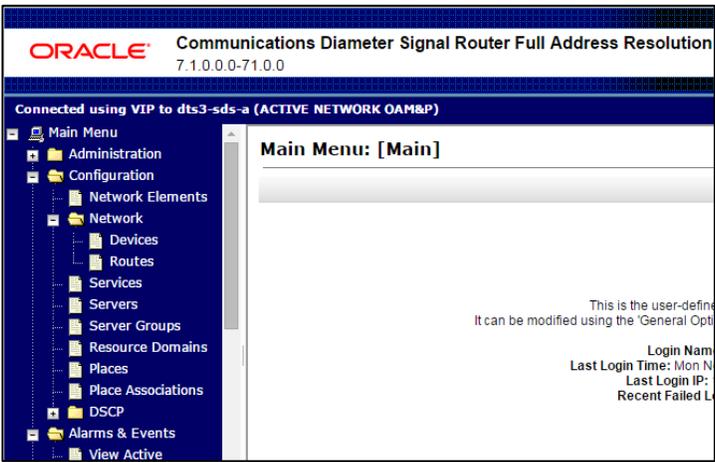
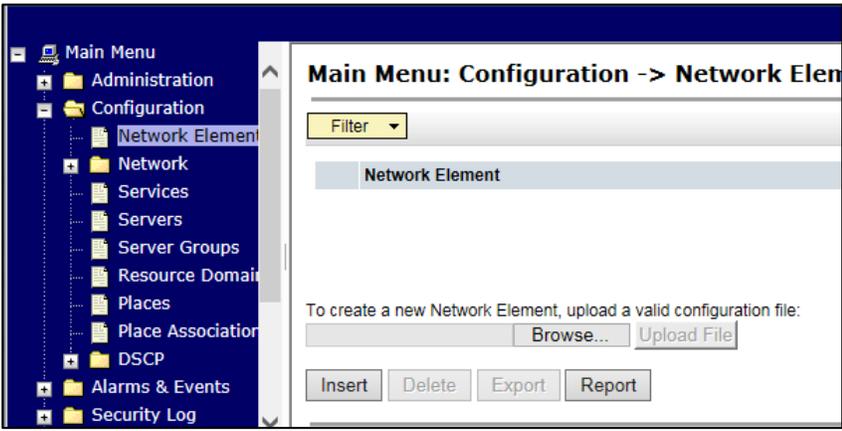
This procedure requires that the user connects to the SDS GUI prior to configuring the first SDS server. This can be done either by one of two procedures:

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

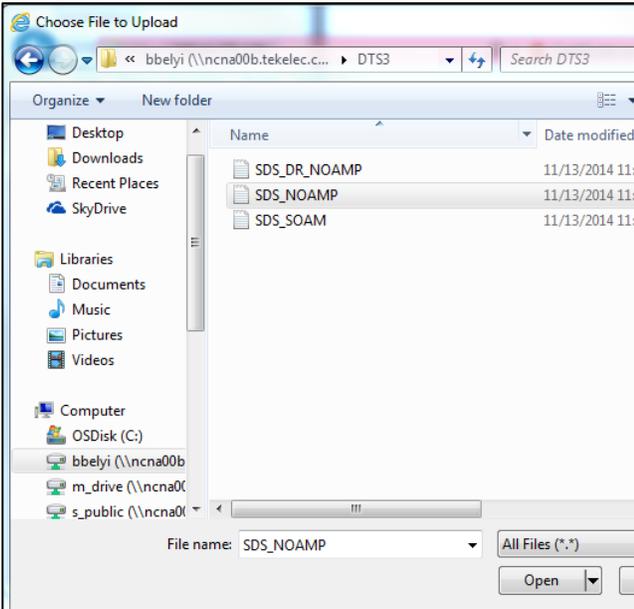
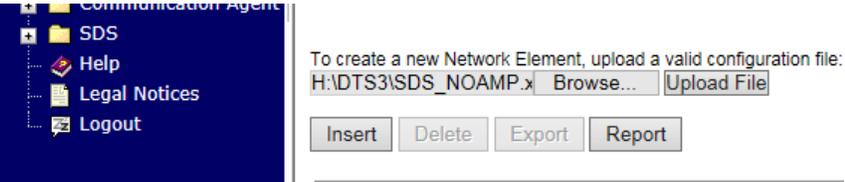
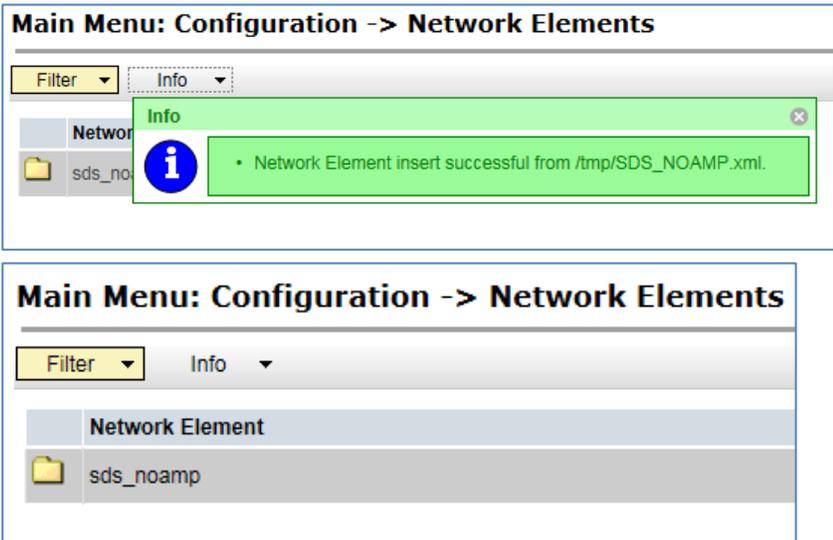
**Procedure 2:** Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM site only)

Step	Procedure	Result
<p>1.</p> <input type="checkbox"/>	<p><b>SDS Server A:</b></p> <p>Connect to the SDS GUI.</p>	<ul style="list-style-type: none"> <li>• Execute <b>Appendix D</b>. <i>Establishing a Local Connection for Accessing the SDS GUI</i></li> </ul>
<p>2.</p> <input type="checkbox"/>	<p><b>SDS Server A:</b></p> <p>Launch an approved web browser and connect to the SDS Server A IP address using <a href="https://192.168.100.11">https://192.168.100.11</a></p> <p><b>NOTE:</b> <i>If presented with the "security certificate" warning screen shown to the right, choose the following option:</i></p> <p><i>"Continue to this website (not recommended)".</i></p>	

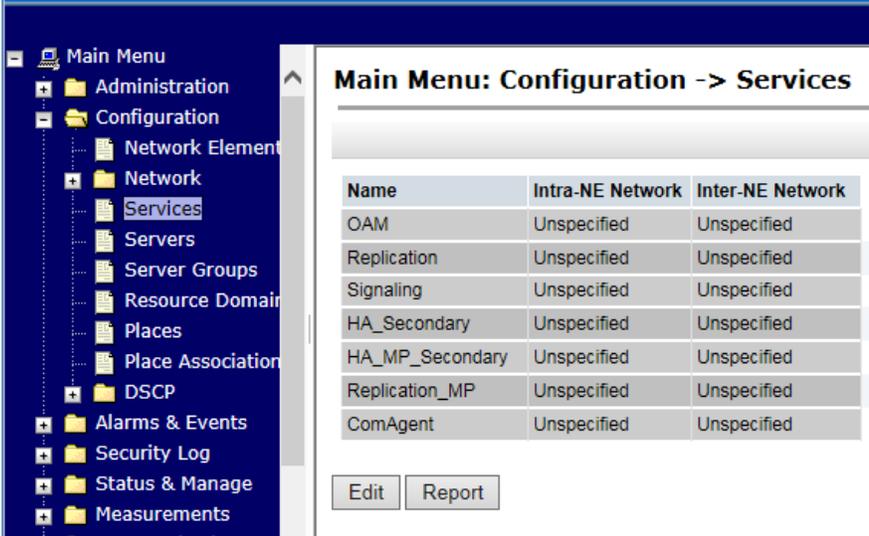
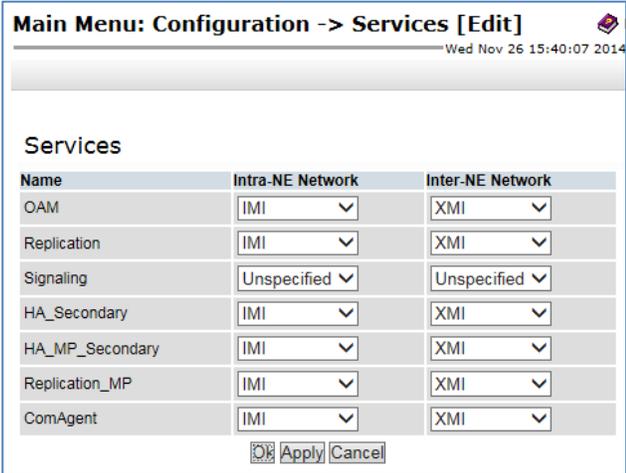
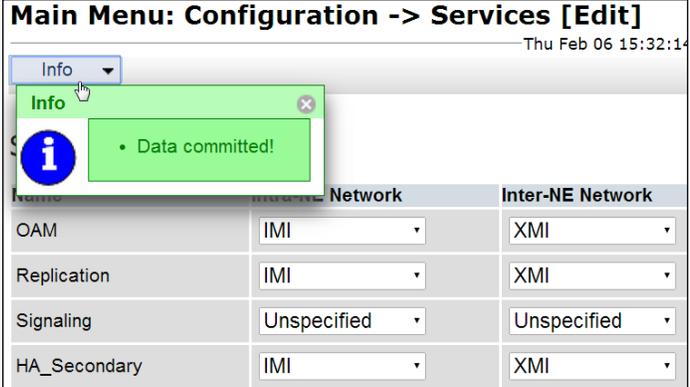
**Procedure 2:** Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM site only)

Step	Procedure	Result
<p>3.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server 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>	
<p>4.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A:</b></p> <p>The user should be presented the SDS Main Menu as shown on the right.</p>	
<p>5.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A:</b></p> <p>1) Select...</p> <p><b>Main Menu</b>          → <b>Configuration</b>          → <b>Network Elements</b>          ...as shown on the right.</p> <p>2) Select the "Browse" dialogue button (scroll to bottom left corner of screen).</p>	

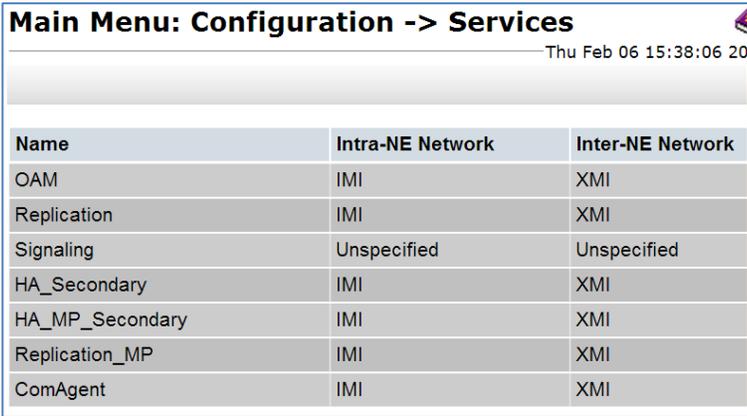
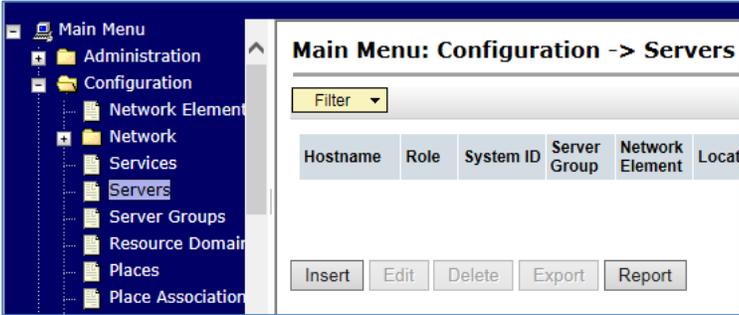
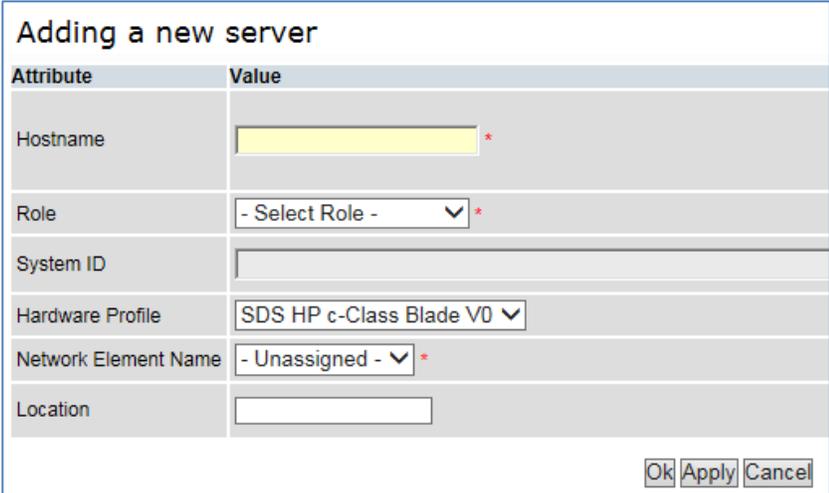
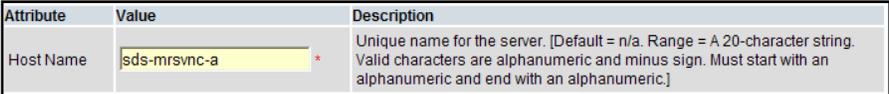
Procedure 2: Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM site only)

Step	Procedure	Result
<p>6.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A:</b></p> <p><b>Note:</b> This step assumes that the <b>xml</b> files were previously prepared, as described in <b>Appendix F</b>.</p> <p>1) Select the location containing the site <b>.xml</b> file.</p> <p>2) Select the <b>.xml</b> file and click the <b>“Open”</b> dialogue button.</p>	
<p>7.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A:</b></p> <p>Select the <b>“Upload File”</b> dialogue button (bottom left corner of screen).</p>	
<p>8.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server 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>	

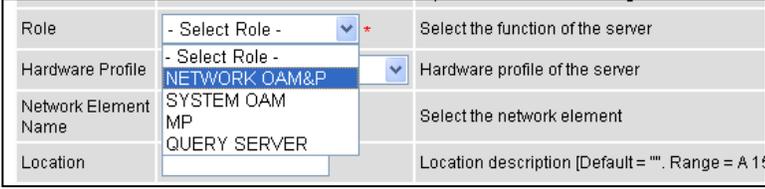
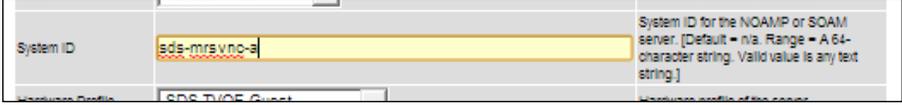
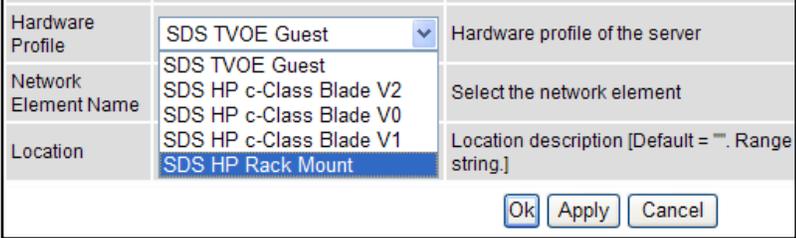
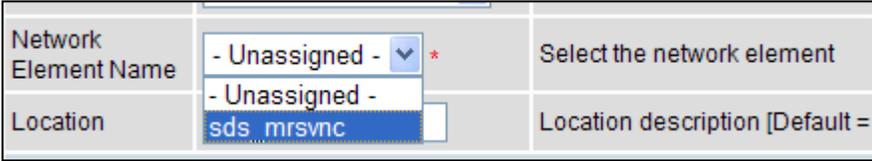
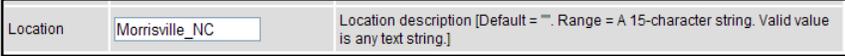
Procedure 2: Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM site only)

Step	Procedure	Result
<p>9.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A:</b></p> <p>1) Select...</p> <p><b>Main Menu</b>                      → <b>Configuration</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>	
<p>10.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server 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>11.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A:</b></p> <p>1) The user should now click the “<b>Info</b>” tab to be presented with a banner information message stating “<b>Data committed</b>”</p> <p>2) Select the “<b>Ok</b>” dialogue button.</p>	

**Procedure 2:** Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM site only)

Step	Procedure	Result																								
<p>12.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A:</b></p> <p>The user will be presented with the “<b>Services</b>” configuration screen as shown on the right</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>Unspecified</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	Unspecified	HA_Secondary	IMI	XMI	HA_MP_Secondary	IMI	XMI	Replication_MP	IMI	XMI	ComAgent	IMI	XMI
Name	Intra-NE Network	Inter-NE Network																								
OAM	IMI	XMI																								
Replication	IMI	XMI																								
Signaling	Unspecified	Unspecified																								
HA_Secondary	IMI	XMI																								
HA_MP_Secondary	IMI	XMI																								
Replication_MP	IMI	XMI																								
ComAgent	IMI	XMI																								
<p>13.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server 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 Server A and SDS Server B.</p>																								
<p>14.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A:</b></p> <p>The user is now presented with the “<b>Adding a new server</b>” configuration screen.</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 - ▾ *</td> </tr> <tr> <td>System ID</td> <td><input type="text"/></td> </tr> <tr> <td>Hardware Profile</td> <td>SDS HP c-Class Blade V0 ▾</td> </tr> <tr> <td>Network Element Name</td> <td>- Unassigned - ▾ *</td> </tr> <tr> <td>Location</td> <td><input type="text"/></td> </tr> </tbody> </table>	Attribute	Value	Hostname	<input type="text"/> *	Role	- Select Role - ▾ *	System ID	<input type="text"/>	Hardware Profile	SDS HP c-Class Blade V0 ▾	Network Element Name	- Unassigned - ▾ *	Location	<input type="text"/>										
Attribute	Value																									
Hostname	<input type="text"/> *																									
Role	- Select Role - ▾ *																									
System ID	<input type="text"/>																									
Hardware Profile	SDS HP c-Class Blade V0 ▾																									
Network Element Name	- Unassigned - ▾ *																									
Location	<input type="text"/>																									
<p>15.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A:</b></p> <p>Input the assigned “<b>hostname</b>” for the SDS Server (A or B).</p>	 <table border="1"> <thead> <tr> <th>Attribute</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Host Name</td> <td>sds-mrsvnc-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.]</td> </tr> </tbody> </table>	Attribute	Value	Description	Host Name	sds-mrsvnc-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.]																		
Attribute	Value	Description																								
Host Name	sds-mrsvnc-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.]																								

**Procedure 2:** Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM site only)

Step	Procedure	Result
<p>16.</p> <input type="checkbox"/>	<p><b>SDS Server A:</b> Select “<b>NETWORK OAM&amp;P</b>” for the server “<b>Role</b>” from the pull-down menu.</p>	
<p>17.</p>	<p><b>SDS Server A:</b> Input the assigned hostname again as the “<b>System ID</b>” for the SDS Server (A or B).</p>	
<p>18.</p> <input type="checkbox"/>	<p><b>SDS Server A:</b> Select “<b>SDS HP Rack Mount</b>” for the <b>Hardware Profile</b> for the SDS from the pull-down menu.</p>	
<p>19.</p> <input type="checkbox"/>	<p><b>SDS Server A:</b> Select the <b>Network Element Name</b> for the SDS from the pull-down menu.</p>	
<p>20.</p> <input type="checkbox"/>	<p><b>SDS Server A:</b> Enter the site location.  <b>NOTE:</b> <i>Location is an optional field.</i></p>	

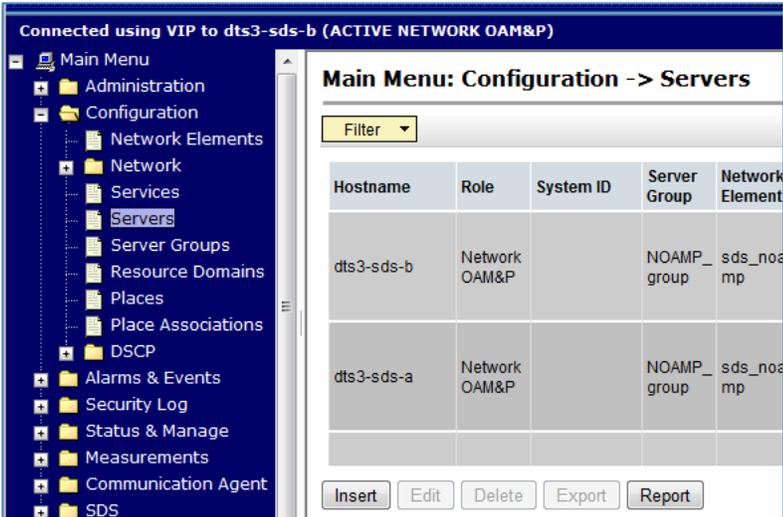
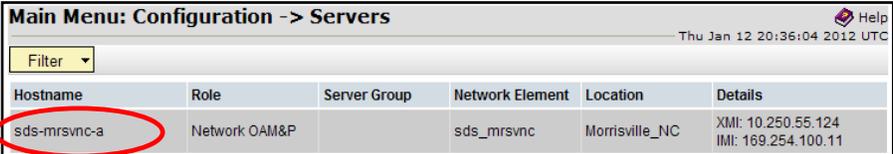
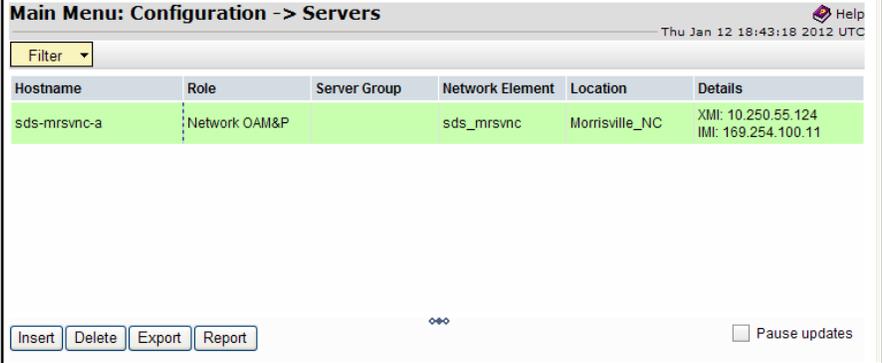
Procedure 2: Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM site only)

Step	Procedure	Result																															
<p>21.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A:</b></p> <p>1) Enter the <b>MGMNT_VLAN</b> IP address for the SDS Server.</p> <p>2) Set the <b>MGMNT_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>	<div style="border: 1px solid black; padding: 5px;"> <p><b>Interfaces:</b></p> <table border="1"> <thead> <tr> <th>Network</th> <th>IP Address</th> <th>Interface</th> </tr> </thead> <tbody> <tr> <td>MGMNT_VLAN (169.254.1.0/24)</td> <td>169.254.1.11</td> <td>bond0 <input checked="" type="checkbox"/> VLAN (2)</td> </tr> <tr> <td>XMI (10.240.241.0/24)</td> <td>10.250.55.124</td> <td>bond1 <input type="checkbox"/> VLAN (3)</td> </tr> <tr> <td>IMI (169.254.100.0/24)</td> <td>169.254.100.11</td> <td>bond0 <input checked="" type="checkbox"/> VLAN (4)</td> </tr> </tbody> </table> <p style="text-align: right;">Ok Apply Cancel</p> </div> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr style="background-color: #ffff00;"> <th>SDS Server (Primary NOAM)</th> <th>Network</th> <th>IP Address</th> <th>Interface</th> <th>VLAN Checkbox</th> </tr> </thead> <tbody> <tr> <td rowspan="2">SDS-A</td> <td>MGMNT_VLAN</td> <td>169.254.1.11</td> <td rowspan="2">bond0</td> <td rowspan="2">✓</td> </tr> <tr> <td>IMI</td> <td>169.254.100.11</td> </tr> <tr> <td rowspan="2">SDS-B</td> <td>MGMNT_VLAN</td> <td>169.254.1.12</td> <td rowspan="2">bond0</td> <td rowspan="2">✓</td> </tr> <tr> <td>IMI</td> <td>169.254.100.12</td> </tr> </tbody> </table> <p><b>NOTE_1:</b> These values should be used for all SDS installations.</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	MGMNT_VLAN (169.254.1.0/24)	169.254.1.11	bond0 <input checked="" type="checkbox"/> VLAN (2)	XMI (10.240.241.0/24)	10.250.55.124	bond1 <input type="checkbox"/> VLAN (3)	IMI (169.254.100.0/24)	169.254.100.11	bond0 <input checked="" type="checkbox"/> VLAN (4)	SDS Server (Primary NOAM)	Network	IP Address	Interface	VLAN Checkbox	SDS-A	MGMNT_VLAN	169.254.1.11	bond0	✓	IMI	169.254.100.11	SDS-B	MGMNT_VLAN	169.254.1.12	bond0	✓	IMI	169.254.100.12
Network	IP Address	Interface																															
MGMNT_VLAN (169.254.1.0/24)	169.254.1.11	bond0 <input checked="" type="checkbox"/> VLAN (2)																															
XMI (10.240.241.0/24)	10.250.55.124	bond1 <input type="checkbox"/> VLAN (3)																															
IMI (169.254.100.0/24)	169.254.100.11	bond0 <input checked="" type="checkbox"/> VLAN (4)																															
SDS Server (Primary NOAM)	Network	IP Address	Interface	VLAN Checkbox																													
SDS-A	MGMNT_VLAN	169.254.1.11	bond0	✓																													
	IMI	169.254.100.11																															
SDS-B	MGMNT_VLAN	169.254.1.12	bond0	✓																													
	IMI	169.254.100.12																															
<p>22.</p> <p><input type="checkbox"/></p>	<p>1) Enter the customer assigned <b>XMI</b> IP address for the SDS Server.</p> <p><b>Layer 3</b> (No VLAN tagging used for XMI)</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> (VLAN tagging used for XMI)</p> <p>2) Set the <b>XMI</b> Interface to “<b>bond0</b>” and “<b>check</b>” the VLAN checkbox.</p>	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr style="background-color: #ffff00;"> <th>SDS Server (Primary NOAM)</th> <th>Network</th> <th>VLAN tagging (on XMI network)</th> <th>Interface</th> <th>VLAN Checkbox</th> </tr> </thead> <tbody> <tr> <td rowspan="2">SDS NOAM Server (A or B)</td> <td rowspan="2">XMI</td> <td>No</td> <td>bond1</td> <td>✗</td> </tr> <tr> <td>Yes</td> <td>bond0</td> <td>✓</td> </tr> </tbody> </table> <p><b>!!! CAUTION !!!</b></p> <p>It is crucial that the correct network configuration be selected in <b>Steps 21 &amp; 22</b> of this procedure. Choosing an incorrect configuration will result in the need to re-install the OS and restart SDS installation procedures over from the beginning.</p>	SDS Server (Primary NOAM)	Network	VLAN tagging (on XMI network)	Interface	VLAN Checkbox	SDS NOAM Server (A or B)	XMI	No	bond1	✗	Yes	bond0	✓																		
SDS Server (Primary NOAM)	Network	VLAN tagging (on XMI network)	Interface	VLAN Checkbox																													
SDS NOAM Server (A or B)	XMI	No	bond1	✗																													
		Yes	bond0	✓																													

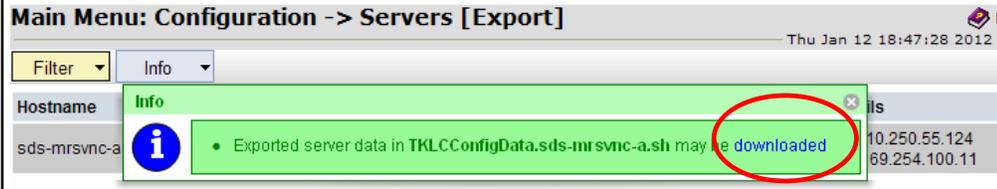
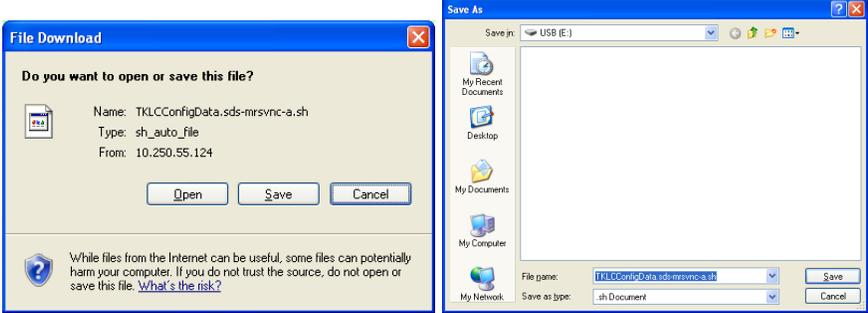
**Procedure 2:** Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM site only)

Step	Procedure	Result								
<p>23.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server 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) If you have another NTP Server IP address, repeat (1) and (2) to enter it.</p> <p>4) Optionally, click the “Prefer” checkbox to prefer one NTP Server over the other.</p>	<p>The result shows three sequential screenshots of the 'NTP Servers' configuration dialog. The first screenshot shows the 'Add' button circled in red. The second screenshot shows the 'NTP Server IP Address' field containing '10.250.32.10'. The third screenshot shows the 'Prefer' checkbox for the IP address '10.250.32.10' checked and circled in red.</p>								
<p>24.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server 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>The result shows two screenshots of the 'Main Menu: Configuration -&gt; Servers [Insert]' dialog. The top screenshot shows a green information banner with the message 'Pre-Validation passed - Data NOT committed ...'. The bottom screenshot shows the 'Interfaces' section with a table of network configurations.</p> <table border="1"> <thead> <tr> <th>Network</th> <th>IP Address</th> </tr> </thead> <tbody> <tr> <td>MGMNT_VLAN (169.254.1.0/24)</td> <td>169.254.1.11</td> </tr> <tr> <td>XMI (10.240.241.0/24)</td> <td>10.250.55.124</td> </tr> <tr> <td>IMI (169.254.100.0/24)</td> <td>169.254.100.11</td> </tr> </tbody> </table>	Network	IP Address	MGMNT_VLAN (169.254.1.0/24)	169.254.1.11	XMI (10.240.241.0/24)	10.250.55.124	IMI (169.254.100.0/24)	169.254.100.11
Network	IP Address									
MGMNT_VLAN (169.254.1.0/24)	169.254.1.11									
XMI (10.240.241.0/24)	10.250.55.124									
IMI (169.254.100.0/24)	169.254.100.11									
<p>25.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A:</b></p> <p>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>	<p>The result shows a screenshot of the 'Main Menu: Configuration -&gt; Servers [Insert]' dialog. A green information banner displays the message 'Data committed!'. The 'Host Name' field contains 'sds-mrsvnc-a'.</p>								

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

Step	Procedure	Result															
<p>26.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A:</b></p> <p>Select...</p> <p><b>Main Menu</b>                      → Configuration                      → Servers</p> <p>...as shown on the right.</p>	 <p>The screenshot shows the 'Main Menu: Configuration -&gt; Servers' interface. On the left is a tree view with folders like Administration, Configuration, Network Elements, Network, Services, Servers, Server Groups, Resource Domains, Places, Place Associations, DSCP, Alarms &amp; Events, Security Log, Status &amp; Manage, Measurements, Communication Agent, and SDS. The 'Servers' folder is selected. On the right is a table with columns: Hostname, Role, System ID, Server Group, and Network Element. Two rows are visible: dts3-sds-b and dts3-sds-a.</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>System ID</th> <th>Server Group</th> <th>Network Element</th> </tr> </thead> <tbody> <tr> <td>dts3-sds-b</td> <td>Network OAM&amp;P</td> <td></td> <td>NOAMP_group</td> <td>sds_noamp</td> </tr> <tr> <td>dts3-sds-a</td> <td>Network OAM&amp;P</td> <td></td> <td>NOAMP_group</td> <td>sds_noamp</td> </tr> </tbody> </table>	Hostname	Role	System ID	Server Group	Network Element	dts3-sds-b	Network OAM&P		NOAMP_group	sds_noamp	dts3-sds-a	Network OAM&P		NOAMP_group	sds_noamp
Hostname	Role	System ID	Server Group	Network Element													
dts3-sds-b	Network OAM&P		NOAMP_group	sds_noamp													
dts3-sds-a	Network OAM&P		NOAMP_group	sds_noamp													
<p>27.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A:</b></p> <p>The “Configuration →Servers” screen should now show the newly added <b>SDS Server</b> in the list.</p>	 <p>The screenshot shows the 'Main Menu: Configuration -&gt; Servers' interface. The table has columns: Hostname, Role, Server Group, Network Element, Location, and Details. A new entry 'sds-mrsvnc-a' is circled in red.</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>Server Group</th> <th>Network Element</th> <th>Location</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>sds-mrsvnc-a</td> <td>Network OAM&amp;P</td> <td></td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.124 IMI: 169.254.100.11</td> </tr> </tbody> </table>	Hostname	Role	Server Group	Network Element	Location	Details	sds-mrsvnc-a	Network OAM&P		sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.124 IMI: 169.254.100.11			
Hostname	Role	Server Group	Network Element	Location	Details												
sds-mrsvnc-a	Network OAM&P		sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.124 IMI: 169.254.100.11												
<p>28.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server 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>GREEN</b>.</p> <p>2) Select the “Export” dialogue button.</p>	 <p>The screenshot shows the 'Main Menu: Configuration -&gt; Servers' interface. The row for 'sds-mrsvnc-a' is highlighted in green.</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>Server Group</th> <th>Network Element</th> <th>Location</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>sds-mrsvnc-a</td> <td>Network OAM&amp;P</td> <td></td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.124 IMI: 169.254.100.11</td> </tr> </tbody> </table>	Hostname	Role	Server Group	Network Element	Location	Details	sds-mrsvnc-a	Network OAM&P		sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.124 IMI: 169.254.100.11			
Hostname	Role	Server Group	Network Element	Location	Details												
sds-mrsvnc-a	Network OAM&P		sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.124 IMI: 169.254.100.11												

**Procedure 2:** Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM site only)

Step	Procedure	Result
<p>29.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server 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>Note: You may be required to click the <b>Info</b> tab to display the Info banner shown here.</p>
<p>30.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server 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 USB flash drive.</p>	
<p>31.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A or B:</b></p> <p>Access the server console.</p>	<p>Connect to the <b>SDS Server A or B</b> console using one of the access methods described in <b>Section 2.3</b>.</p>
<p>32.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A or B:</b></p> <p>1) Access the command prompt.</p> <p>2) Log into the server as the <b>“admusr”</b> user.</p>	<pre>login: <b>admusr</b> Using keyboard-interactive authentication. Password: <b>&lt;admusr_password&gt;</b></pre>

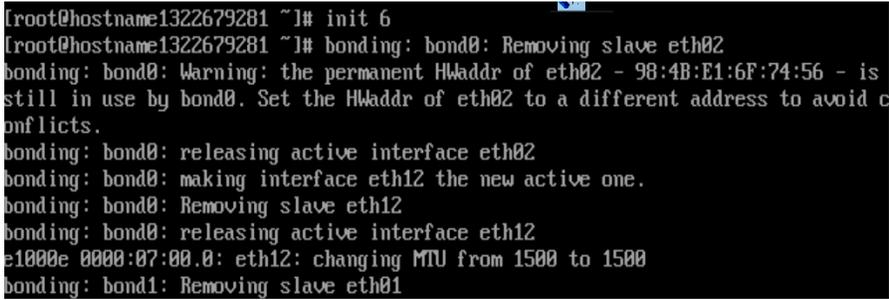
**Procedure 2:** Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM site only)

Step	Procedure	Result
<p>33.</p> <input type="checkbox"/>	<p><b>SDS Server A or B:</b></p> <p>Insert the USB flash drive containing the server configuration file into the USB port on the front panel of <b>SDS Server</b>.</p>	 <p><b>Figure 3 - HP DL360 G6 Front Panel: USB Port</b></p>  <p><b>Figure 4 - HP DL380 Gen8, Front Panel: USB Port</b></p>
<p>34.</p> <input type="checkbox"/>	<p><b>SDS Server A or B:</b></p> <p>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.</p>	<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 &lt;ENTER&gt; key to return to the command prompt.</p>
<p>35.</p> <input type="checkbox"/>	<p><b>SDS Server A or B:</b></p> <p>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.</p>	<pre>\$ df  grep sdb /dev/sdb1          2003076          8   2003068    1% /media/sdb1</pre>
<p>36.</p> <input type="checkbox"/>	<p><b>SDS Server 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 <b>Appendix C</b> was used to create this interface, un-configure the interface before copying this file.</p>
<p>29.</p> <input type="checkbox"/>	<p>Unmount the USB drive partition.</p>	<pre>\$ sudo umount /media/sdb1 \$</pre>
<p>37.</p> <input type="checkbox"/>	<p><b>SDS Server A or B:</b></p> <p><b>NOTE:</b> If <b>Appendix C</b> was used to create this interface, un-configure the interface.</p>	<pre>\$ sudo netAdm delete --device=eth02 Interface eth02 removed</pre>

**Procedure 2:** Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM site only)

Step	Procedure	Result
<p>38.</p> <input type="checkbox"/>	<p><b>SDS Server 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></p> <p>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>
<p>39.</p> <input type="checkbox"/>	<p><b>SDS Server 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> <pre>Broadcast message from root (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.</pre> <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>
<p>40.</p> <input type="checkbox"/>	<p><b>SDS Server 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> It is important that the USB flash drive be <b>REMOVED</b> from the server before continuing on to the next step.</p>	 <p><b>Figure 3 - HP DL360 G6 Front Panel: USB Port</b></p>  <p><b>Figure 4 - HP DL380 Gen8, Front Panel: USB Port</b></p>
<p>41.</p> <input type="checkbox"/>	<p><b>SDS Server A or B:</b></p> <p>Ignore the output shown and press the &lt;ENTER&gt; key to return to the command prompt.</p>	<pre>Broadcast message from root (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. &lt;ENTER&gt;</pre>
<p>42.</p>	<p><b>SDS Server A or B:</b></p> <p>Verify that the desired Time Zone is currently in use.</p>	<pre>\$ date Mon Aug 10 19:34:51 UTC 2015</pre>

**Procedure 2:** Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM site only)

Step	Procedure	Result
<p>43.</p> <input type="checkbox"/>	<p><b>SDS Server 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><i>Example:</i> \$ <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 H</b> for a list of valid time zones.</p> <p>\$ <code>sudo set_ini_tz.pl "Etc/UTC"</code></p>
<p>44.</p> <input type="checkbox"/>	<p><b>SDS Server A or B:</b></p> <p>Initiate a reboot of the SDS Server.</p>	<p>\$ <code>sudo init 6</code></p>
<p>45.</p> <input type="checkbox"/>	<p><b>SDS Server A or B:</b></p> <p>Wait ~9 minutes</p> <p>Output similar to that shown on the right may be observed as the server initiates a reboot.</p>	 <pre> [root@hostname1322679281 ~]# init 6 [root@hostname1322679281 ~]# bonding: bond0: Removing slave eth02 bonding: bond0: Warning: the permanent Hwaddr of eth02 - 98:4B:E1:6F:74:56 - is still in use by bond0. Set the Hwaddr of eth02 to a different address to avoid c onflicts. bonding: bond0: releasing active interface eth02 bonding: bond0: making interface eth12 the new active one. bonding: bond0: Removing slave eth12 bonding: bond0: releasing active interface eth12 e1000e 0000:07:00.0: eth12: changing MTU from 1500 to 1500 bonding: bond1: Removing slave eth01                     </pre>
<p>46.</p> <input type="checkbox"/>	<p><b>SDS Server A or B:</b></p> <p>After the server has completed reboo, log into the server as the "admusr" user.</p>	<p>login: <code>admusr</code></p> <p>Using keyboard-interactive authentication.</p> <p>Password: <code>&lt;admusr_password&gt;</code></p>

**Procedure 2:** Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM site only)

Step	Procedure	Result
<p>47.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A or B:</b></p> <p>1) Verify that the <b>IMI IP address</b> and the <b>bond VLAN</b> 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</b> addresses 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>
<p>48.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server 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>
<div style="display: flex; align-items: center;">  <div> <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 48.</li> </ol> </div> </div>		

**Procedure 2:** Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM site only)

Step	Procedure	Result
<p>49.</p> <input type="checkbox"/>	<p><b>SDS Server A or B:</b></p> <p>Execute a “<b>syscheck</b>” to verify the current health of the server.</p>	<pre>\$ sudo syscheck Running modules in class system...                                 OK Running modules in class proc...                                 OK Running modules in class net...                                 OK Running modules in class hardware...                                 OK Running modules in class disk...                                 OK LOG LOCATION: /var/TKLC/log/syscheck/fail_log</pre>
<p>50.</p> <input type="checkbox"/>	<p><b>SDS Server A or B:</b></p> <p>Exit to return to the login prompt.</p>	<pre>\$ exit</pre>
<p>51.</p> <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>	
<div style="display: flex; align-items: center;">  <p><b>IF AGGREGATION SWITCHES ARE INSTALLED AND 4948E-F SWITCH CONFIGURATION HAS NOT BEEN COMPLETED PRIOR TO THIS STEP, STOP AND EXECUTE THE FOLLOWING PROCEDURES:</b></p> <ol style="list-style-type: none"> <li>1) <b>APPENDIX E.1</b></li> <li>2) <b>APPENDIX E.2</b> (<i>Appendix E.2 references Appendix E.3 where applicable</i>).</li> <li>3) <b>APPENDIX E.4</b></li> </ol> </div>		
<p>52.</p> <input type="checkbox"/>	<p><b>SDS Server A:</b></p> <p>From <b>SDS Server A</b>, “ping” the <b>IMI IP address</b> configured for on <b>SDS Server B</b>.</p>	<pre>\$ ping -c 5 169.254.100.12 PING 169.254.100.12 (169.254.100.12) 56(84) bytes of data. 64 bytes from 169.254.100.12: icmp_seq=1 ttl=64 time=0.020 ms 64 bytes from 169.254.100.12: icmp_seq=2 ttl=64 time=0.026 ms 64 bytes from 169.254.100.12: icmp_seq=3 ttl=64 time=0.025 ms 64 bytes from 169.254.100.12: icmp_seq=4 ttl=64 time=0.025 ms 64 bytes from 169.254.100.12: icmp_seq=5 ttl=64 time=0.026 ms  --- 169.254.100.12 ping statistics --- 5 packets transmitted, 5 received, 0% packet loss, time 4000ms rtt min/avg/max/mdev = 0.020/0.024/0.026/0.005 ms</pre>

**Procedure 2:** Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM site only)

Step	Procedure	Result
<p>53.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A:</b></p> <p>From <b>SDS Server A</b>, “ping” the <b>XMI IP address</b> configured for on <b>SDS Server B</b>.</p>	<pre>\$ ping -c 5 10.250.55.125 PING 10.250.55.125 (10.250.55.125) 56(84) bytes of data. 64 bytes from 10.250.55.125: icmp_seq=1 ttl=64 time=0.166 ms 64 bytes from 10.250.55.125: icmp_seq=2 ttl=64 time=0.139 ms 64 bytes from 10.250.55.125: icmp_seq=3 ttl=64 time=0.176 ms 64 bytes from 10.250.55.125: icmp_seq=4 ttl=64 time=0.209 ms 64 bytes from 10.250.55.125: icmp_seq=5 ttl=64 time=0.179 ms  --- 10.250.55.125 ping statistics --- 5 packets transmitted, 5 received, 0% packet loss, time 4000ms rtt min/avg/max/mdev = 0.139/0.173/0.209/0.028 ms</pre>
<p>54.</p>	<p><b>SDS Server A:</b></p> <p>Use “ping” to verify that <b>SDS Server A</b> can reach the configured <b>XMI Gateway address</b>.</p>	<pre>\$ ping -c 5 10.250.55.1 PING 10.250.55.1 (10.250.55.1) 56(84) bytes of data. 64 bytes from 10.250.55.1: icmp_seq=1 ttl=64 time=0.166 ms 64 bytes from 10.250.55.1: icmp_seq=2 ttl=64 time=0.139 ms 64 bytes from 10.250.55.1: icmp_seq=3 ttl=64 time=0.176 ms 64 bytes from 10.250.55.1: icmp_seq=4 ttl=64 time=0.209 ms 64 bytes from 10.250.55.1: icmp_seq=5 ttl=64 time=0.179 ms  --- 10.250.55.1 ping statistics --- 5 packets transmitted, 5 received, 0% packet loss, time 4000ms rtt min/avg/max/mdev = 0.139/0.173/0.209/0.028 ms</pre>
<p>55.</p>	<p><b>SDS Server B:</b></p> <p>Use “ping” to verify that <b>SDS Server B</b> can reach the configured <b>XMI Gateway address</b>.</p>	<pre>\$ ping -c 5 10.250.55.1 PING 10.250.55.1 (10.250.55.1) 56(84) bytes of data. 64 bytes from 10.250.55.1: icmp_seq=1 ttl=64 time=0.166 ms 64 bytes from 10.250.55.1: icmp_seq=2 ttl=64 time=0.139 ms 64 bytes from 10.250.55.1: icmp_seq=3 ttl=64 time=0.176 ms 64 bytes from 10.250.55.1: icmp_seq=4 ttl=64 time=0.209 ms 64 bytes from 10.250.55.1: icmp_seq=5 ttl=64 time=0.179 ms  --- 10.250.55.1 ping statistics --- 5 packets transmitted, 5 received, 0% packet loss, time 4000ms rtt min/avg/max/mdev = 0.139/0.173/0.209/0.028 ms</pre>

**Procedure 2:** Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM site only)

Step	Procedure	Result
<p>56.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A:</b></p> <p>Disconnect the laptop from the <b>Server A</b>, <b>eth14</b> Ethernet port.</p>	<div> <p>HP DL360, DC (Rear Panel)</p> <p>ETH 14 13 12 11</p> <p>ETH01 ETH02 UGA iLO UID</p> <p>Mouse Keyboard Serial Port</p> </div> <p><b>Figure 5 - HP DL360 G6, Rear Panel (Ethernet)</b></p> <div> <p>HP DL380p Gen8 Backplane</p> <p>ETH14 ETH13 ETH12 ETH11</p> <p>ETH04 ETH03 ETH02 ETH01</p> <p>iLO 4</p> </div> <p><b>Figure 6 - HP DL380 Gen8, Rear Panel (Ethernet)</b></p>
<p>57.</p> <p><input type="checkbox"/></p>	<p><b>switch1A:</b></p> <p>Connect the laptop to <b>Port 44</b> of <b>switch1A</b> (bottom switch).</p>	<div> <p>Port 1 Port 2</p> <p>Port 47 Port 48 Port 49 Console Port</p> <p>Port 52 Management Port</p> </div> <p><b>Figure 7 - Cisco 4948E-F Switch (Maintenance Access Port)</b></p>
<p>58.</p> <p><input type="checkbox"/></p>	<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 D. Steps 6-7</b> if assistance is needed in modifying the laptop's network configuration.</li> </ul>

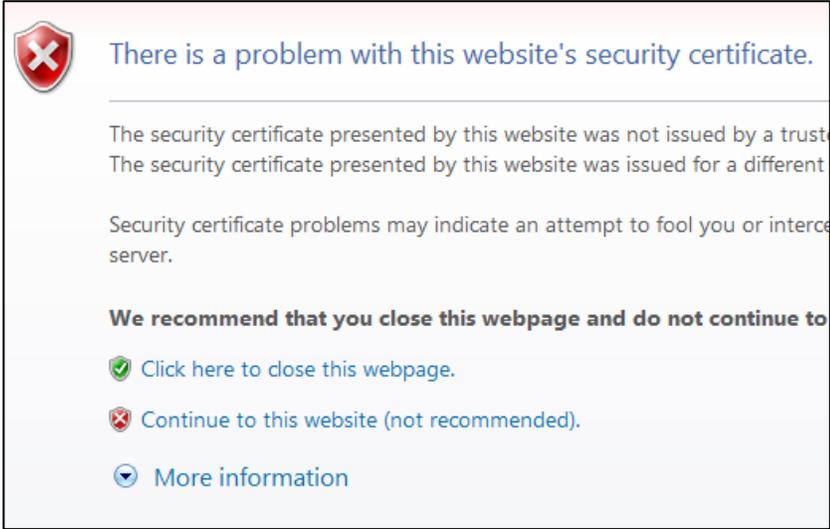
**Procedure 2:** Configuring SDS Servers A and B (1<sup>st</sup> SDS NOAM site only)

Step	Procedure	Result
<p>59.</p> <input type="checkbox"/>	<p><b>SDS Server A:</b> Using <b>SSH</b>, login to <b>Server 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>
<p>60.</p> <input type="checkbox"/>	<p><b>SDS Server A:</b> Using the “netAdm” utility, delete the <b>eth14</b> interface.</p>	<pre>\$ sudo netAdm delete --device=eth14 Interface eth14 removed \$</pre>
<p>61.</p> <input type="checkbox"/>	<p><b>SDS Server A:</b> Using the “netAdm” utility, re-add the <b>eth14</b> interface.</p>	<pre>\$ sudo netAdm add --device=eth14 Interface eth14 added \$</pre>
<p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>		

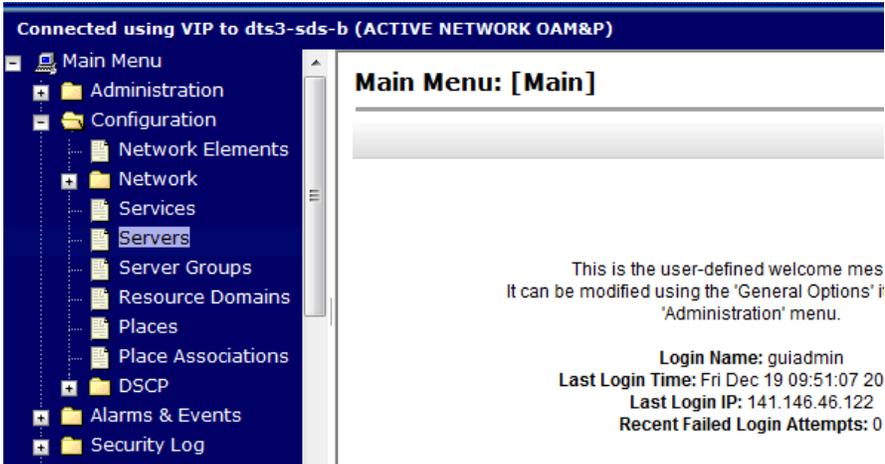
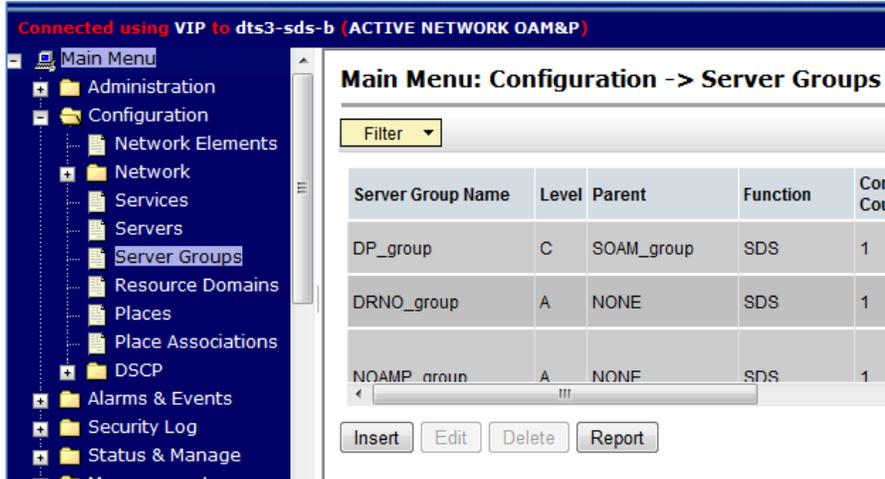
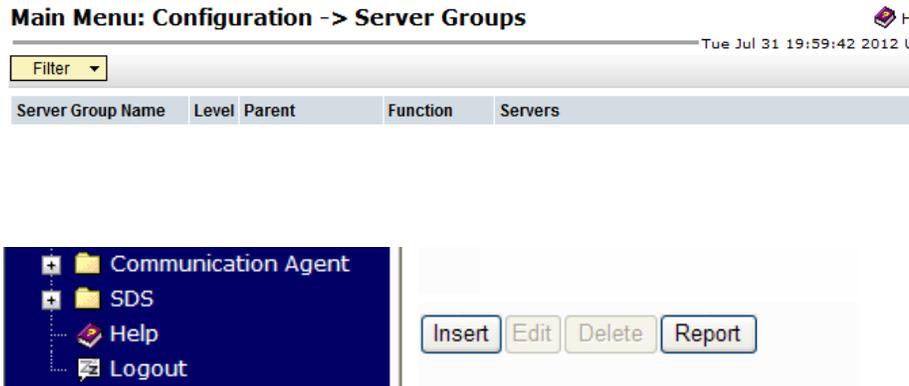
## 5.2 OAM Pairing (1<sup>st</sup> SDS NOAM site only)

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

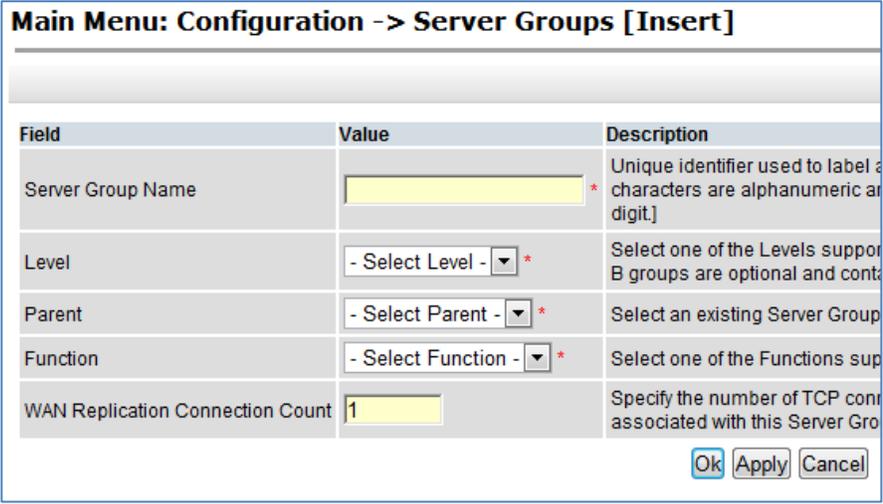
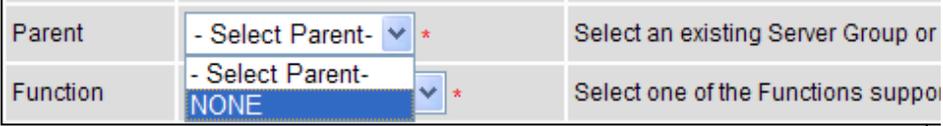
### Procedure 3: Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM site only)

Step	Procedure	Result
<p>1.</p> <input type="checkbox"/>	<p><b>SDS Server A:</b></p> <p>Launch an approved web browser and connect to the SDS Server A IP XML address</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>2.</p> <input type="checkbox"/>	<p><b>SDS Server 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>	

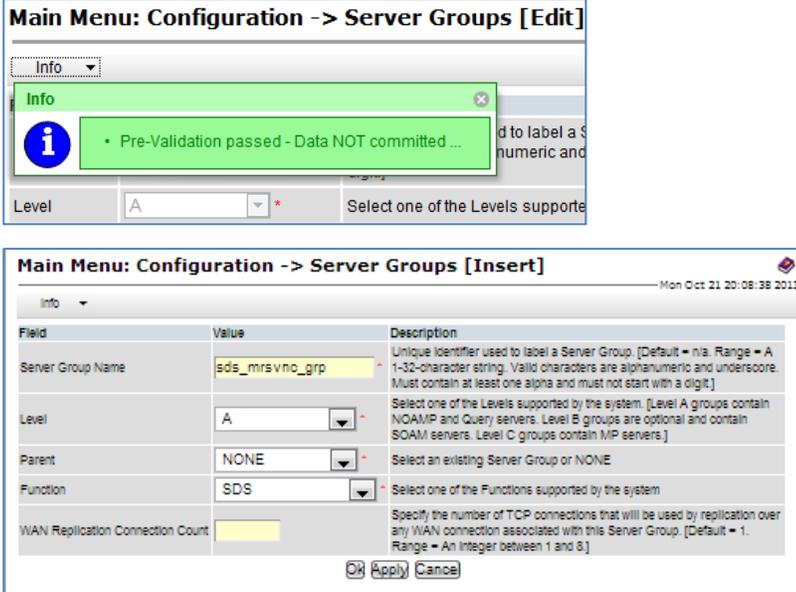
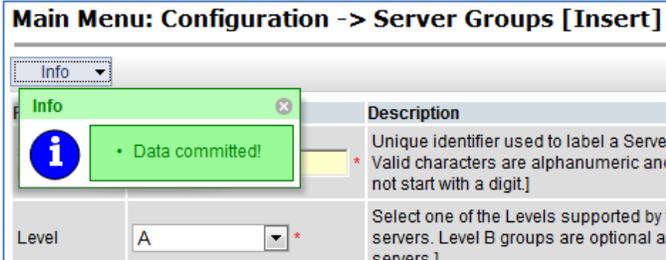
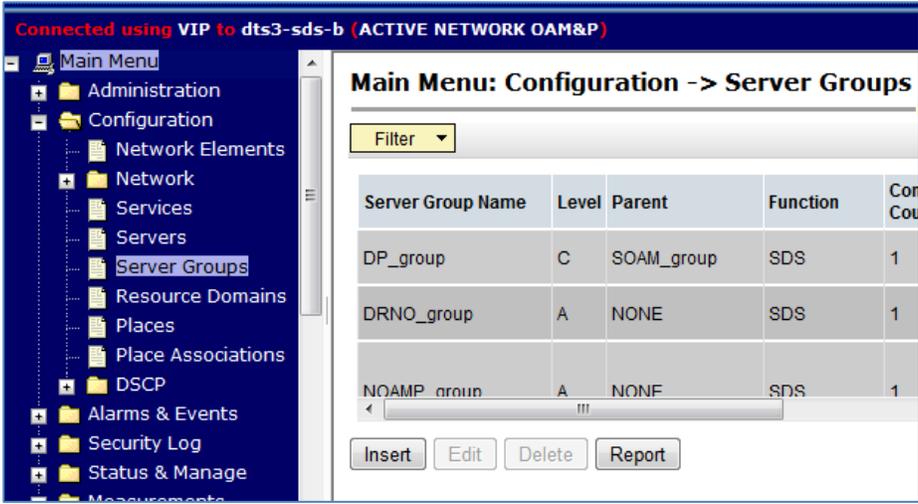
**Procedure 3:** Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM site only)

Step	Procedure	Result																				
<p>3.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A:</b></p> <p>The user should be presented the SDS Main Menu as shown on the right.</p>																					
<p>4.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A:</b></p> <p>Select...</p> <p><b>Main Menu</b>                  → Configuration                  → Server Groups</p> <p>...as shown on the right.</p>	 <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Cor</th> </tr> </thead> <tbody> <tr> <td>DP_group</td> <td>C</td> <td>SOAM_group</td> <td>SDS</td> <td>1</td> </tr> <tr> <td>DRNO_group</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>1</td> </tr> <tr> <td>NOAMP_group</td> <td>A</td> <td>NONF</td> <td>SDS</td> <td>1</td> </tr> </tbody> </table>	Server Group Name	Level	Parent	Function	Cor	DP_group	C	SOAM_group	SDS	1	DRNO_group	A	NONE	SDS	1	NOAMP_group	A	NONF	SDS	1
Server Group Name	Level	Parent	Function	Cor																		
DP_group	C	SOAM_group	SDS	1																		
DRNO_group	A	NONE	SDS	1																		
NOAMP_group	A	NONF	SDS	1																		
<p>5.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A:</b></p> <p>1) The user will be presented with the “Server Groups” configuration screen as shown on the right.</p> <p>2) Select the “Insert” dialogue button from the bottom left corner of the screen.</p>	 <p><b>NOTE:</b> The user may need to use the vertical scroll-bar in order to make the “Insert” dialogue button visible.</p>																				

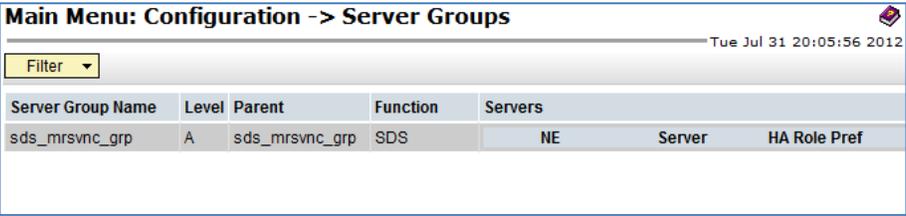
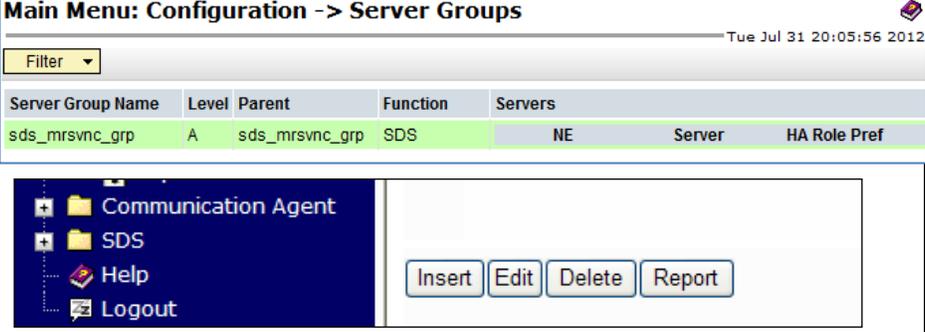
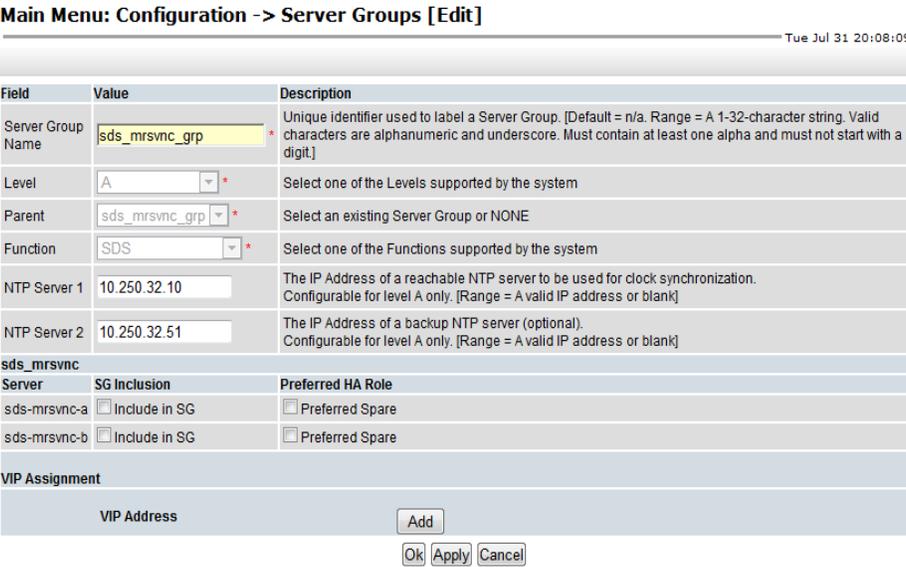
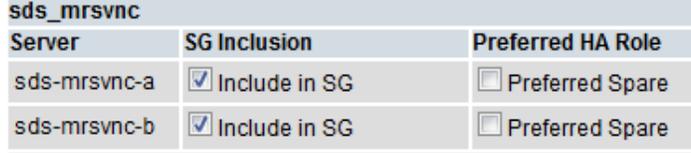
**Procedure 3:** Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM site only)

Step	Procedure	Result
<p>6.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A:</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>	
<p>7.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A:</b></p> <p>Input the <b>Server Group Name</b>.</p>	
<p>8.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A:</b></p> <p>Select “<b>A</b>” on the “<b>Level</b>” pull-down menu.</p>	
<p>9.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A:</b></p> <p>Select “<b>None</b>” on the “<b>Parent</b>” pull-down menu.</p>	
<p>10.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A:</b></p> <p>Select “<b>SDS</b>” on the “<b>Function</b>” pull-down menu.</p>	

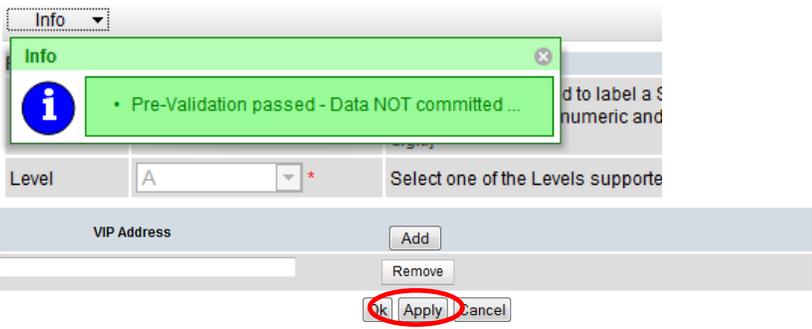
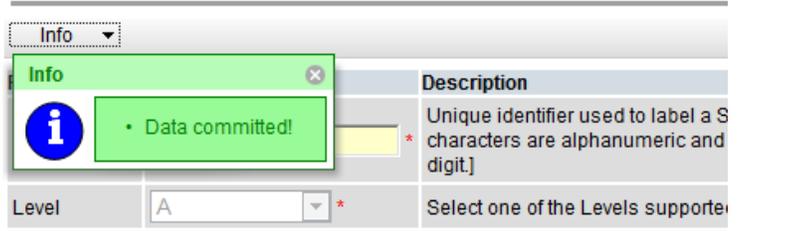
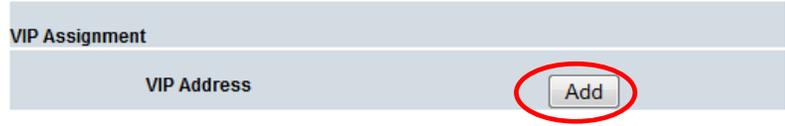
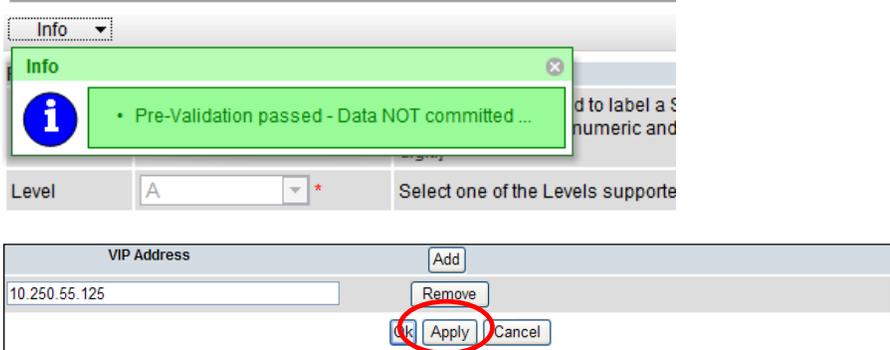
**Procedure 3: Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM site only)**

Step	Procedure	Result																				
<p>11.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server 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>The screenshot shows two parts of the configuration interface. The top part is a message box titled 'Main Menu: Configuration -&gt; Server Groups [Edit]' with an 'Info' icon and a green banner that says 'Pre-Validation passed - Data NOT committed ...'. Below this is a form for editing a server group with fields for 'Level' (set to 'A') and a 'Select one of the Levels supported' dropdown. The bottom part is a form titled 'Main Menu: Configuration -&gt; Server Groups [Insert]' with a timestamp of 'Mon Oct 21 20:08:38 2013'. It contains a table with the following data:</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_mrsvnc_grp</td> <td>Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.]</td> </tr> <tr> <td>Level</td> <td>A</td> <td>Select one of the Levels supported by the system. [Level A groups contain NOAMP and Query servers. Level B groups are optional and contain SOAM servers. Level C groups contain MP servers.]</td> </tr> <tr> <td>Parent</td> <td>NONE</td> <td>Select an existing Server Group or NONE</td> </tr> <tr> <td>Function</td> <td>SDS</td> <td>Select one of the Functions supported by the system</td> </tr> <tr> <td>WAN Replication Connection Count</td> <td></td> <td>Specify the number of TCP connections that will be used by replication over any WAN connection associated with this Server Group. [Default = 1. Range = An Integer between 1 and 8.]</td> </tr> </tbody> </table>	Field	Value	Description	Server Group Name	sds_mrsvnc_grp	Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.]	Level	A	Select one of the Levels supported by the system. [Level A groups contain NOAMP and Query servers. Level B groups are optional and contain SOAM servers. Level C groups contain MP servers.]	Parent	NONE	Select an existing Server Group or NONE	Function	SDS	Select one of the Functions supported by the system	WAN Replication Connection Count		Specify the number of TCP connections that will be used by replication over any WAN connection associated with this Server Group. [Default = 1. Range = An Integer between 1 and 8.]		
Field	Value	Description																				
Server Group Name	sds_mrsvnc_grp	Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.]																				
Level	A	Select one of the Levels supported by the system. [Level A groups contain NOAMP and Query servers. Level B groups are optional and contain SOAM servers. Level C groups contain MP servers.]																				
Parent	NONE	Select an existing Server Group or NONE																				
Function	SDS	Select one of the Functions supported by the system																				
WAN Replication Connection Count		Specify the number of TCP connections that will be used by replication over any WAN connection associated with this Server Group. [Default = 1. Range = An Integer between 1 and 8.]																				
<p>12.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A:</b></p> <p>The user should be presented with a banner information message stating <b>“Data committed”</b>.</p>	 <p>The screenshot shows the 'Main Menu: Configuration -&gt; Server Groups [Insert]' form with a green banner that says 'Data committed!'. The form fields are the same as in the previous step.</p>																				
<p>13.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A:</b></p> <p>Select...</p> <p><b>Main Menu</b>  → <b>Configuration</b>  → <b>Server Groups</b></p> <p>...as shown on the right.</p>	 <p>The screenshot shows a navigation tree on the left with 'Server Groups' selected. On the right, a table lists the server groups:</p> <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Cor Cou</th> </tr> </thead> <tbody> <tr> <td>DP_group</td> <td>C</td> <td>SOAM_group</td> <td>SDS</td> <td>1</td> </tr> <tr> <td>DRNO_group</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>1</td> </tr> <tr> <td>NOAMP_group</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>1</td> </tr> </tbody> </table>	Server Group Name	Level	Parent	Function	Cor Cou	DP_group	C	SOAM_group	SDS	1	DRNO_group	A	NONE	SDS	1	NOAMP_group	A	NONE	SDS	1
Server Group Name	Level	Parent	Function	Cor Cou																		
DP_group	C	SOAM_group	SDS	1																		
DRNO_group	A	NONE	SDS	1																		
NOAMP_group	A	NONE	SDS	1																		

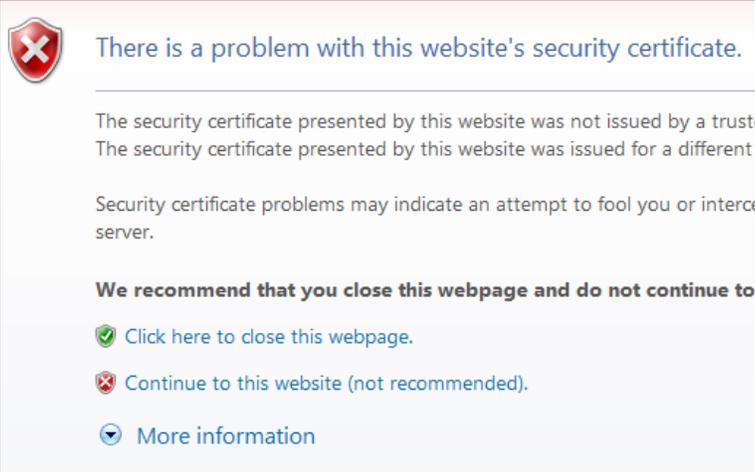
Procedure 3: Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM site only)

Step	Procedure	Result
<p>14.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A:</b></p> <p>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>	
<p>15.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server 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>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>16.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A:</b></p> <p>The user will be presented with the <b>“Server Groups [Edit]”</b> screen as shown on the right.</p>	
<p>17.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A:</b></p> <p>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>	

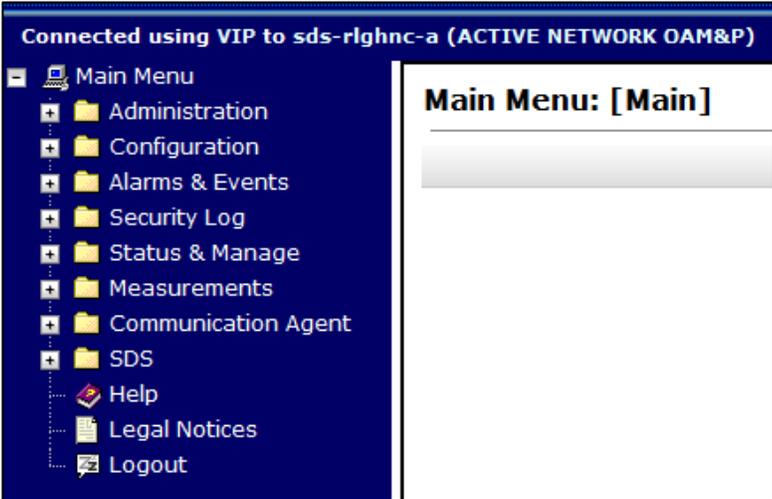
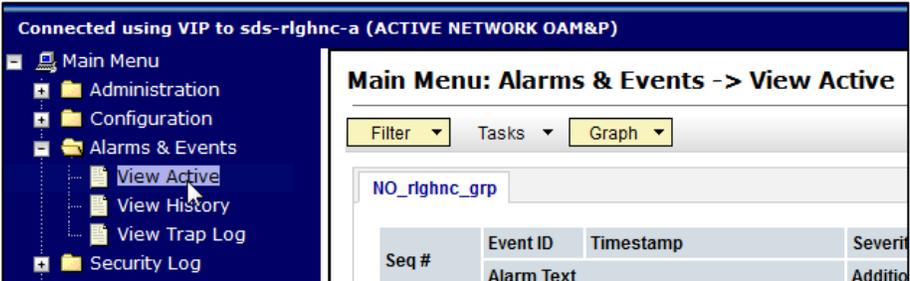
**Procedure 3:** Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM site only)

Step	Procedure	Result
<p>18.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server 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 [Edit]</b></p> 
<p>19.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A:</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> 
<p>20.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A:</b></p> <p>Click the <b>“Add”</b> dialogue button for the <b>VIP Address</b>.</p>	<p><b>VIP Assignment</b></p> 
<p>21.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server A:</b></p> <p>Input the <b>VIP Address</b></p>	
<p>22.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server 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 [Edit]</b></p> 

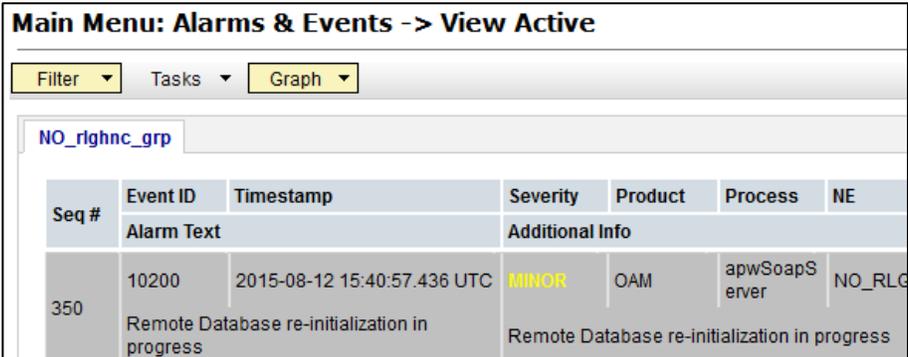
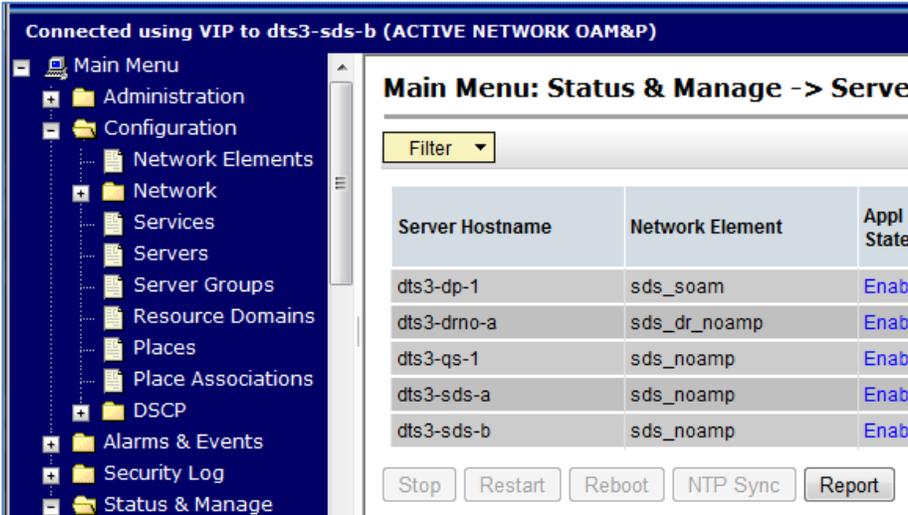
**Procedure 3:** Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM site only)

Step	Procedure	Result
<p>23.</p> <input type="checkbox"/>	<p><b>SDS Server A:</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> 
<p>24.</p> <input type="checkbox"/>	<p><b>SDS Server A:</b></p> <p>Click the <b>“Logout”</b> link on the OAM A server GUI.</p>	
<p>25.</p> <input type="checkbox"/>	<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 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>
<p>26.</p> <input type="checkbox"/>	<p><b>SDS VIP:</b></p> <p>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</p>	

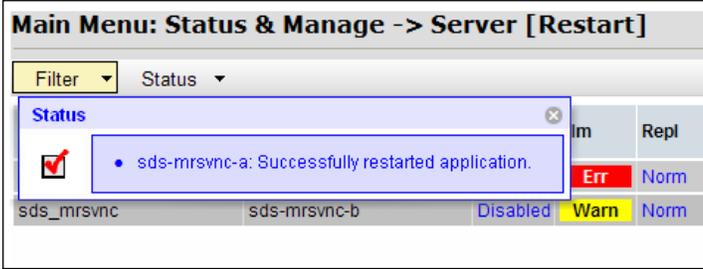
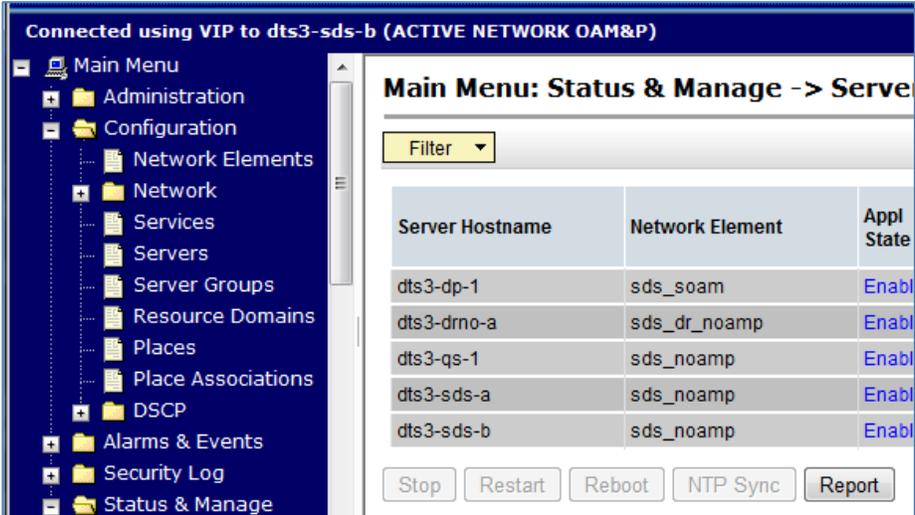
**Procedure 3:** Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM site only)

Step	Procedure	Result
<p>27.</p> <p><input type="checkbox"/></p>	<p><b>SDS VIP:</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>	
<p>28.</p>	<p><b>SDS VIP:</b></p> <p>The user should be presented the SDS Main Menu as shown on the right.</p>	
<p>29.</p>	<p><b>SDS VIP:</b></p> <p>Select...</p> <p><u>Main Menu</u>          → Alarms &amp; Events              → View Active</p> <p>...as shown on the right.</p>	

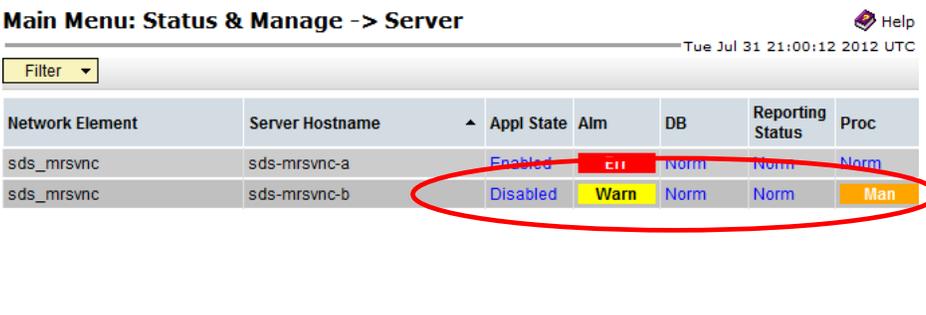
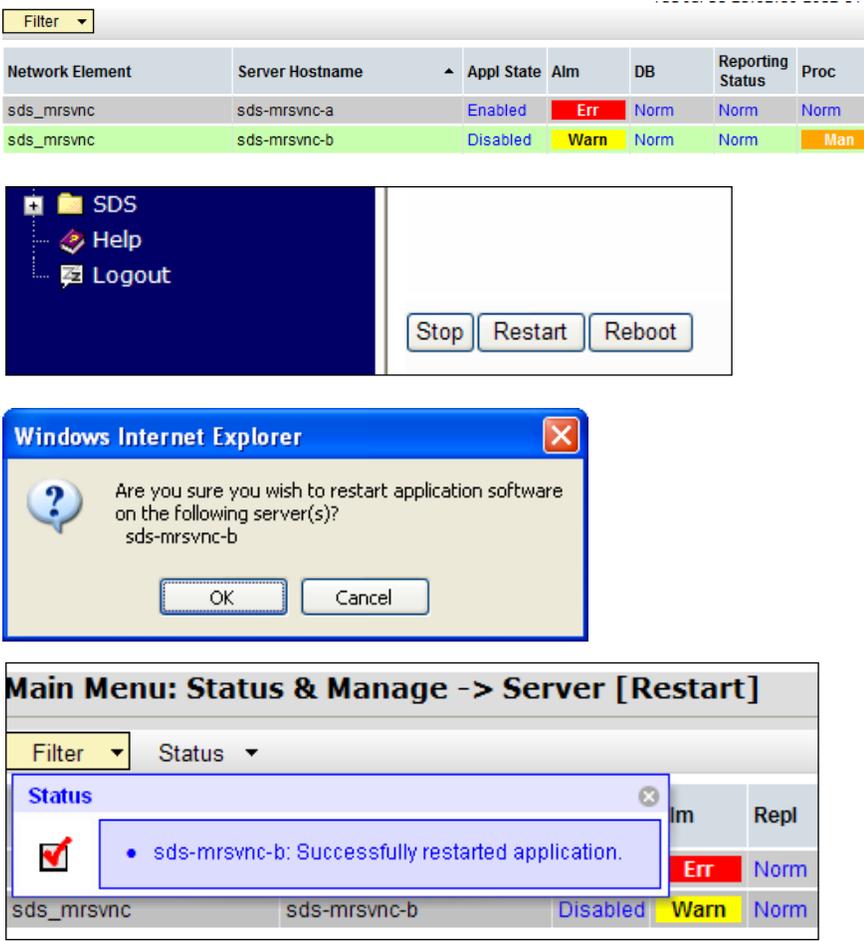
Procedure 3: Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM site only)

Step	Procedure	Result																					
<p>30.</p> <p><input type="checkbox"/></p>	<p><b>SDS VIP:</b></p> <p>Verify whether or not <b>Event ID 10200</b> (Remote Database re-initialization in progress) is present.</p>	 <p><b>Main Menu: Alarms &amp; Events -&gt; View Active</b></p> <p>Filter Tasks Graph</p> <p>NO_rlghnc_grp</p> <table border="1"> <thead> <tr> <th>Seq #</th> <th>Event ID</th> <th>Timestamp</th> <th>Severity</th> <th>Product</th> <th>Process</th> <th>NE</th> </tr> </thead> <tbody> <tr> <td>350</td> <td>10200</td> <td>2015-08-12 15:40:57.436 UTC</td> <td>MINOR</td> <td>OAM</td> <td>apwSoapServer</td> <td>NO_RLGS</td> </tr> </tbody> </table> <p>Alarm Text: Remote Database re-initialization in progress Additional Info: Remote Database re-initialization in progress</p>	Seq #	Event ID	Timestamp	Severity	Product	Process	NE	350	10200	2015-08-12 15:40:57.436 UTC	MINOR	OAM	apwSoapServer	NO_RLGS							
Seq #	Event ID	Timestamp	Severity	Product	Process	NE																	
350	10200	2015-08-12 15:40:57.436 UTC	MINOR	OAM	apwSoapServer	NO_RLGS																	
<div style="display: flex; align-items: center;">  <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> </div>																							
<p>31.</p> <p><input type="checkbox"/></p>	<p><b>SDS VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b> → Status &amp; Manage → Server</p> <p>...as shown on the right.</p>	 <p>Connected using VIP to dts3-sds-b (ACTIVE NETWORK OAM&amp;P)</p> <p><b>Main Menu: Status &amp; Manage -&gt; Servers</b></p> <p>Filter</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> </tr> </thead> <tbody> <tr> <td>dts3-dp-1</td> <td>sds_soam</td> <td>Enabl</td> </tr> <tr> <td>dts3-drno-a</td> <td>sds_dr_noamp</td> <td>Enabl</td> </tr> <tr> <td>dts3-qs-1</td> <td>sds_noamp</td> <td>Enabl</td> </tr> <tr> <td>dts3-sds-a</td> <td>sds_noamp</td> <td>Enabl</td> </tr> <tr> <td>dts3-sds-b</td> <td>sds_noamp</td> <td>Enabl</td> </tr> </tbody> </table> <p>Stop Restart Reboot NTP Sync Report</p>	Server Hostname	Network Element	Appl State	dts3-dp-1	sds_soam	Enabl	dts3-drno-a	sds_dr_noamp	Enabl	dts3-qs-1	sds_noamp	Enabl	dts3-sds-a	sds_noamp	Enabl	dts3-sds-b	sds_noamp	Enabl			
Server Hostname	Network Element	Appl State																					
dts3-dp-1	sds_soam	Enabl																					
dts3-drno-a	sds_dr_noamp	Enabl																					
dts3-qs-1	sds_noamp	Enabl																					
dts3-sds-a	sds_noamp	Enabl																					
dts3-sds-b	sds_noamp	Enabl																					
<p>32.</p> <p><input type="checkbox"/></p>	<p><b>SDS VIP:</b></p> <p>1) The “A” and “B” SDS servers should now appear in the right panel.</p> <p>2) Verify that the “DB” status shows “Norm” and the “Proc” status shows “Man” for both servers before proceeding to the next Step.</p>	 <p><b>Main Menu: Status &amp; Manage -&gt; Server</b></p> <p>Filter</p> <table border="1"> <thead> <tr> <th>Network Element</th> <th>Server Hostname</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>sds_mvsnvc</td> <td>sds-mvsnvc-a</td> <td>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>sds_mvsnvc</td> <td>sds-mvsnvc-b</td> <td>Disabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> </tbody> </table>	Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc	sds_mvsnvc	sds-mvsnvc-a	Disabled	Err	Norm	Norm	Man	sds_mvsnvc	sds-mvsnvc-b	Disabled	Warn	Norm	Norm	Man
Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc																	
sds_mvsnvc	sds-mvsnvc-a	Disabled	Err	Norm	Norm	Man																	
sds_mvsnvc	sds-mvsnvc-b	Disabled	Warn	Norm	Norm	Man																	

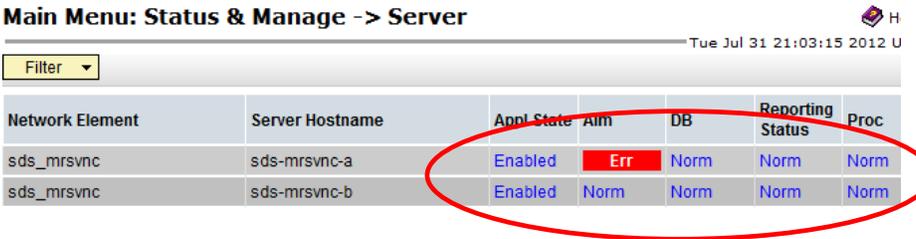
**Procedure 3:** Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM site only)

Step	Procedure	Result																					
<p>33.</p> <p><input type="checkbox"/></p>	<p><b>SDS VIP:</b></p> <p>1) Using the mouse, select <b>SDS 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>SDS Server A</b> stating: <b>“Successfully restarted application”</b>.</p>	<table border="1"> <thead> <tr> <th>Network Element</th> <th>Server Hostname</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>sds_mvsvnc</td> <td>sds-mrvsvnc-a</td> <td>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>sds_mvsvnc</td> <td>sds-mrvsvnc-b</td> <td>Disabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> </tbody> </table>   	Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc	sds_mvsvnc	sds-mrvsvnc-a	Disabled	Err	Norm	Norm	Man	sds_mvsvnc	sds-mrvsvnc-b	Disabled	Warn	Norm	Norm	Man
Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc																	
sds_mvsvnc	sds-mrvsvnc-a	Disabled	Err	Norm	Norm	Man																	
sds_mvsvnc	sds-mrvsvnc-b	Disabled	Warn	Norm	Norm	Man																	
<p>34.</p> <p><input type="checkbox"/></p>	<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>	 <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> </tr> </thead> <tbody> <tr> <td>dts3-dp-1</td> <td>sds_soam</td> <td>Enabl</td> </tr> <tr> <td>dts3-drno-a</td> <td>sds_dr_noamp</td> <td>Enabl</td> </tr> <tr> <td>dts3-qs-1</td> <td>sds_noamp</td> <td>Enabl</td> </tr> <tr> <td>dts3-sds-a</td> <td>sds_noamp</td> <td>Enabl</td> </tr> <tr> <td>dts3-sds-b</td> <td>sds_noamp</td> <td>Enabl</td> </tr> </tbody> </table>	Server Hostname	Network Element	Appl State	dts3-dp-1	sds_soam	Enabl	dts3-drno-a	sds_dr_noamp	Enabl	dts3-qs-1	sds_noamp	Enabl	dts3-sds-a	sds_noamp	Enabl	dts3-sds-b	sds_noamp	Enabl			
Server Hostname	Network Element	Appl State																					
dts3-dp-1	sds_soam	Enabl																					
dts3-drno-a	sds_dr_noamp	Enabl																					
dts3-qs-1	sds_noamp	Enabl																					
dts3-sds-a	sds_noamp	Enabl																					
dts3-sds-b	sds_noamp	Enabl																					

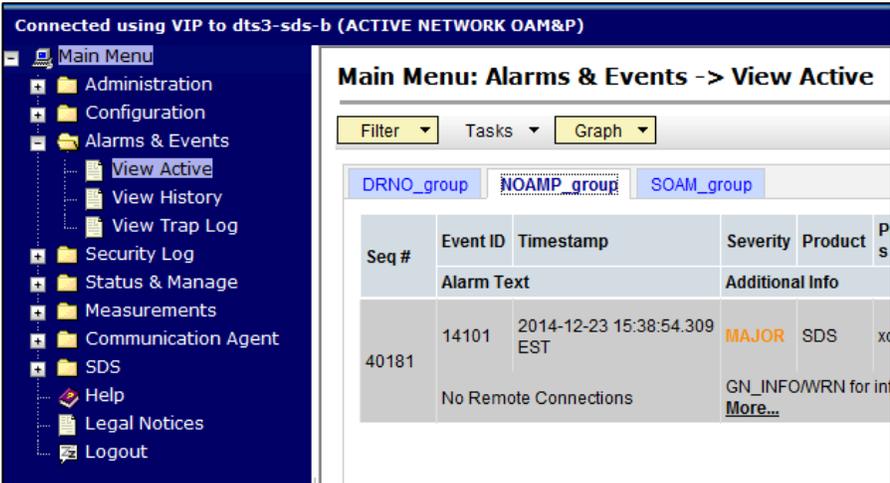
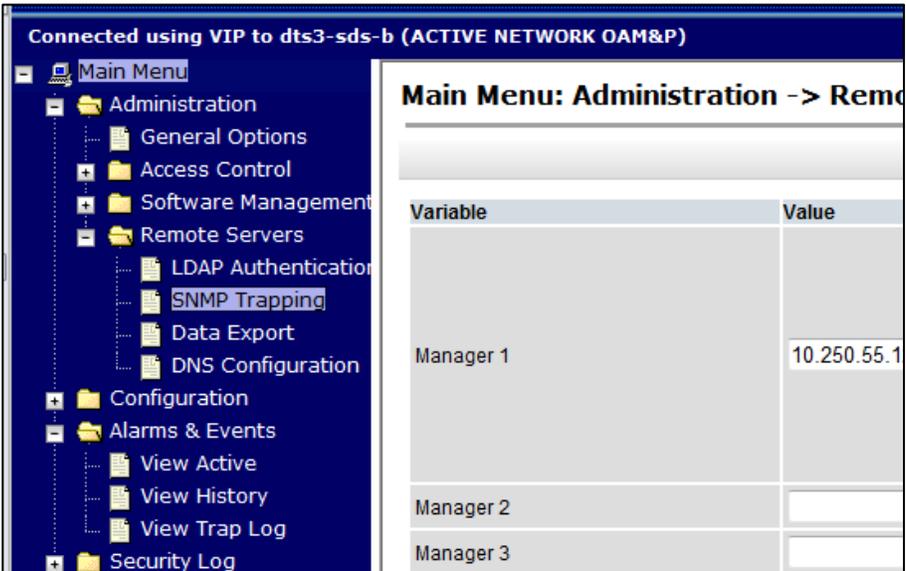
Procedure 3: Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM site only)

Step	Procedure	Result																																			
<p>35.</p> <p><input type="checkbox"/></p>	<p><b>SDS VIP:</b></p> <p>Verify that the “<b>Appl State</b>” now shows “<b>Disabled</b>” and that the “<b>DB, Reporting Status &amp; Proc</b>” status columns all show “<b>Norm</b>” for <b>SDS Server A</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>Network Element</th> <th>Server Hostname</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-a</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-b</td> <td>Disabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> </tbody> </table>	Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc	sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm	sds_mrsvnc	sds-mrsvnc-b	Disabled	Warn	Norm	Norm	Man														
Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc																															
sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm																															
sds_mrsvnc	sds-mrsvnc-b	Disabled	Warn	Norm	Norm	Man																															
<p>36.</p> <p><input type="checkbox"/></p>	<p><b>SDS VIP:</b></p> <p>1) Using the mouse, select <b>SDS 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 <b>SDS Server B</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>Filter ▾</p> <table border="1"> <thead> <tr> <th>Network Element</th> <th>Server Hostname</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-a</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-b</td> <td>Disabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> </tbody> </table> <p>Stop Restart Reboot</p> <p><b>Windows Internet Explorer</b></p> <p>Are you sure you wish to restart application software on the following server(s)? sds-mrsvnc-b</p> <p>OK Cancel</p> <p><b>Main Menu: Status &amp; Manage -&gt; Server [Restart]</b></p> <p>Filter ▾ Status ▾</p> <p><b>Status</b></p> <ul style="list-style-type: none"> <li>• sds-mrsvnc-b: Successfully restarted application.</li> </ul> <table border="1"> <thead> <tr> <th>Network Element</th> <th>Server Hostname</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-b</td> <td>Disabled</td> <td>Warn</td> <td>Norm</td> <td>Err</td> <td>Norm</td> </tr> </tbody> </table>	Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc	sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm	sds_mrsvnc	sds-mrsvnc-b	Disabled	Warn	Norm	Norm	Man	Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc	sds_mrsvnc	sds-mrsvnc-b	Disabled	Warn	Norm	Err	Norm
Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc																															
sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm																															
sds_mrsvnc	sds-mrsvnc-b	Disabled	Warn	Norm	Norm	Man																															
Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc																															
sds_mrsvnc	sds-mrsvnc-b	Disabled	Warn	Norm	Err	Norm																															

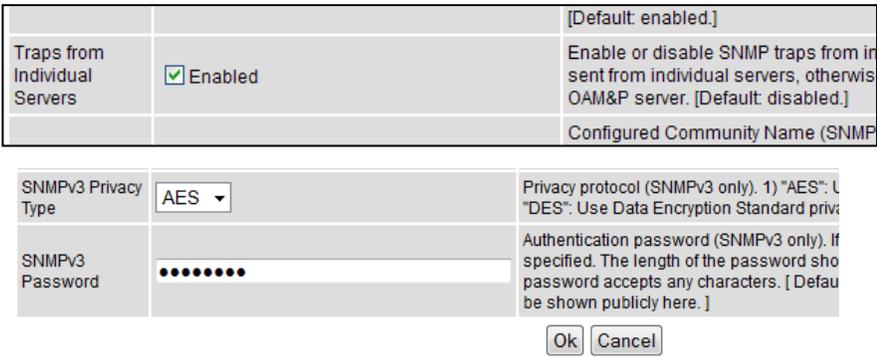
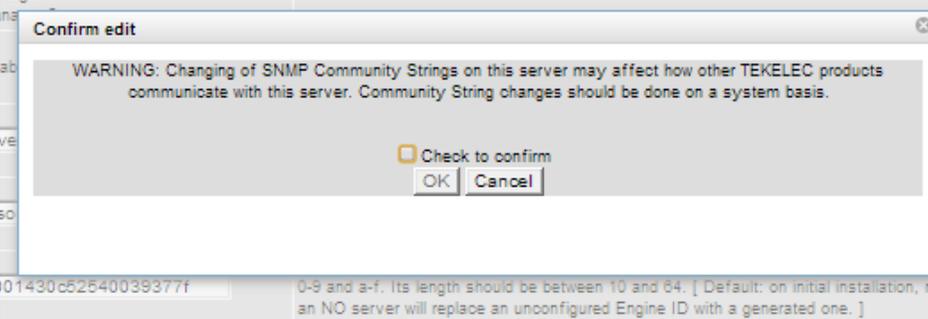
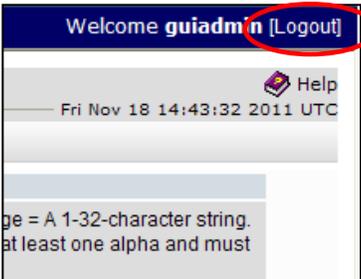
**Procedure 3:** Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM site only)

Step	Procedure	Result																					
<p>37.</p> <p><input type="checkbox"/></p>	<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 A</b> and <b>SDS Server B</b> before proceeding to the next Step.</p>	<p><b>Main Menu: Status &amp; Manage -&gt; Server</b></p>  <table border="1"> <thead> <tr> <th>Network Element</th> <th>Server Hostname</th> <th>Appl State</th> <th>Aim</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-a</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-b</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table>	Network Element	Server Hostname	Appl State	Aim	DB	Reporting Status	Proc	sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm	sds_mrsvnc	sds-mrsvnc-b	Enabled	Norm	Norm	Norm	Norm
Network Element	Server Hostname	Appl State	Aim	DB	Reporting Status	Proc																	
sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm																	
sds_mrsvnc	sds-mrsvnc-b	Enabled	Norm	Norm	Norm	Norm																	
<p>38.</p> <p><input type="checkbox"/></p>	<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>																					
<p>39.</p> <p><input type="checkbox"/></p>	<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 3:** Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM site only)

Step	Procedure	Result
<p>40.</p> <p><input type="checkbox"/></p>	<p><b>SDS VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b>                      → Alarms &amp; Events                      → View Active</p> <p>...as shown on the right.</p>	
<p>41.</p> <p><input type="checkbox"/></p>	<p><b>SDS VIP:</b></p> <p>Verify that <b>Event ID 14101</b> ("No remote provisioning clients are connected") is the only alarm present on the system at this time.</p>	
<p>42.</p> <p><input type="checkbox"/></p>	<p><b>SDS VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b>                      → Administration                      → Remote Servers                      → SNMP Trapping</p> <p>...as shown on the right.</p>	

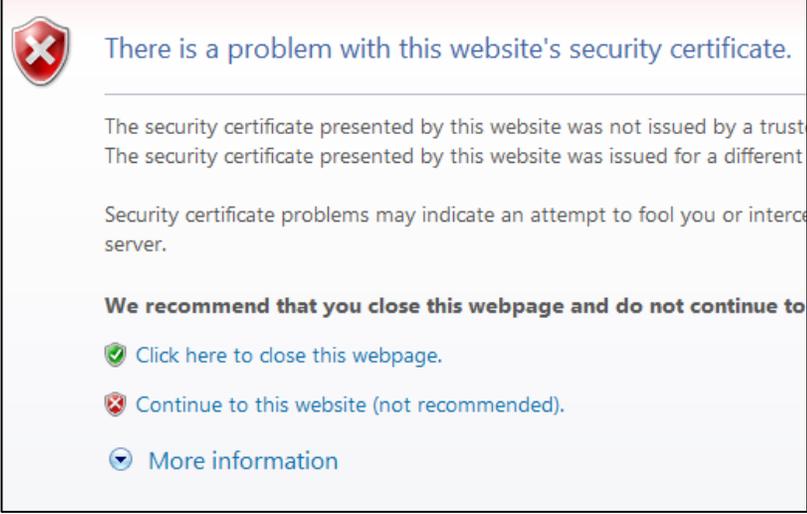
**Procedure 3:** Pairing the SDS NOAM Servers (1<sup>st</sup> SDS NOAM site only)

Step	Procedure	Result
<p>43.</p> <p><input type="checkbox"/></p>	<p><b>SDS VIP:</b></p> <p>1) Using the cursor, place a “check” in the check box for <b>“Traps from Individual Servers”</b>.</p> <p>2) Click the <b>“Ok”</b> dialogue button located at the bottom of the right panel.</p>	 <p>[Default: enabled.]</p> <p>Traps from Individual Servers <input checked="" type="checkbox"/> Enabled Enable or disable SNMP traps from individual servers, otherwise from the OAM&amp;P server. [Default: disabled.]</p> <p>Configured Community Name (SNMP)</p> <p>SNMPv3 Privacy Type AES Privacy protocol (SNMPv3 only). 1) "AES": Use Data Encryption Standard (AES). 2) "DES": Use Data Encryption Standard (DES).</p> <p>SNMPv3 Password Authentication password (SNMPv3 only). If specified, the length of the password should be between 10 and 64 characters. [Default: empty.]</p> <p>Ok Cancel</p>
<p>44.</p>	<p><b>SDS VIP:</b></p> <p>1) Using the cursor, place a “check” in the check box for <b>“Check to confirm”</b>.</p> <p>2) Click the <b>“OK”</b> dialogue button.</p>	 <p>Confirm edit</p> <p>WARNING: Changing of SNMP Community Strings on this server may affect how other TEKELEC products communicate with this server. Community String changes should be done on a system basis.</p> <p><input type="checkbox"/> Check to confirm</p> <p>OK Cancel</p>
<p>45.</p> <p><input type="checkbox"/></p>	<p><b>SDS VIP:</b></p> <p>Click the <b>“Logout”</b> link on the server GUI.</p>	 <p>Welcome <b>guiadmin</b> [Logout]</p> <p>Help</p> <p>Fri Nov 18 14:43:32 2011 UTC</p> <p>Page = A 1-32-character string. at least one alpha and must</p>
<p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>		

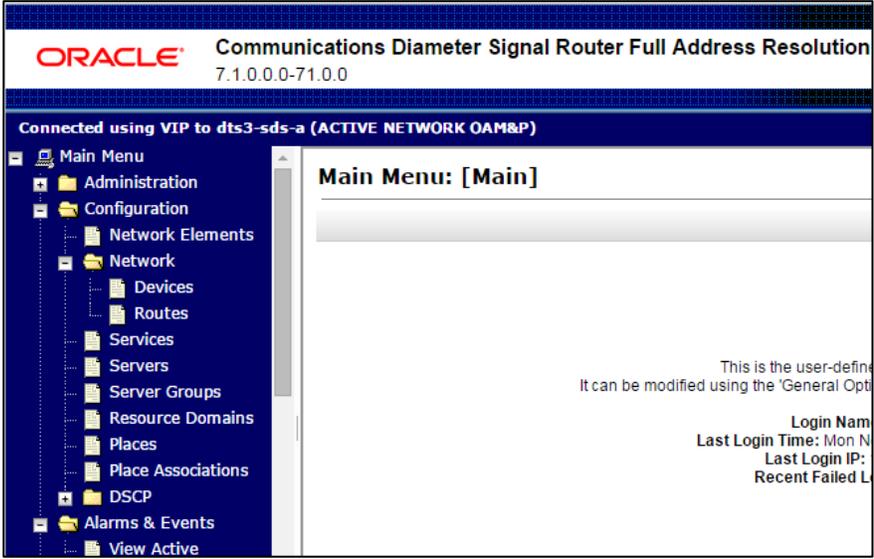
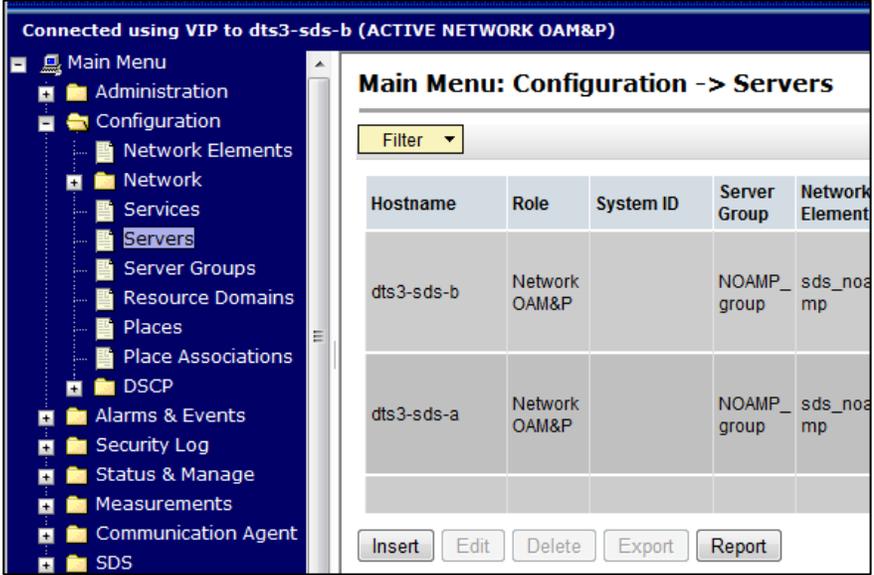
### 5.3 Query Server Installation (All SDS NOAM sites)

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

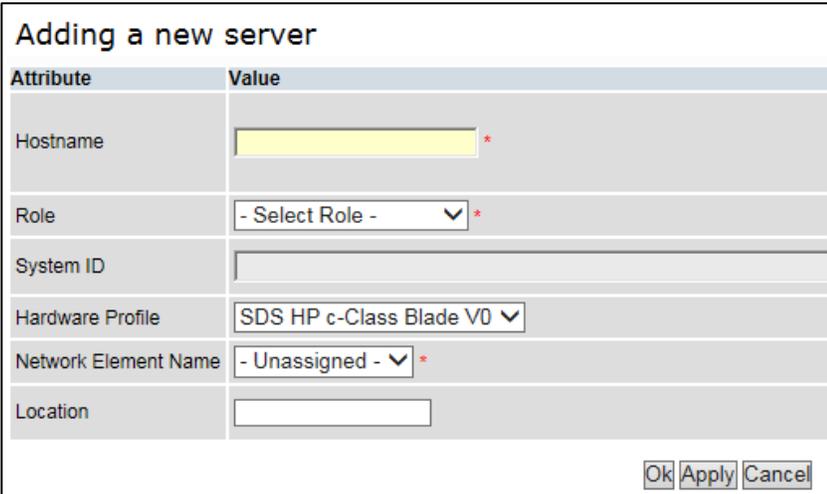
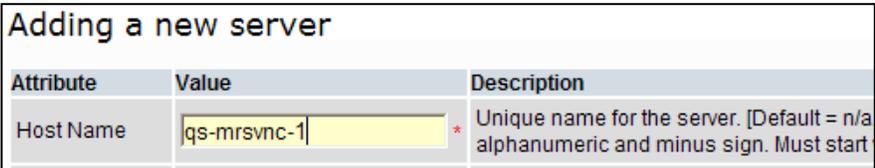
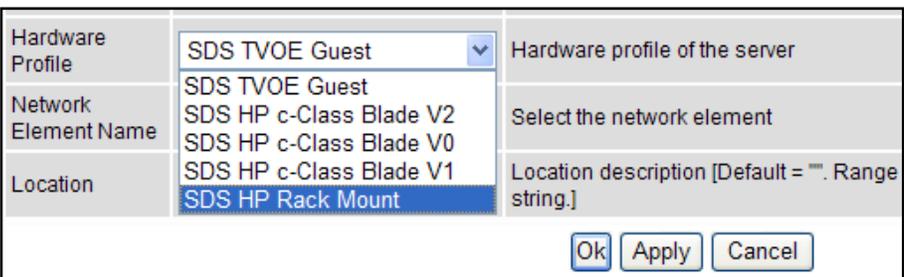
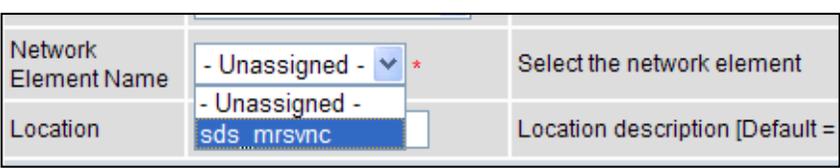
**Procedure 4:** Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result
<p>1.</p> <input type="checkbox"/>	<p><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> <i>If presented with the “security certificate” warning screen shown to the right, choose the following option: “Continue to this website (not recommended)”.</i></p>	
<p>2.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</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>	

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

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

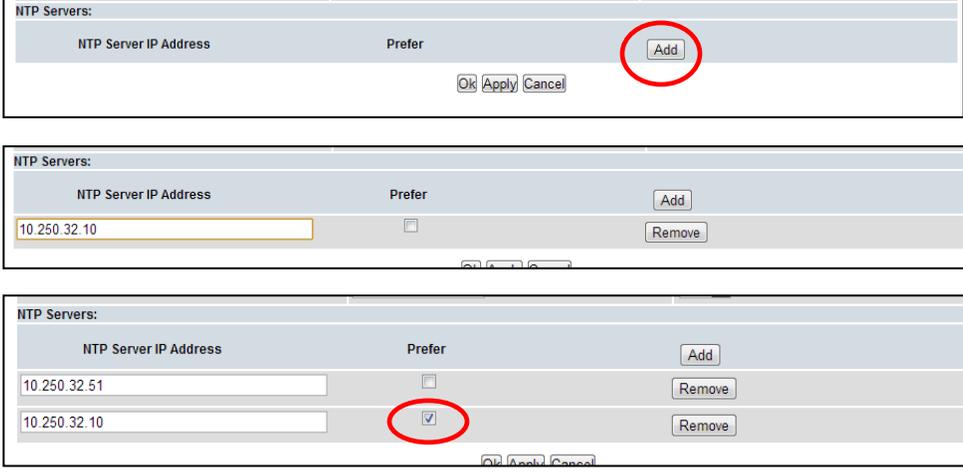
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result
<p>6.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b></p> <p>The user is now presented with the “Adding a new server” configuration screen.</p>	
<p>7.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b></p> <p>Input the assigned “hostname” for the Query Server.</p>	
<p>8.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b></p> <p>Select “<b>QUERY SERVER</b>” for the server “Role” from the pull-down menu.</p>	
<p>9.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b></p> <p>Select “<b>SDS HP Rack Mount</b>” for the <b>Hardware Profile</b> for the SDS from the pull-down menu.</p>	
<p>10.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b></p> <p>Select the <b>Network Element Name</b> of the SDS site where the Query Server is physically located.</p>	

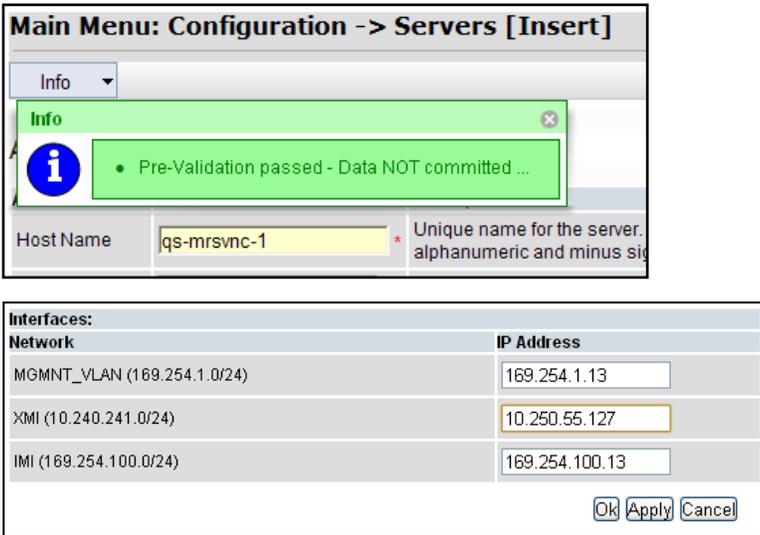
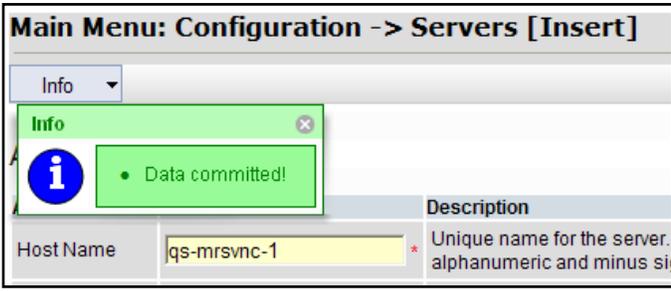
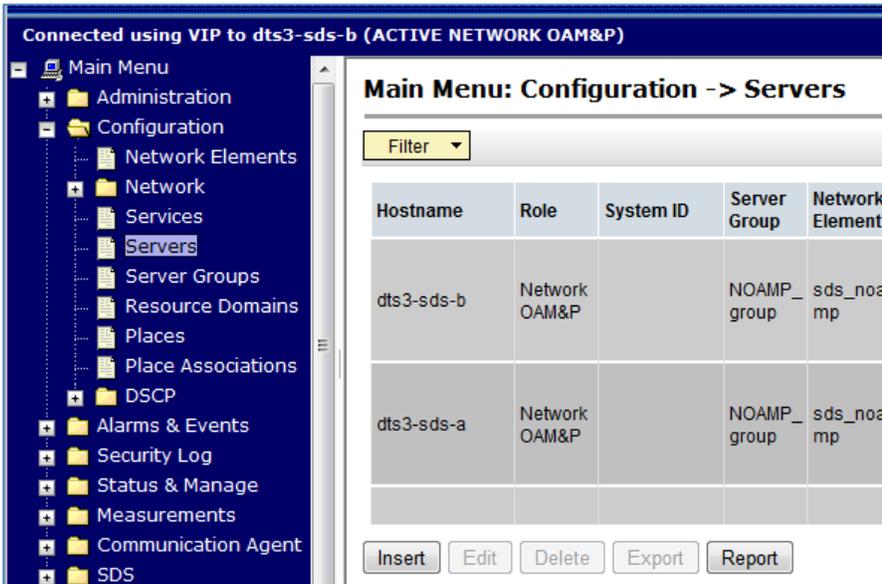
**Procedure 4:** Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result																																					
<p>11.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b> Enter the site location.</p>	<div style="border: 1px solid black; padding: 5px;"> <p>Location <input type="text" value="Morrisville_NC"/> Location description [Default = "", Range = A 15-character string. Valid value is any text string.]</p> </div> <p><b>NOTE:</b> Location is an optional field.</p>																																					
<p>12.</p> <input type="checkbox"/>	<p><b>SDS Server A:</b></p> <p>1) Enter the <b>MGMNT_VLAN</b> IP address for the Query Server.</p> <p>2) Set the <b>MGMNT_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>	<div style="border: 1px solid black; padding: 5px;"> <p><b>Interfaces:</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #e0e0e0;">Network</th> <th style="background-color: #e0e0e0;">IP Address</th> <th style="background-color: #e0e0e0;">Interface</th> <th style="background-color: #e0e0e0;"></th> </tr> </thead> <tbody> <tr> <td>MGMNT_VLAN (169.254.1.0/24)</td> <td><input type="text" value="169.254.1.13"/></td> <td><input type="text" value="bond0"/></td> <td><input checked="" type="checkbox"/> VLAN (2)</td> </tr> <tr> <td>XMI (10.240.241.0/24)</td> <td><input type="text" value="10.250.55.127"/></td> <td><input type="text" value="bond1"/></td> <td><input type="checkbox"/> VLAN (3)</td> </tr> <tr> <td>IMI (169.254.100.0/24)</td> <td><input type="text" value="169.254.100.13"/></td> <td><input type="text" value="bond0"/></td> <td><input checked="" type="checkbox"/> VLAN (4)</td> </tr> </tbody> </table> <p style="text-align: right;"><input type="button" value="Ok"/> <input type="button" value="Apply"/> <input type="button" value="Cancel"/></p> </div> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr style="background-color: #ffff00;"> <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>MGMNT_VLAN</td> <td>169.254.1.13</td> <td rowspan="2">bond0</td> <td></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>MGMNT_VLAN</td> <td>169.254.1.16</td> <td rowspan="2">bond0</td> <td></td> </tr> <tr> <td>IMI</td> <td>169.254.100.16</td> <td></td> </tr> </tbody> </table> <p><b>NOTE_1:</b> These values should be used for all SDS installations.</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		MGMNT_VLAN (169.254.1.0/24)	<input type="text" value="169.254.1.13"/>	<input type="text" value="bond0"/>	<input checked="" type="checkbox"/> VLAN (2)	XMI (10.240.241.0/24)	<input type="text" value="10.250.55.127"/>	<input type="text" value="bond1"/>	<input type="checkbox"/> VLAN (3)	IMI (169.254.100.0/24)	<input type="text" value="169.254.100.13"/>	<input type="text" value="bond0"/>	<input checked="" type="checkbox"/> VLAN (4)	Query Server	Network	IP Address	Interface	VLAN Checkbox	SDS-QS (Primary NE)	MGMNT_VLAN	169.254.1.13	bond0		IMI	169.254.100.13		SDS-QS (DR NE)	MGMNT_VLAN	169.254.1.16	bond0		IMI	169.254.100.16	
Network	IP Address	Interface																																					
MGMNT_VLAN (169.254.1.0/24)	<input type="text" value="169.254.1.13"/>	<input type="text" value="bond0"/>	<input checked="" type="checkbox"/> VLAN (2)																																				
XMI (10.240.241.0/24)	<input type="text" value="10.250.55.127"/>	<input type="text" value="bond1"/>	<input type="checkbox"/> VLAN (3)																																				
IMI (169.254.100.0/24)	<input type="text" value="169.254.100.13"/>	<input type="text" value="bond0"/>	<input checked="" type="checkbox"/> VLAN (4)																																				
Query Server	Network	IP Address	Interface	VLAN Checkbox																																			
SDS-QS (Primary NE)	MGMNT_VLAN	169.254.1.13	bond0																																				
	IMI	169.254.100.13																																					
SDS-QS (DR NE)	MGMNT_VLAN	169.254.1.16	bond0																																				
	IMI	169.254.100.16																																					

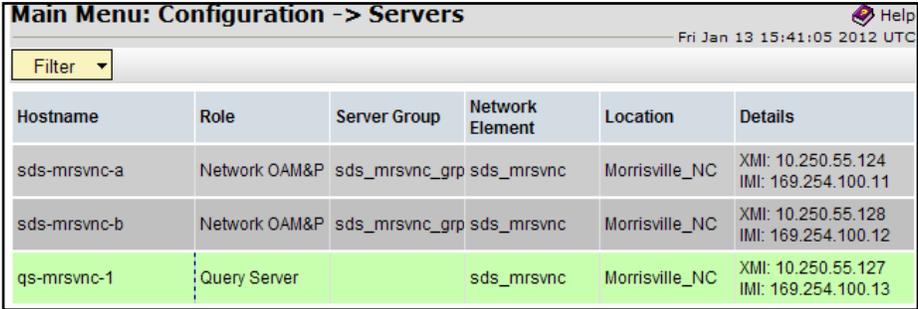
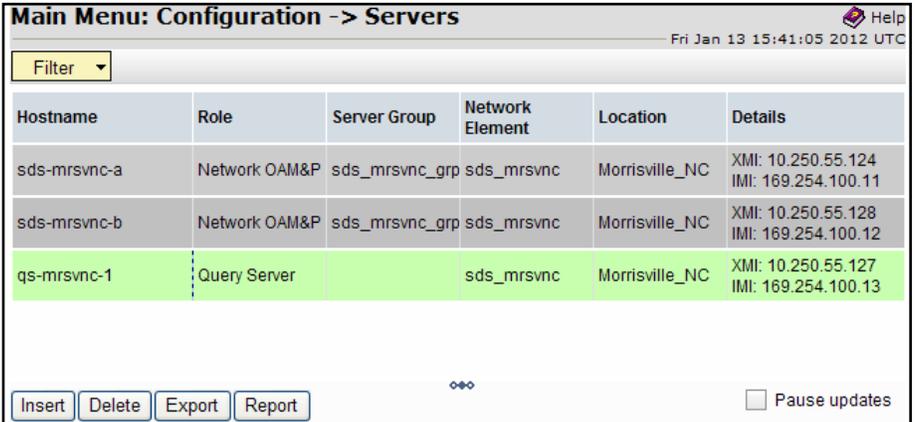
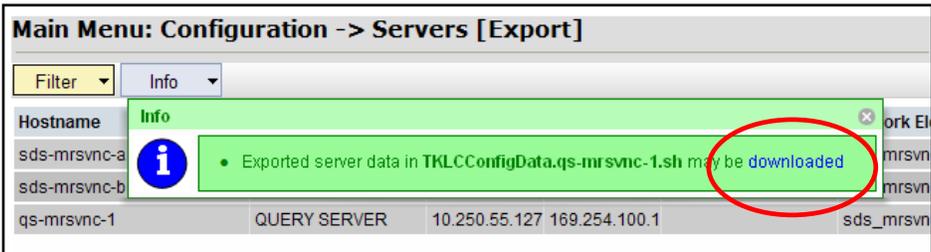
**Procedure 4:** Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result													
<p>13.</p>	<p>1) Enter the customer assigned <b>XMI</b> IP address for the Query Server.</p> <p><b>Layer 3</b> (No VLAN tagging used for XMI)</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> (VLAN tagging used for XMI)</p> <p>2) Set the <b>XMI</b> Interface to “<b>bond0</b>” and “<b>check</b>” the VLAN checkbox.</p>	<table border="1"> <thead> <tr> <th>Query Server</th> <th>Network</th> <th>VLAN tagging (on XMI network)</th> <th>Interface</th> <th>VLAN Checkbox</th> </tr> </thead> <tbody> <tr> <td rowspan="2">SDS-QS (Primary &amp; DR)</td> <td rowspan="2">XMI</td> <td>No</td> <td>bond1</td> <td>✗</td> </tr> <tr> <td>Yes</td> <td>bond0</td> <td>✓</td> </tr> </tbody> </table> <p><b>!!! CAUTION !!!</b></p> <p><i>It is crucial that the correct network configuration be selected in <b>Steps 12 &amp; 13</b> of this procedure. Choosing an incorrect configuration will result in the need to re-install the OS and restart the Query Server installation procedure over from the beginning.</i></p>	Query Server	Network	VLAN tagging (on XMI network)	Interface	VLAN Checkbox	SDS-QS (Primary & DR)	XMI	No	bond1	✗	Yes	bond0	✓
Query Server	Network	VLAN tagging (on XMI network)	Interface	VLAN Checkbox											
SDS-QS (Primary & DR)	XMI	No	bond1	✗											
		Yes	bond0	✓											
<p>14.</p>	<p><b>SDS Server 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) If you have another <b>NTP Server 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>	 <p>The screenshots show the NTP Servers configuration dialog. The first screenshot shows the 'Add' button circled in red. The second screenshot shows the IP address '10.250.32.10' entered in the 'NTP Server IP Address' field. The third screenshot shows the 'Prefer' checkbox for '10.250.32.10' checked and circled in red.</p>													

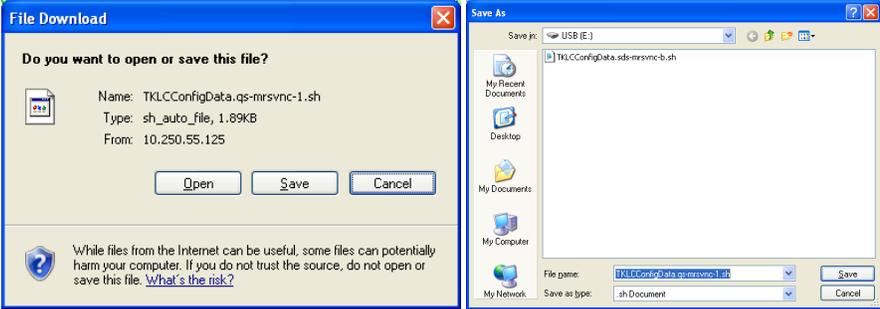
**Procedure 4:** Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result															
<p>15.</p> <p><input type="checkbox"/></p>	<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> <p>Info</p> <p>Info</p> <ul style="list-style-type: none"> <li>Pre-Validation passed - Data NOT committed ...</li> </ul> <p>Host Name: <input type="text" value="qs-mrsvnc-1"/> Unique name for the server, alphanumeric and minus sign</p> <p><b>Interfaces:</b></p> <table border="1"> <thead> <tr> <th>Network</th> <th>IP Address</th> </tr> </thead> <tbody> <tr> <td>MGMT_VLAN (169.254.1.0/24)</td> <td><input type="text" value="169.254.1.13"/></td> </tr> <tr> <td>XMI (10.240.241.0/24)</td> <td><input type="text" value="10.250.55.127"/></td> </tr> <tr> <td>IMI (169.254.100.0/24)</td> <td><input type="text" value="169.254.100.13"/></td> </tr> </tbody> </table> <p>Ok Apply Cancel</p>	Network	IP Address	MGMT_VLAN (169.254.1.0/24)	<input type="text" value="169.254.1.13"/>	XMI (10.240.241.0/24)	<input type="text" value="10.250.55.127"/>	IMI (169.254.100.0/24)	<input type="text" value="169.254.100.13"/>							
Network	IP Address																
MGMT_VLAN (169.254.1.0/24)	<input type="text" value="169.254.1.13"/>																
XMI (10.240.241.0/24)	<input type="text" value="10.250.55.127"/>																
IMI (169.254.100.0/24)	<input type="text" value="169.254.100.13"/>																
<p>16.</p> <p><input type="checkbox"/></p>	<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>	 <p><b>Main Menu: Configuration -&gt; Servers [Insert]</b></p> <p>Info</p> <p>Info</p> <ul style="list-style-type: none"> <li>Data committed!</li> </ul> <p>Host Name: <input type="text" value="qs-mrsvnc-1"/> Unique name for the server, alphanumeric and minus sign</p> <p>Description: Unique name for the server, alphanumeric and minus sign</p>															
<p>17.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b>  → Configuration  → Servers</p> <p>...as shown on the right.</p>	 <p>Connected using VIP to dts3-sds-b (ACTIVE NETWORK OAM&amp;P)</p> <ul style="list-style-type: none"> <li>Main Menu <ul style="list-style-type: none"> <li>Administration</li> <li>Configuration <ul style="list-style-type: none"> <li>Network Elements</li> <li>Network</li> <li>Services</li> <li><b>Servers</b></li> <li>Server Groups</li> <li>Resource Domains</li> <li>Places</li> <li>Place Associations</li> </ul> </li> <li>DSCP</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> </ul> </li> </ul> <p><b>Main Menu: Configuration -&gt; Servers</b></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> </tr> </thead> <tbody> <tr> <td>dts3-sds-b</td> <td>Network OAM&amp;P</td> <td></td> <td>NOAMP_group</td> <td>sds_noamp</td> </tr> <tr> <td>dts3-sds-a</td> <td>Network OAM&amp;P</td> <td></td> <td>NOAMP_group</td> <td>sds_noamp</td> </tr> </tbody> </table> <p>Insert Edit Delete Export Report</p>	Hostname	Role	System ID	Server Group	Network Element	dts3-sds-b	Network OAM&P		NOAMP_group	sds_noamp	dts3-sds-a	Network OAM&P		NOAMP_group	sds_noamp
Hostname	Role	System ID	Server Group	Network Element													
dts3-sds-b	Network OAM&P		NOAMP_group	sds_noamp													
dts3-sds-a	Network OAM&P		NOAMP_group	sds_noamp													

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

Step	Procedure	Result																								
<p>18.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>The “<b>Configuration → Servers</b>” screen now shows the newly added Query Server in the list.</p>	<table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>Server Group</th> <th>Network Element</th> <th>Location</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>sds-mrsvnc-a</td> <td>Network OAM&amp;P</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.124 IMI: 169.254.100.11</td> </tr> <tr> <td>sds-mrsvnc-b</td> <td>Network OAM&amp;P</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.128 IMI: 169.254.100.12</td> </tr> <tr> <td>qs-mrsvnc-1</td> <td>Query Server</td> <td></td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.127 IMI: 169.254.100.13</td> </tr> </tbody> </table>	Hostname	Role	Server Group	Network Element	Location	Details	sds-mrsvnc-a	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.124 IMI: 169.254.100.11	sds-mrsvnc-b	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.128 IMI: 169.254.100.12	qs-mrsvnc-1	Query Server		sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.127 IMI: 169.254.100.13
Hostname	Role	Server Group	Network Element	Location	Details																					
sds-mrsvnc-a	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.124 IMI: 169.254.100.11																					
sds-mrsvnc-b	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.128 IMI: 169.254.100.12																					
qs-mrsvnc-1	Query Server		sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.127 IMI: 169.254.100.13																					
<p>19.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Using the mouse, select the Query Server. The line entry containing the Query Server should now be highlighted in <b>GREEN</b>.</p>	 <p>Main Menu: Configuration -&gt; Servers</p> <p>Filter</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>Server Group</th> <th>Network Element</th> <th>Location</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>sds-mrsvnc-a</td> <td>Network OAM&amp;P</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.124 IMI: 169.254.100.11</td> </tr> <tr> <td>sds-mrsvnc-b</td> <td>Network OAM&amp;P</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.128 IMI: 169.254.100.12</td> </tr> <tr> <td>qs-mrsvnc-1</td> <td>Query Server</td> <td></td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.127 IMI: 169.254.100.13</td> </tr> </tbody> </table>	Hostname	Role	Server Group	Network Element	Location	Details	sds-mrsvnc-a	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.124 IMI: 169.254.100.11	sds-mrsvnc-b	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.128 IMI: 169.254.100.12	qs-mrsvnc-1	Query Server		sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.127 IMI: 169.254.100.13
Hostname	Role	Server Group	Network Element	Location	Details																					
sds-mrsvnc-a	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.124 IMI: 169.254.100.11																					
sds-mrsvnc-b	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.128 IMI: 169.254.100.12																					
qs-mrsvnc-1	Query Server		sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.127 IMI: 169.254.100.13																					
<p>20.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Select the “<b>Export</b>” dialogue button.</p>	 <p>Main Menu: Configuration -&gt; Servers</p> <p>Filter</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>Server Group</th> <th>Network Element</th> <th>Location</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>sds-mrsvnc-a</td> <td>Network OAM&amp;P</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.124 IMI: 169.254.100.11</td> </tr> <tr> <td>sds-mrsvnc-b</td> <td>Network OAM&amp;P</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.128 IMI: 169.254.100.12</td> </tr> <tr> <td>qs-mrsvnc-1</td> <td>Query Server</td> <td></td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.127 IMI: 169.254.100.13</td> </tr> </tbody> </table> <p>Insert Delete Export Report</p> <p>Pause updates</p>	Hostname	Role	Server Group	Network Element	Location	Details	sds-mrsvnc-a	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.124 IMI: 169.254.100.11	sds-mrsvnc-b	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.128 IMI: 169.254.100.12	qs-mrsvnc-1	Query Server		sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.127 IMI: 169.254.100.13
Hostname	Role	Server Group	Network Element	Location	Details																					
sds-mrsvnc-a	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.124 IMI: 169.254.100.11																					
sds-mrsvnc-b	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.128 IMI: 169.254.100.12																					
qs-mrsvnc-1	Query Server		sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.127 IMI: 169.254.100.13																					
<p>21.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>The user will receive a banner information message showing a download link for the Query Server configuration data.</p> <p>Click on the word “<b>downloaded</b>” to download and save the file.</p>	 <p>Main Menu: Configuration -&gt; Servers [Export]</p> <p>Filter Info</p> <p>Info</p> <ul style="list-style-type: none"> <li>Exported server data in <code>TKLCConfigData.qs-mrsvnc-1.sh</code> may be downloaded</li> </ul> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>Server Group</th> <th>Network Element</th> <th>Location</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>sds-mrsvnc-a</td> <td>Network OAM&amp;P</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.124 IMI: 169.254.100.11</td> </tr> <tr> <td>sds-mrsvnc-b</td> <td>Network OAM&amp;P</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.128 IMI: 169.254.100.12</td> </tr> <tr> <td>qs-mrsvnc-1</td> <td>QUERY SERVER</td> <td></td> <td>10.250.55.127 169.254.100.1</td> <td></td> <td>sds_mrsvnc</td> </tr> </tbody> </table>	Hostname	Role	Server Group	Network Element	Location	Details	sds-mrsvnc-a	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.124 IMI: 169.254.100.11	sds-mrsvnc-b	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.128 IMI: 169.254.100.12	qs-mrsvnc-1	QUERY SERVER		10.250.55.127 169.254.100.1		sds_mrsvnc
Hostname	Role	Server Group	Network Element	Location	Details																					
sds-mrsvnc-a	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.124 IMI: 169.254.100.11																					
sds-mrsvnc-b	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.128 IMI: 169.254.100.12																					
qs-mrsvnc-1	QUERY SERVER		10.250.55.127 169.254.100.1		sds_mrsvnc																					

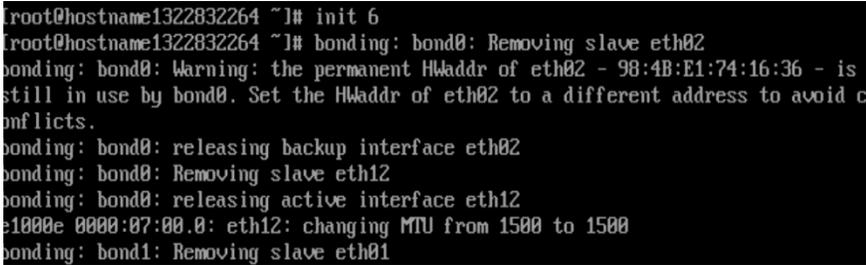
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result
<p>22.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>1) Click the “Save” dialogue button.</p> <p>2) Save the Query Server configuration file to a USB flash drive.</p>	
<p>23.</p> <p><input type="checkbox"/></p>	<p><b>Query Server:</b></p> <p>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>
<p>24.</p> <p><input type="checkbox"/></p>	<p><b>Query Server:</b></p> <p>1) Access the command prompt.</p> <p>2) Log into the server as the “<b>admusr</b>” user.</p>	<pre>login: admusr Using keyboard-interactive authentication. Password: &lt;admusr_password&gt;</pre>
<p>25.</p> <p><input type="checkbox"/></p>	<p><b>Query Server:</b></p> <p>Insert the USB flash drive containing the server configuration file into the USB port on the front panel of the Query Server.</p>	 <p><b>Figure 3 - HP DL360 G6 Front Panel: USB Port</b></p>  <p><b>Figure 4 - HP DL380 Gen8, Front Panel: USB Port</b></p>
<p>26.</p> <p><input type="checkbox"/></p>	<p><b>Query Server:</b></p> <p>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.</p>	<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 &lt;ENTER&gt; key to return to the command prompt.</p>

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

Step	Procedure	Result
<p>27.</p> <input type="checkbox"/>	<p><b>Query Server:</b></p> <p>Verify that the USB flash drive's partition has been mounted by the OS.</p>	<pre>\$ df  grep sdb /dev/sdb1          2003076          8    2003068    1% /media/sdb1</pre> <p><b>NOTE:</b> Search <b>df</b> for the device named in the previous step's output.</p>
<p>28.</p> <input type="checkbox"/>	<p><b>Query Server:</b></p> <p>Copy the configuration file</p>	<pre>\$ sudo cp -p /media/sdb1/TKLCConfigData.qs-mrsvnc-1.sh /var/TKLC/db/filemgmt/.</pre>
<p>29.</p> <input type="checkbox"/>	<p><b>Query Server:</b></p> <p>Copy the Query Server 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></p> <p>TKLCConfigData&lt;.server_hostname&gt;.sh → will translate to →TKLCConfigData.sh</p> <pre>\$ sudo cp -p /var/TKLC/db/filemgmt/TKLCConfigData.qs-mrsvnc-1.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>
<p>30.</p> <input type="checkbox"/>	<p><b>Query Server:</b></p> <p>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> <pre>Broadcast message from root (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.</pre>
<p>31.</p> <input type="checkbox"/>	<p><b>Query Server:</b></p> <p>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 3 - HP DL360 G6 Front Panel: USB Port</b></p>  <p><b>Figure 4 - HP DL380 Gen8, Front Panel: USB Port</b></p>

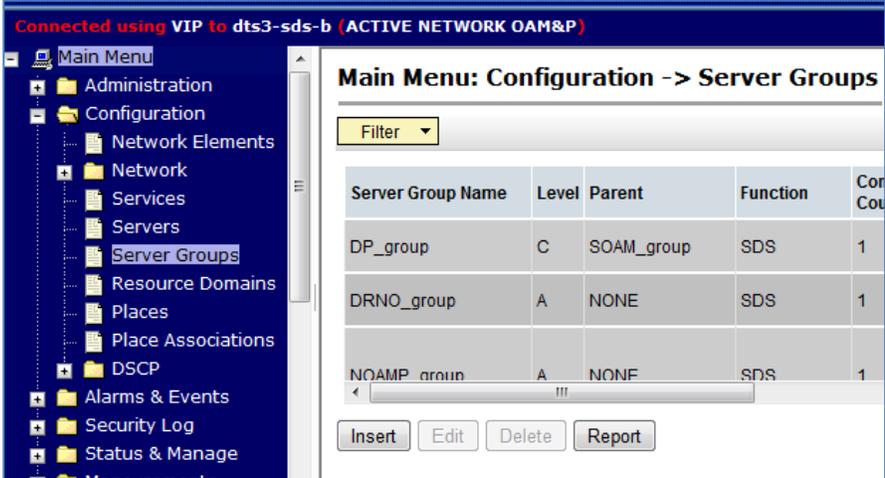
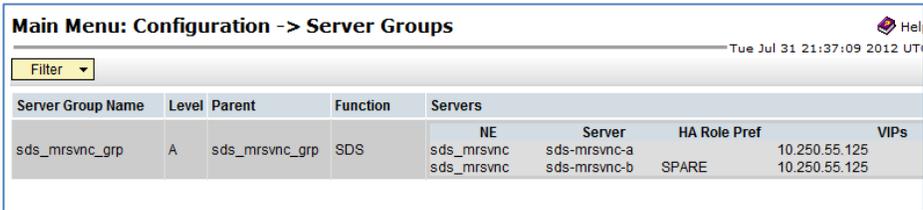
**Procedure 4:** Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result
<p>32.</p> <input type="checkbox"/>	<p><b>Query Server:</b></p> <p>Ignore the output shown and press the &lt;ENTER&gt; key to return to the command prompt.</p>	<pre>Broadcast message from root (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. &lt;ENTER&gt;</pre>
<p>33.</p>	<p><b>SDS Server A or B:</b></p> <p>Verify that the desired Time Zone is currently in use.</p>	<pre>\$ date Mon Aug 10 19:34:51 UTC 2015</pre>
<p>34.</p> <input type="checkbox"/>	<p><b>SDS Server 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><i>Example:</i> <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. The user may replace, as appropriate, with the customer requested time zone for this site installation. See <b>Appendix H</b> for a list of valid time zones.</i></p> <pre>\$ sudo set_ini_tz.pl "Etc/UTC"</pre>
<p>35.</p> <input type="checkbox"/>	<p><b>Query Server:</b></p> <p>Initiate a reboot of the Query Server.</p>	<pre># sudo init 6</pre>
<p>36.</p> <input type="checkbox"/>	<p><b>Query Server:</b></p> <p>Output similar to that shown on the right may be observed as the server initiates a reboot.</p>	 <pre>root@hostname1322832264 ~]# init 6 bonding: bond0: Removing slave eth02 bonding: bond0: Warning: the permanent Hwaddr of eth02 - 98:4B:E1:74:16:36 - is still in use by bond0. Set the Hwaddr of eth02 to a different address to avoid c onflicts. bonding: bond0: releasing backup interface eth02 bonding: bond0: Removing slave eth12 bonding: bond0: releasing active interface eth12 e1000e 0000:07:00.0: eth12: changing MTU from 1500 to 1500 bonding: bond1: Removing slave eth01</pre>
<p>37.</p> <input type="checkbox"/>	<p><b>Query Server:</b></p> <p>1) Access the command prompt.</p> <p>2) Login as the "admusr" user.</p>	<pre>login: admusr Using keyboard-interactive authentication. Password: &lt;admusr_password&gt;</pre>

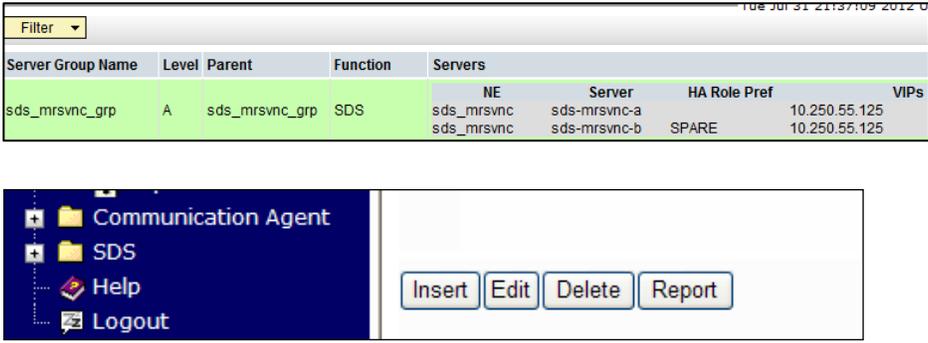
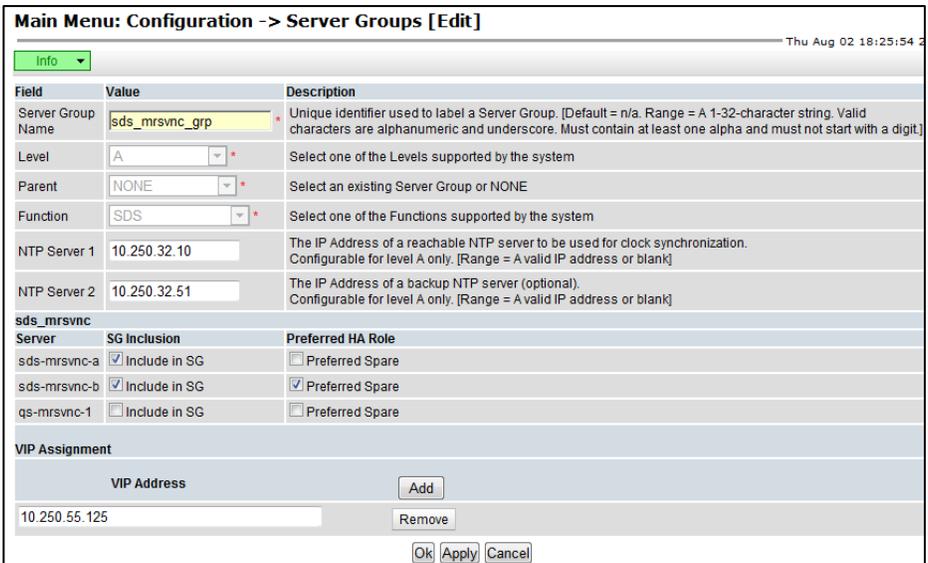
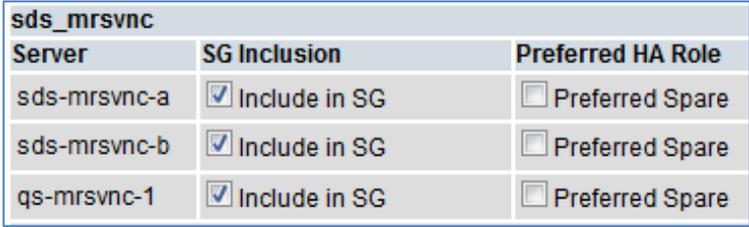
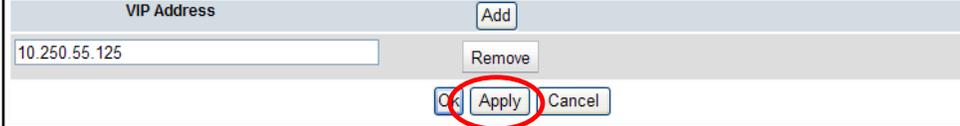
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result
<p>38.</p> <input type="checkbox"/>	<p><b>Query Server:</b></p> <p>1) Verify that the <b>IMI IP address</b> input in <b>Step 12</b> has been applied to <b>“bond0.4”</b>.</p> <p>2) Verify that the <b>XMI IP address</b> input in <b>Step 13</b> has been applied to <b>“bond1”</b>.</p>	<pre>\$ ifconfig  grep in bond0      Link encap:Ethernet  HWaddr 98:4B:E1:74:16:34 bond0.4    Link encap:Ethernet  HWaddr 98:4B:E1:74:16:34             inet addr:169.254.100.13  Bcast:169.254.100.255 Mask:255.255.255.0 bond1      Link encap:Ethernet  HWaddr 98:4B:E1:74:16:36             inet addr:10.250.55.127  Bcast:10.250.55.255  Mask:255.255.255.0 eth01      Link encap:Ethernet  HWaddr 98:4B:E1:74:16:34 eth02      Link encap:Ethernet  HWaddr 98:4B:E1:74:16:36 eth11      Link encap:Ethernet  HWaddr 98:4B:E1:74:16:34 eth12      Link encap:Ethernet  HWaddr 98:4B:E1:74:16:36 lo          Link encap:Local Loopback             inet addr:127.0.0.1  Mask:255.0.0.0</pre>
<p>39.</p> <input type="checkbox"/>	<p><b>Query Server:</b></p> <p>From the <b>Query Server</b>, <b>“ping”</b> the <b>IMI IP address</b> configured for <b>SDS Server A</b>.</p>	<pre>\$ ping -c 5 169.254.100.11 PING 169.254.100.11 (169.254.100.11) 56(84) bytes of data. 64 bytes from 169.254.100.11: icmp_seq=1 ttl=64 time=0.021 ms 64 bytes from 169.254.100.11: icmp_seq=2 ttl=64 time=0.019 ms 64 bytes from 169.254.100.11: icmp_seq=3 ttl=64 time=0.006 ms 64 bytes from 169.254.100.11: icmp_seq=4 ttl=64 time=0.019 ms 64 bytes from 169.254.100.11: icmp_seq=5 ttl=64 time=0.006 ms  --- 169.254.100.11 ping statistics --- 5 packets transmitted, 5 received, 0% packet loss, time 3999ms rtt min/avg/max/mdev = 0.006/0.014/0.021/0.007 ms</pre>
<p>40.</p> <input type="checkbox"/>	<p><b>Query Server:</b></p> <p>Use <b>“ping”</b> to verify that the <b>Query Server</b> can reach the configured <b>XMI Gateway address</b>.</p>	<pre># ping -c 5 10.250.55.1 PING 10.250.55.1 (10.250.55.1) 56(84) bytes of data. 64 bytes from 10.250.55.1: icmp_seq=1 ttl=64 time=0.018 ms 64 bytes from 10.250.55.1: icmp_seq=2 ttl=64 time=0.016 ms 64 bytes from 10.250.55.1: icmp_seq=3 ttl=64 time=0.013 ms 64 bytes from 10.250.55.1: icmp_seq=4 ttl=64 time=0.016 ms 64 bytes from 10.250.55.1: icmp_seq=5 ttl=64 time=0.011 ms  --- 10.250.55.1 ping statistics --- 5 packets transmitted, 5 received, 0% packet loss, time 3999ms rtt min/avg/max/mdev = 0.011/0.014/0.018/0.005 ms</pre>
<p>41.</p> <input type="checkbox"/>	<p><b>Query Server:</b></p> <p>Use the <b>“ntpq”</b> command to verify that the server has connectivity to the assigned <b>NTP server(s)</b>.</p>	<pre>\$ ntpq -np       remote           refid               st t when poll reach  delay  offset  jitter ===== +10.250.32.10  192.5.41.209       2 u 184 256   175 0.220 46.852 35.598 *10.250.32.51  192.5.41.209       2 u 181 256   377 0.176  7.130 22.192</pre>

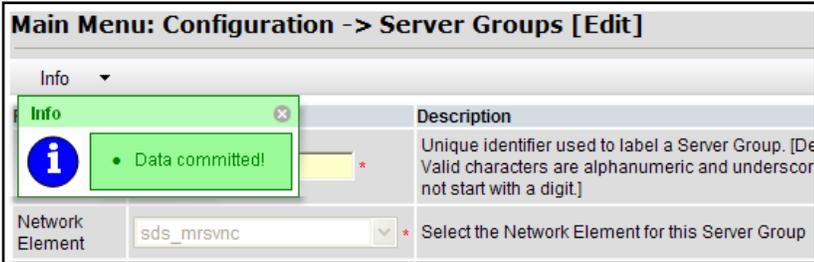
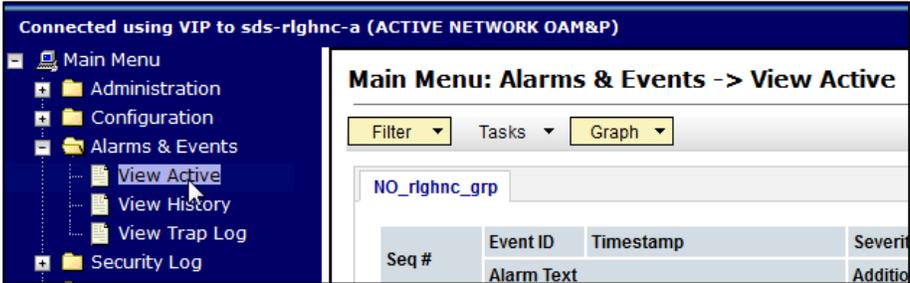
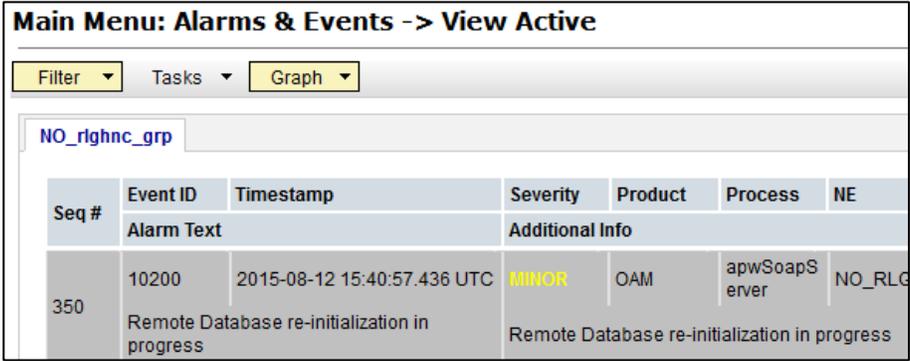
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result																																
<p>42.</p> <p><input type="checkbox"/></p>	<p><b>Query Server:</b></p> <p>Execute a “<b>syscheck</b>” to verify the current health of the server.</p>	<pre> \$ sudo syscheck Running modules in class hardware...      OK Running modules in class disk...         OK Running modules in class net...          OK Running modules in class system...       OK Running modules in class proc...         OK LOG LOCATION: /var/TKLC/log/syscheck/fail_log \$                     </pre>																																
<p>43.</p> <p><input type="checkbox"/></p>	<p><b>Query Server:</b></p> <p>Exit to the login prompt.</p>	<pre> \$ exit                     </pre>																																
<p>44.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b>  → Configuration  → Server Groups</p> <p>...as shown on the right.</p>	 <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Cor</th> </tr> </thead> <tbody> <tr> <td>DP_group</td> <td>C</td> <td>SOAM_group</td> <td>SDS</td> <td>1</td> </tr> <tr> <td>DRNO_group</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>1</td> </tr> <tr> <td>NOAMP_group</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>1</td> </tr> </tbody> </table>	Server Group Name	Level	Parent	Function	Cor	DP_group	C	SOAM_group	SDS	1	DRNO_group	A	NONE	SDS	1	NOAMP_group	A	NONE	SDS	1												
Server Group Name	Level	Parent	Function	Cor																														
DP_group	C	SOAM_group	SDS	1																														
DRNO_group	A	NONE	SDS	1																														
NOAMP_group	A	NONE	SDS	1																														
<p>45.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>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>Function</th> <th>Servers</th> </tr> </thead> <tbody> <tr> <td rowspan="2">sds_mrsvnc_grp</td> <td rowspan="2">A</td> <td rowspan="2">sds_mrsvnc_grp</td> <td rowspan="2">SDS</td> <td>NE</td> </tr> <tr> <td>Server</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>HA Role</td> <td>Pref</td> <td>VIPs</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>sds_mrsvnc</td> <td>sds-mrsvnc-a</td> <td>10.250.55.125</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>sds_mrsvnc</td> <td>sds-mrsvnc-b</td> <td>SPARE 10.250.55.125</td> </tr> </tbody> </table>	Server Group Name	Level	Parent	Function	Servers	sds_mrsvnc_grp	A	sds_mrsvnc_grp	SDS	NE	Server					HA Role	Pref	VIPs					sds_mrsvnc	sds-mrsvnc-a	10.250.55.125					sds_mrsvnc	sds-mrsvnc-b	SPARE 10.250.55.125
Server Group Name	Level	Parent	Function	Servers																														
sds_mrsvnc_grp	A	sds_mrsvnc_grp	SDS	NE																														
				Server																														
				HA Role	Pref	VIPs																												
				sds_mrsvnc	sds-mrsvnc-a	10.250.55.125																												
				sds_mrsvnc	sds-mrsvnc-b	SPARE 10.250.55.125																												

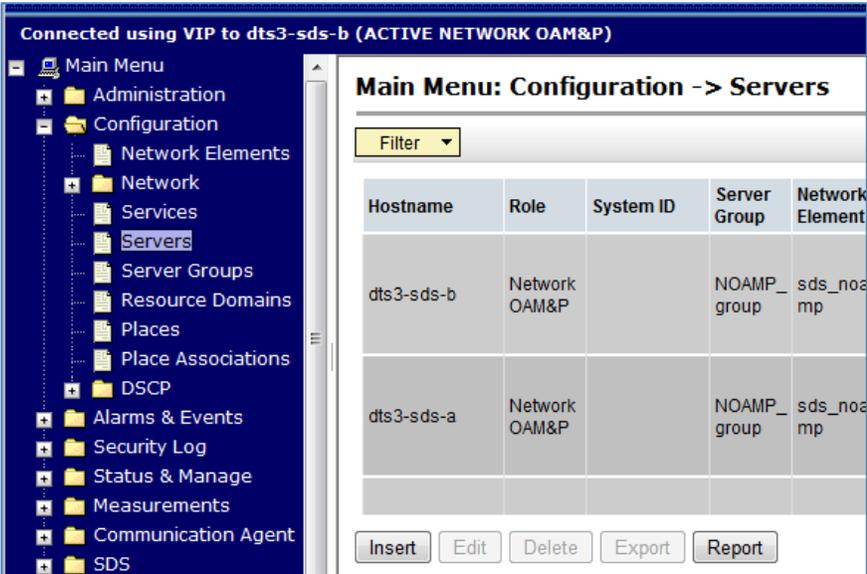
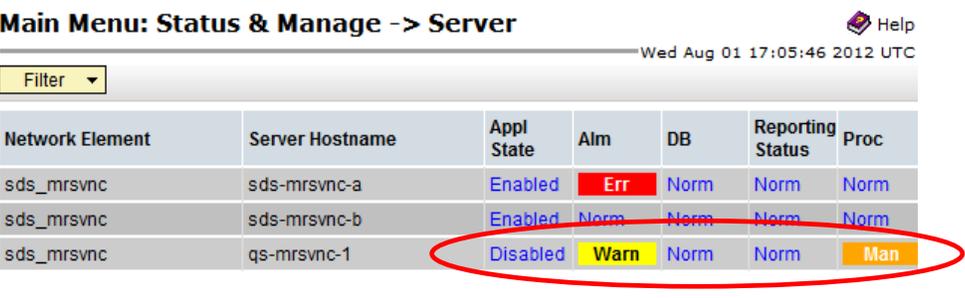
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result
<p>46.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>1) Using the mouse, select the SDS Server Group associated with the Query Server being installed.</p> <p>2) Select the “Edit” dialogue button from the bottom left corner of the screen.</p>	
<p>47.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>The user will be presented with the “Server Groups [Edit]” screen as shown on the right.</p>	
<p>48.</p>	<p><b>Primary SDS VIP:</b></p> <p>Select the “Query Server” from the list of “Available Servers in Network Element” by clicking on the check box next to its name.</p>	
<p>49.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Click the “Apply” dialogue button from the bottom of the screen.</p>	

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

Step	Procedure	Result																					
<p>50.</p> <p><input type="checkbox"/></p>	<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>51.</p>	<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>52.</p>	<p><b>SDS VIP:</b></p> <p>Verify that <b>Event ID 10200</b> (<i>Remote Database re-initialization in progress</i>) is present with the <b>Query Server hostname</b> in the <b>“Instance”</b> field..</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> </tr> </thead> <tbody> <tr> <td>350</td> <td>10200</td> <td>2015-08-12 15:40:57.436 UTC</td> <td>MINOR</td> <td>OAM</td> <td>apwSoapServer</td> <td>NO_RL...</td> </tr> <tr> <td></td> <td colspan="2">Remote Database re-initialization in progress</td> <td colspan="4">Remote Database re-initialization in progress</td> </tr> </tbody> </table>	Seq #	Event ID	Timestamp	Severity	Product	Process	NE	350	10200	2015-08-12 15:40:57.436 UTC	MINOR	OAM	apwSoapServer	NO_RL...		Remote Database re-initialization in progress		Remote Database re-initialization in progress			
Seq #	Event ID	Timestamp	Severity	Product	Process	NE																	
350	10200	2015-08-12 15:40:57.436 UTC	MINOR	OAM	apwSoapServer	NO_RL...																	
	Remote Database re-initialization in progress		Remote Database re-initialization in progress																				
<div style="display: flex; align-items: center;">  <p><b>MONITOR EVENT ID 10200 (<i>Remote Database re-initialization in progress</i>).</b>  <b>DO NOT PROCEED TO THE NEXT STEP UNTIL THE ALARM CLEAR IS RECEIVED.</b></p> </div>																							

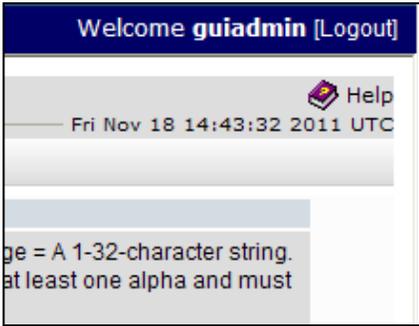
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result
<p>53.</p> <p><input type="checkbox"/></p>	<p><b>Primary 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>	
<p>54.</p> <p><input type="checkbox"/></p>	<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>	

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

Step	Procedure	Result																																																								
<p>55.</p> <p><input type="checkbox"/></p>	<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><i>NOTE: The user may need to use the vertical scroll-bar in order to make the “Restart” dialogue button visible.</i></p>	<p><b>Main Menu: Status &amp; Manage -&gt; Server</b></p> <p>Wed Aug 01 17:06:17 2012 UTC</p> <table border="1"> <thead> <tr> <th>Network Element</th> <th>Server Hostname</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-a</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-b</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>qs-mrsvnc-1</td> <td>Disabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> </tbody> </table> <p>Buttons: Stop, Restart, Reboot</p> <p><b>Windows Internet Explorer</b></p> <p>Are you sure you wish to restart application software on the following server(s)? qs-mrsvnc-1</p> <p>Buttons: OK, Cancel</p> <p><b>Main Menu: Status &amp; Manage -&gt; Server [Restart]</b></p> <p>Wed Aug 01 17:07:41 2012 UTC</p> <table border="1"> <thead> <tr> <th>Network Element</th> <th>Server Hostname</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-a</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-b</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>qs-mrsvnc-1</td> <td>Disabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table> <p>Status dialog: qs-mrsvnc-1: Successfully restarted application.</p>	Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc	sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm	sds_mrsvnc	sds-mrsvnc-b	Enabled	Norm	Norm	Norm	Norm	sds_mrsvnc	qs-mrsvnc-1	Disabled	Warn	Norm	Norm	Man	Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc	sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm	sds_mrsvnc	sds-mrsvnc-b	Enabled	Norm	Norm	Norm	Norm	sds_mrsvnc	qs-mrsvnc-1	Disabled	Warn	Norm	Norm	Norm
Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc																																																				
sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm																																																				
sds_mrsvnc	sds-mrsvnc-b	Enabled	Norm	Norm	Norm	Norm																																																				
sds_mrsvnc	qs-mrsvnc-1	Disabled	Warn	Norm	Norm	Man																																																				
Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc																																																				
sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm																																																				
sds_mrsvnc	sds-mrsvnc-b	Enabled	Norm	Norm	Norm	Norm																																																				
sds_mrsvnc	qs-mrsvnc-1	Disabled	Warn	Norm	Norm	Norm																																																				
<p>56.</p> <p><input type="checkbox"/></p>	<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 the “<b>Query Server</b>”.</p>	<p><b>Main Menu: Status &amp; Manage -&gt; Server</b></p> <p>Wed Aug 01 17:07:41 2012 UTC</p> <table border="1"> <thead> <tr> <th>Network Element</th> <th>Server Hostname</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-a</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-b</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>qs-mrsvnc-1</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table>	Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc	sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm	sds_mrsvnc	sds-mrsvnc-b	Enabled	Norm	Norm	Norm	Norm	sds_mrsvnc	qs-mrsvnc-1	Enabled	Norm	Norm	Norm	Norm																												
Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc																																																				
sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm																																																				
sds_mrsvnc	sds-mrsvnc-b	Enabled	Norm	Norm	Norm	Norm																																																				
sds_mrsvnc	qs-mrsvnc-1	Enabled	Norm	Norm	Norm	Norm																																																				

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

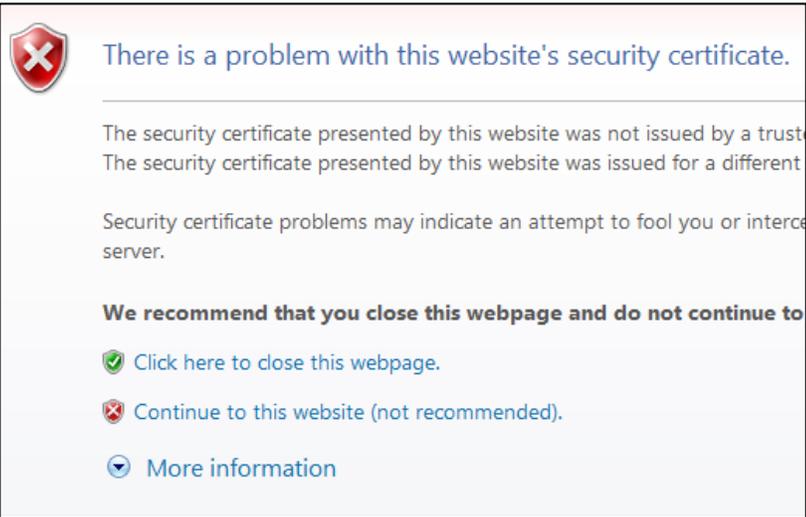
Step	Procedure	Result
<p>57.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b> Click the <b>“Logout”</b> link on the SDS server GUI.</p>	
<p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>		

## 5.4 OAM Installation for the DR SDS NOAM site

### Assumptions:

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

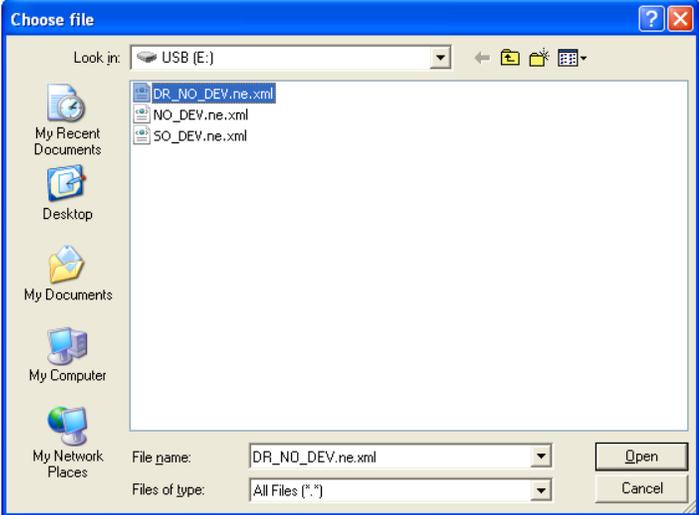
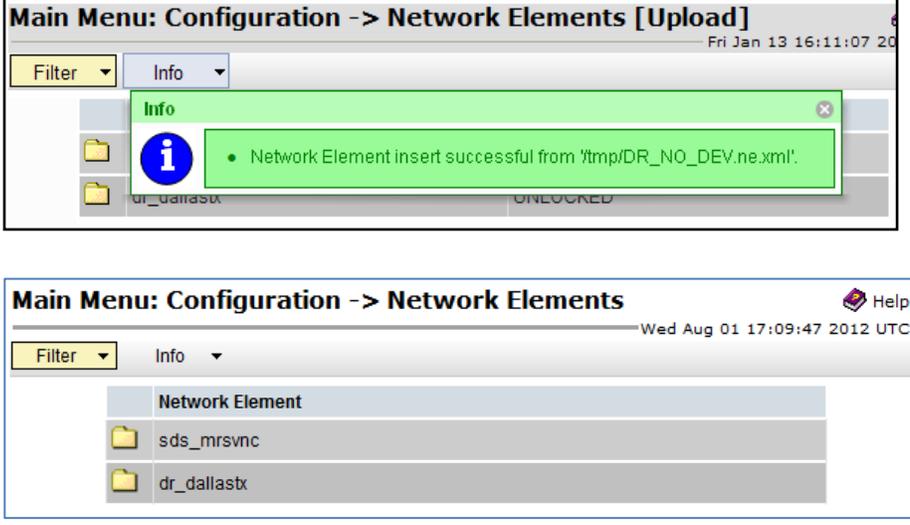
### Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

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

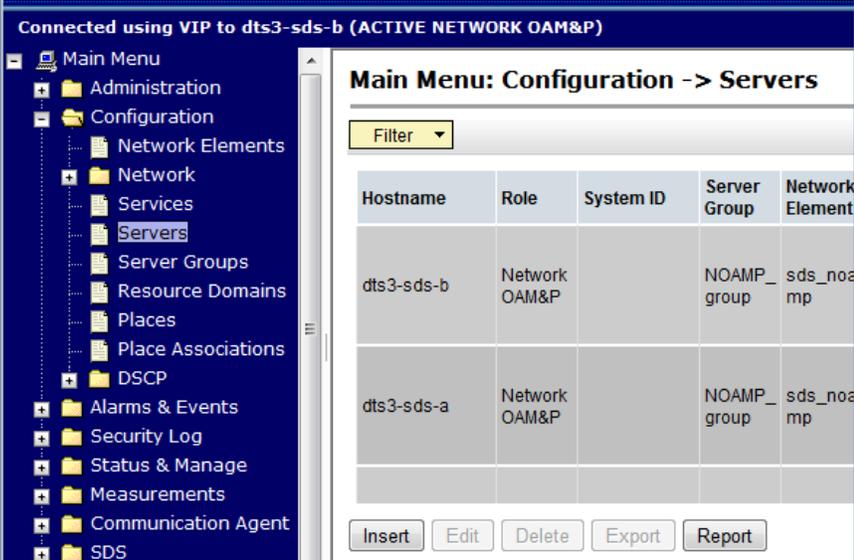
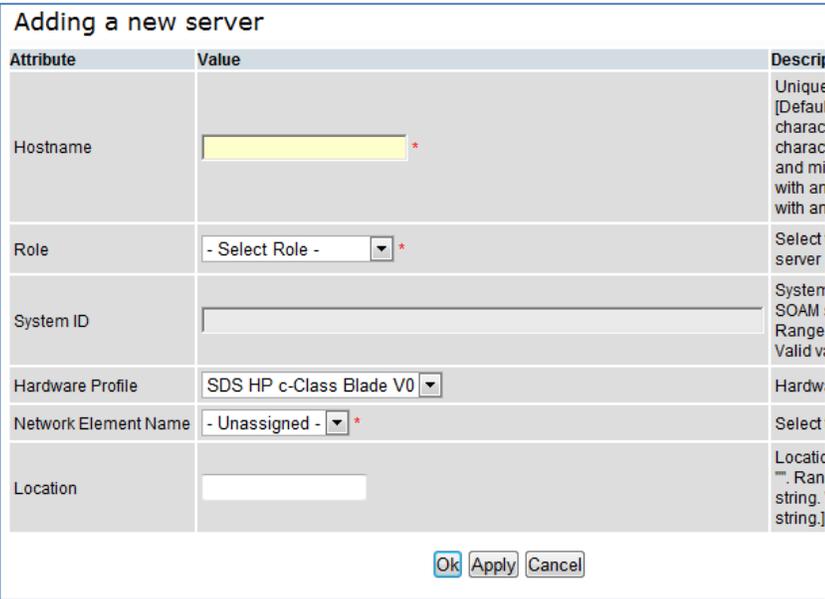
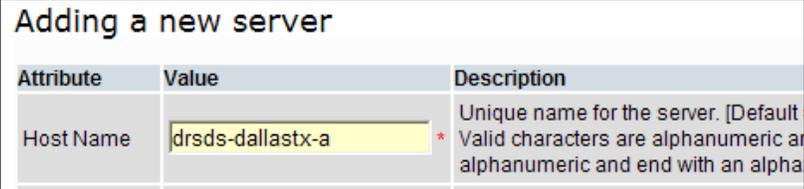
**Procedure 5:** Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
<p>3.</p> <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>4.</p> <p>Select...</p> <p><b>Main Menu</b></p> <p>→ Configuration</p> <p>→ Network Elements</p> <p>...as shown on the right.</p>	<p><b>Primary SDS VIP:</b></p>	
<p>5.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>From the <b>Configuration / Network Elements</b> screen...</p> <p>Select the <b>“Browse”</b> dialogue button (scroll to bottom left corner of screen).</p>	

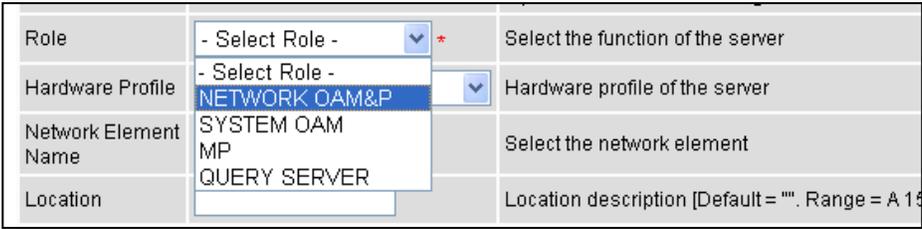
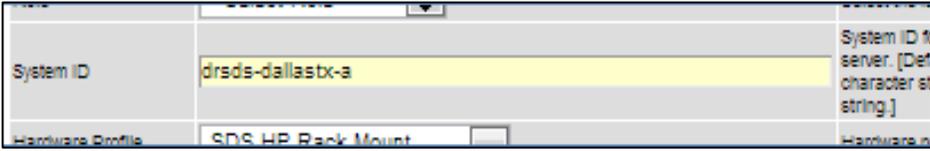
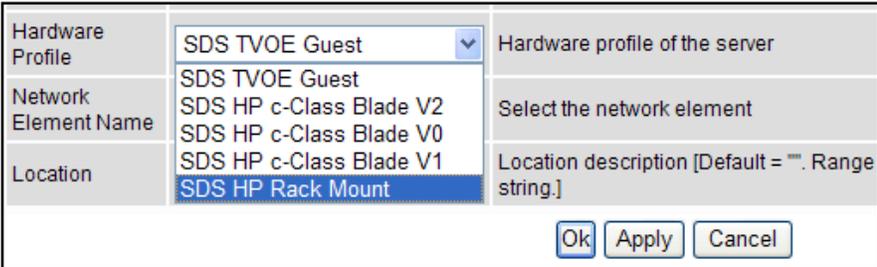
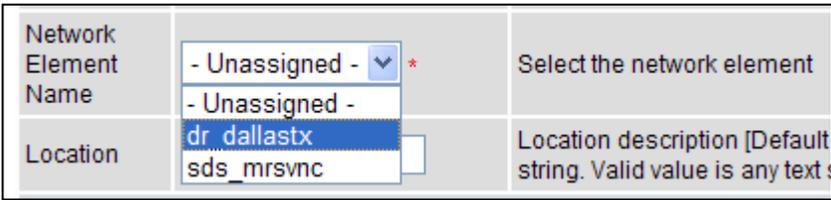
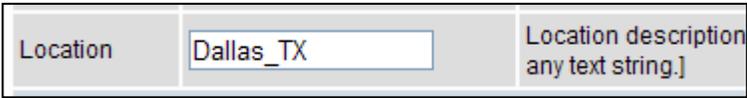
**Procedure 5:** Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
<p>6.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p><b>Note:</b> This step assumes that the <b>.xml</b> files were previously prepared, as described in <b>Appendix F</b>.</p> <p>1) Select the location containing the site <b>.xml</b> file.</p> <p>2) Select the <b>.xml</b> file and click the <b>“Open”</b> dialogue button.</p>	
<p>7.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Select the <b>“Upload File”</b> dialogue button (bottom left corner of screen).</p>	
<p>8.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</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>	

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

Step	Procedure	Result
<p>9.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>1) Select...</p> <p><b>Main Menu</b> → <b>Configuration</b> → <b>Servers</b></p> <p>...as shown on the right.</p> <p>2) Select the "Insert" dialogue button (bottom left corner of screen).</p>	
<p>10.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>The user is now presented with the "Adding a new server" configuration screen.</p>	
<p>11.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Input the assigned "hostname" for OAM Server.</p>	

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

Step	Procedure	Result
<p>12.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b> Select <b>"NETWORK OAM&amp;P"</b> for the server <b>"Role"</b> from the pull-down menu.</p>	
<p>13.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b> Input the assigned hostname again as the <b>"System ID"</b> for the SDS DR Server (A or B).</p>	
<p>14.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b> Select <b>"SDS HP Rack Mount"</b> for the <b>Hardware Profile</b> for the SDS from the pull-down menu.</p>	
<p>15.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b> 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 <b>Step 17</b>.</p>
<p>16.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b> Enter the site location.</p>	 <p><b>NOTE:</b> Location is an optional field.</p>

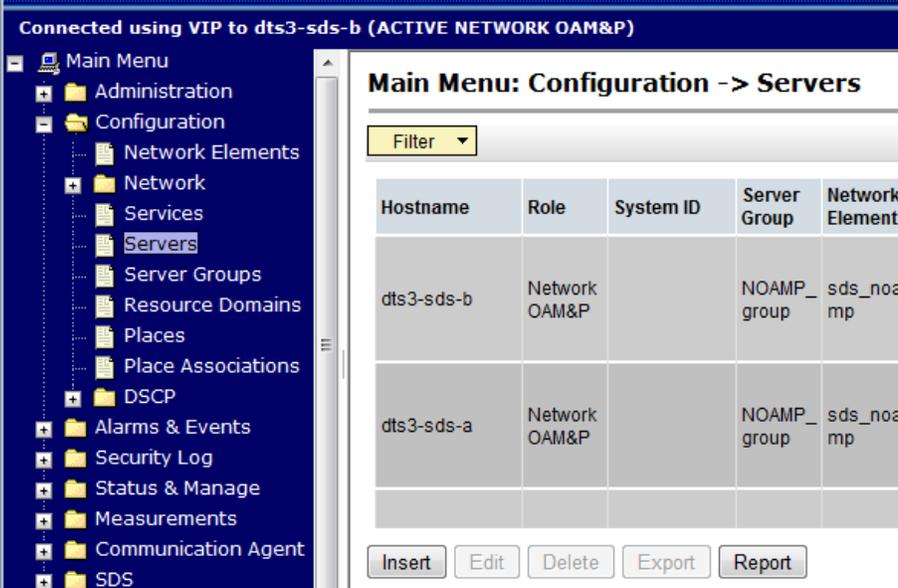
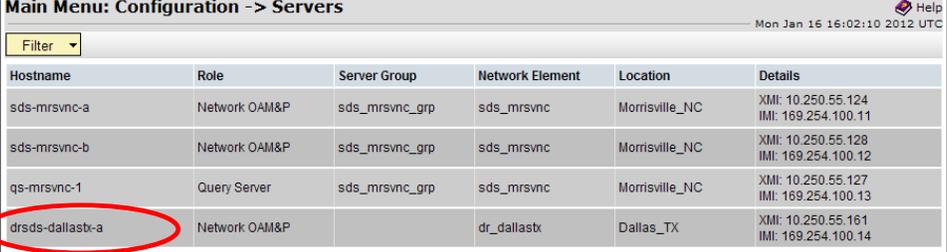
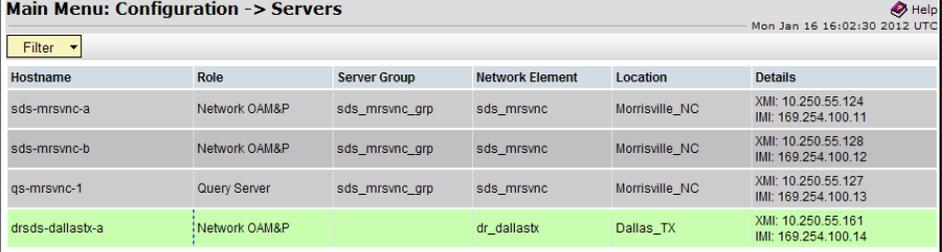
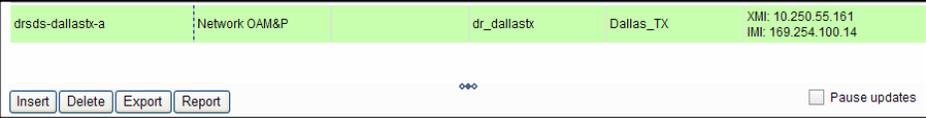
**Procedure 5:** Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result																																			
17.	<p><b>SDS Server A:</b></p> <p>1) Enter the <b>MGMT_VLAN</b> IP address for the DR 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 DR SDS Server.</p> <p>4) Set the <b>IMI</b> Interface to “<b>bond0</b>” and “<b>check</b>” the VLAN checkbox.</p>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p><b>Interfaces:</b></p> <table border="1"> <thead> <tr> <th>Network</th> <th>IP Address</th> <th>Interface</th> <th>VLAN</th> </tr> </thead> <tbody> <tr> <td>MGMT_VLAN (169.254.1.0/24)</td> <td>169.254.1.14</td> <td>bond0</td> <td><input checked="" type="checkbox"/> VLAN (2)</td> </tr> <tr> <td>XMI (10.240.241.0/24)</td> <td>10.250.55.128</td> <td>bond1</td> <td><input type="checkbox"/> VLAN (3)</td> </tr> <tr> <td>IMI (169.254.100.0/24)</td> <td>169.254.100.14</td> <td>bond0</td> <td><input checked="" type="checkbox"/> VLAN (4)</td> </tr> </tbody> </table> <p style="text-align: right;">Ok Apply Cancel</p> </div> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #ffff00;"> <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" style="text-align: center;"><b>DR SDS-A</b></td> <td>MGMT_VLAN</td> <td>169.254.1.14</td> <td rowspan="2" style="text-align: center;">bond0</td> <td rowspan="2" style="text-align: center;"></td> </tr> <tr> <td>IMI</td> <td>169.254.100.14</td> </tr> <tr> <td rowspan="2" style="text-align: center;"><b>DR SDS-B</b></td> <td>MGMT_VLAN</td> <td>169.254.1.15</td> <td rowspan="2" style="text-align: center;">bond0</td> <td rowspan="2" style="text-align: center;"></td> </tr> <tr> <td>IMI</td> <td>169.254.100.15</td> </tr> </tbody> </table> <p><b>NOTE_1:</b> These values should be used for all SDS installations.</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	VLAN	MGMT_VLAN (169.254.1.0/24)	169.254.1.14	bond0	<input checked="" type="checkbox"/> VLAN (2)	XMI (10.240.241.0/24)	10.250.55.128	bond1	<input type="checkbox"/> VLAN (3)	IMI (169.254.100.0/24)	169.254.100.14	bond0	<input checked="" type="checkbox"/> VLAN (4)	SDS Server (DR NOAM)	Network	IP Address	Interface	VLAN Checkbox	<b>DR SDS-A</b>	MGMT_VLAN	169.254.1.14	bond0		IMI	169.254.100.14	<b>DR SDS-B</b>	MGMT_VLAN	169.254.1.15	bond0		IMI	169.254.100.15
Network	IP Address	Interface	VLAN																																		
MGMT_VLAN (169.254.1.0/24)	169.254.1.14	bond0	<input checked="" type="checkbox"/> VLAN (2)																																		
XMI (10.240.241.0/24)	10.250.55.128	bond1	<input type="checkbox"/> VLAN (3)																																		
IMI (169.254.100.0/24)	169.254.100.14	bond0	<input checked="" type="checkbox"/> VLAN (4)																																		
SDS Server (DR NOAM)	Network	IP Address	Interface	VLAN Checkbox																																	
<b>DR SDS-A</b>	MGMT_VLAN	169.254.1.14	bond0																																		
	IMI	169.254.100.14																																			
<b>DR SDS-B</b>	MGMT_VLAN	169.254.1.15	bond0																																		
	IMI	169.254.100.15																																			
18.	<p>1) Enter the customer assigned <b>XMI</b> IP address for the DR SDS Server.</p> <p style="background-color: #ffff00; padding: 2px;"><b>Layer 3</b> (No VLAN tagging used for XMI)</p> <p>2) Set the <b>XMI</b> Interface to “<b>bond1</b>” and “<b>DO NOT check</b>” the VLAN checkbox. - OR -</p> <p style="background-color: #ffff00; padding: 2px;"><b>Layer 2</b> (VLAN tagging used for XMI)</p> <p>2) Set the <b>XMI</b> Interface to “<b>bond0</b>” and “<b>check</b>” the VLAN checkbox.</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #ffff00;"> <th>SDS Server (DR NOAM)</th> <th>Network</th> <th>VLAN tagging (on XMI network)</th> <th>Interface</th> <th>VLAN Checkbox</th> </tr> </thead> <tbody> <tr> <td rowspan="2" style="text-align: center;"><b>DR SDS NOAM Server (A or B)</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;">Yes</td> <td style="text-align: center;">bond0</td> <td style="text-align: center;"></td> </tr> </tbody> </table> <p style="background-color: #ff0000; color: #ff0000; padding: 5px; text-align: center;"><b>!!! CAUTION !!!</b></p> <p><i>It is crucial that the correct network configuration be selected in <b>Steps 17 &amp; 18</b> of this procedure. Choosing an incorrect configuration will result in the need to re-install the OS and restart the DR SDS installation procedures over from the beginning.</i></p>	SDS Server (DR NOAM)	Network	VLAN tagging (on XMI network)	Interface	VLAN Checkbox	<b>DR SDS NOAM Server (A or B)</b>	XMI	No	bond1		Yes	bond0																							
SDS Server (DR NOAM)	Network	VLAN tagging (on XMI network)	Interface	VLAN Checkbox																																	
<b>DR SDS NOAM Server (A or B)</b>	XMI	No	bond1																																		
		Yes	bond0																																		

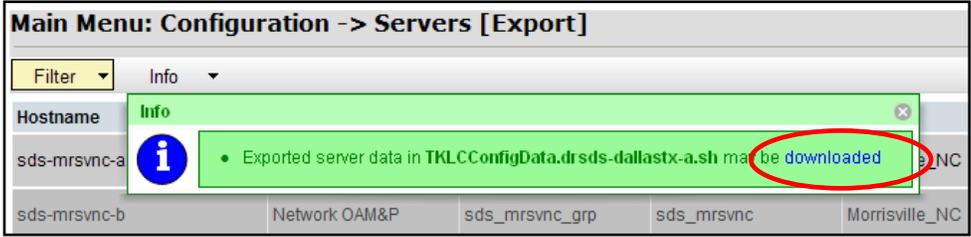
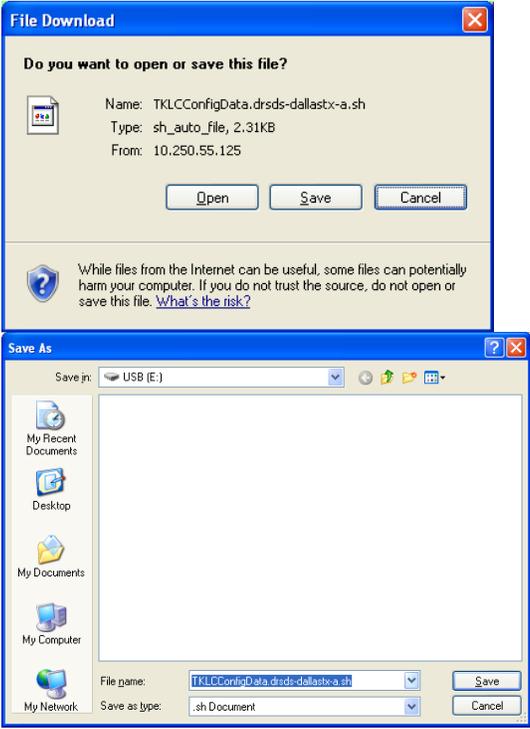
**Procedure 5:** Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result								
<p>19.</p> <p><input type="checkbox"/></p>	<p><b>SDS Server 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) If you have another <b>NTP Server 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>	<p>The result shows three sequential screenshots of the 'NTP Servers' configuration window. The first screenshot shows the 'Add' button circled in red. The second screenshot shows the 'NTP Server IP Address' field containing '10.250.32.10'. The third screenshot shows the 'Prefer' checkbox for the IP address '10.250.32.10' checked and circled in red.</p>								
<p>20.</p> <p><input type="checkbox"/></p>	<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>The result shows a screenshot of the 'Main Menu: Configuration -&gt; Servers [Insert]' dialog. A green info box displays the message 'Pre-Validation passed - Data NOT committed ...'. The 'Host Name' field contains 'drsd-dallastx-a'. Below, the 'Interfaces' table lists network configurations. The 'Apply' button is circled in red.</p> <table border="1"> <thead> <tr> <th>Network</th> <th>IP Address</th> </tr> </thead> <tbody> <tr> <td>MGMNT_VLAN (169.254.1.0/24)</td> <td>169.254.1.14</td> </tr> <tr> <td>XMI (10.240.241.0/24)</td> <td>10.250.55.128</td> </tr> <tr> <td>IMI (169.254.100.0/24)</td> <td>169.254.100.14</td> </tr> </tbody> </table>	Network	IP Address	MGMNT_VLAN (169.254.1.0/24)	169.254.1.14	XMI (10.240.241.0/24)	10.250.55.128	IMI (169.254.100.0/24)	169.254.100.14
Network	IP Address									
MGMNT_VLAN (169.254.1.0/24)	169.254.1.14									
XMI (10.240.241.0/24)	10.250.55.128									
IMI (169.254.100.0/24)	169.254.100.14									
<p>21.</p> <p><input type="checkbox"/></p>	<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>The result shows a screenshot of the 'Main Menu: Configuration -&gt; Servers [Insert]' dialog. A green info box displays the message 'Data committed!'. The 'Host Name' field contains 'drsd-dallastx-a'. The 'Description' field is visible. The 'Apply' button is circled in red.</p>								

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

Step	Procedure	Result																														
<p>22.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b>                      → Configuration                      → Servers</p> <p>...as shown on the right.</p>	 <p>Connected using VIP to dts3-sds-b (ACTIVE NETWORK OAM&amp;P)</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> </tr> </thead> <tbody> <tr> <td>dts3-sds-b</td> <td>Network OAM&amp;P</td> <td></td> <td>NOAMP_group</td> <td>sds_noamp</td> </tr> <tr> <td>dts3-sds-a</td> <td>Network OAM&amp;P</td> <td></td> <td>NOAMP_group</td> <td>sds_noamp</td> </tr> </tbody> </table> <p>Buttons: Insert, Edit, Delete, Export, Report</p>	Hostname	Role	System ID	Server Group	Network Element	dts3-sds-b	Network OAM&P		NOAMP_group	sds_noamp	dts3-sds-a	Network OAM&P		NOAMP_group	sds_noamp															
Hostname	Role	System ID	Server Group	Network Element																												
dts3-sds-b	Network OAM&P		NOAMP_group	sds_noamp																												
dts3-sds-a	Network OAM&P		NOAMP_group	sds_noamp																												
<p>23.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>On the “<b>Configuration</b> → <b>Servers</b>” screen, find the newly added OAM server in the list.</p>	 <p><b>Main Menu: Configuration -&gt; Servers</b></p> <p>Mon Jan 16 16:02:10 2012 UTC</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>Server Group</th> <th>Network Element</th> <th>Location</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>sds-mrsvnc-a</td> <td>Network OAM&amp;P</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.124 IMI: 169.254.100.11</td> </tr> <tr> <td>sds-mrsvnc-b</td> <td>Network OAM&amp;P</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.128 IMI: 169.254.100.12</td> </tr> <tr> <td>qs-mrsvnc-1</td> <td>Query Server</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.127 IMI: 169.254.100.13</td> </tr> <tr> <td>drdsd-dallastx-a</td> <td>Network OAM&amp;P</td> <td></td> <td>dr_dallastx</td> <td>Dallas_TX</td> <td>XMI: 10.250.55.161 IMI: 169.254.100.14</td> </tr> </tbody> </table>	Hostname	Role	Server Group	Network Element	Location	Details	sds-mrsvnc-a	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.124 IMI: 169.254.100.11	sds-mrsvnc-b	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.128 IMI: 169.254.100.12	qs-mrsvnc-1	Query Server	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.127 IMI: 169.254.100.13	drdsd-dallastx-a	Network OAM&P		dr_dallastx	Dallas_TX	XMI: 10.250.55.161 IMI: 169.254.100.14
Hostname	Role	Server Group	Network Element	Location	Details																											
sds-mrsvnc-a	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.124 IMI: 169.254.100.11																											
sds-mrsvnc-b	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.128 IMI: 169.254.100.12																											
qs-mrsvnc-1	Query Server	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.127 IMI: 169.254.100.13																											
drdsd-dallastx-a	Network OAM&P		dr_dallastx	Dallas_TX	XMI: 10.250.55.161 IMI: 169.254.100.14																											
<p>24.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Use the cursor to select the new OAM server entry added in the <b>Steps 10 - 21</b>.</p> <p>The row containing the server should now be highlighted.</p>	 <p><b>Main Menu: Configuration -&gt; Servers</b></p> <p>Mon Jan 16 16:02:30 2012 UTC</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>Server Group</th> <th>Network Element</th> <th>Location</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>sds-mrsvnc-a</td> <td>Network OAM&amp;P</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.124 IMI: 169.254.100.11</td> </tr> <tr> <td>sds-mrsvnc-b</td> <td>Network OAM&amp;P</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.128 IMI: 169.254.100.12</td> </tr> <tr> <td>qs-mrsvnc-1</td> <td>Query Server</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.127 IMI: 169.254.100.13</td> </tr> <tr> <td>drdsd-dallastx-a</td> <td>Network OAM&amp;P</td> <td></td> <td>dr_dallastx</td> <td>Dallas_TX</td> <td>XMI: 10.250.55.161 IMI: 169.254.100.14</td> </tr> </tbody> </table>	Hostname	Role	Server Group	Network Element	Location	Details	sds-mrsvnc-a	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.124 IMI: 169.254.100.11	sds-mrsvnc-b	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.128 IMI: 169.254.100.12	qs-mrsvnc-1	Query Server	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.127 IMI: 169.254.100.13	drdsd-dallastx-a	Network OAM&P		dr_dallastx	Dallas_TX	XMI: 10.250.55.161 IMI: 169.254.100.14
Hostname	Role	Server Group	Network Element	Location	Details																											
sds-mrsvnc-a	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.124 IMI: 169.254.100.11																											
sds-mrsvnc-b	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.128 IMI: 169.254.100.12																											
qs-mrsvnc-1	Query Server	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.127 IMI: 169.254.100.13																											
drdsd-dallastx-a	Network OAM&P		dr_dallastx	Dallas_TX	XMI: 10.250.55.161 IMI: 169.254.100.14																											
<p>25.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Select the “<b>Export</b>” dialogue button (bottom left corner of screen).</p>	 <p>Buttons: Insert, Delete, Export, Report</p> <p>Pause updates <input type="checkbox"/></p>																														

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

Step	Procedure	Result
<p>26.</p> <p><input type="checkbox"/></p>	<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 OAM server configuration file.</p>	
<p>27.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>1) Click the “Save” dialogue button.</p> <p>2) Save the OAM server configuration file to a USB flash drive.</p>	
<p>28.</p> <p><input type="checkbox"/></p>	<p><b>OAM Server:</b></p> <p>Access the server console.</p>	<p>Connect to the <b>OAM Server</b> console using one of the access methods described in <b>Section 2.3</b>.</p>
<p>29.</p> <p><input type="checkbox"/></p>	<p><b>OAM Server:</b></p> <p>1) Access the command prompt.</p> <p>2) Log into the server as the <b>“admusr”</b> user.</p>	<pre>login: admusr Using keyboard-interactive authentication. Password: &lt;admusr_password&gt;</pre>

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

Step	Procedure	Result
<p>30.</p> <input type="checkbox"/>	<p><b>OAM Server:</b></p> <p>Insert the USB flash drive containing the server configuration file into the USB port on the front panel of the server.</p>	 <p>Figure 3 - HP DL360 G6 Front Panel: <b>USB Port</b></p>  <p>Figure 4 - HP DL380 Gen8, Front Panel: <b>USB Port</b></p>
<p>31.</p> <input type="checkbox"/>	<p><b>OAM Server:</b></p> <p>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.</p>	<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 &lt;ENTER&gt; key to return to the command prompt.</p>
<p>32.</p> <input type="checkbox"/>	<p><b>OAM Server:</b></p> <p>Verify that the USB flash drive's partition has been mounted by the OS</p>	<pre>\$ df  grep sdb /dev/sdb1          2003076          8   2003068    1% /media/sdb1</pre>
<p>33.</p> <input type="checkbox"/>	<p><b>OAM Server:</b></p> <p>Copy the configuration file to the SDS server with the server name as shown in red</p>	<pre>\$ sudo cp -p /media/sdb1/TKLCConfigData.drdsd-dallastx-a.sh /var/TKLC/db/filemgmt/.</pre>
<p>34.</p> <input type="checkbox"/>	<p><b>OAM Server:</b></p> <p>Copy the server configuration file to the “/var/tmp” directory on the server, making sure to rename the file by omitting the server hostname from the file name.</p>	<p><b>Example:</b></p> <p>TKLCConfigData&lt;.server_hostname&gt;.sh → will translate to →TKLCConfigData.sh</p> <pre>\$ sudo cp -p /var/TKLC/db/filemgmt/TKLCConfigData.drdsd-dallastx-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>

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

Step	Procedure	Result
<p>35.</p> <input type="checkbox"/>	<p><b>OAM Server:</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> <pre>Broadcast message from root (Mon Dec 14 15:47:33 2009):  Server configuration completed successfully! See /var/TKLC/appw/logs/Process/install.log for details.  Please remove the USB flash drive if connected and reboot the server.  &lt;ENTER&gt;</pre> <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>
<p>36.</p> <input type="checkbox"/>	<p><b>OAM Server:</b></p> <p>Remove the USB flash drive from the USB port on the front panel of <b>OAM 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>Figure 3 - HP DL360 G6 Front Panel: <b>USB Port</b></p>  <p>Figure 4 - HP DL380 Gen8, Front Panel: <b>USB Port</b></p>
<p>37.</p>	<p><b>SDS Server A or B:</b></p> <p>Verify that the desired Time Zone is currently in use.</p>	<pre>\$ date Mon Aug 10 19:34:51 UTC 2015</pre>
<p>38.</p> <input type="checkbox"/>	<p><b>SDS Server 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. The user may replace, as appropriate, with the customer requested time zone for this site installation. See <b>Appendix H</b> for a list of valid time zones.</p> <pre>\$ sudo set_ini_tz.pl "Etc/UTC"</pre>
<p>39.</p> <input type="checkbox"/>	<p><b>OAM Server:</b></p> <p>Initiate a reboot of the OAM server.</p>	<pre>\$ sudo init 6</pre>

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

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

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

Step	Procedure	Result
<div style="display: flex; align-items: center;">  <div> <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) 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> <p><b>ONCE NETWORK CONNECTIVITY IS ESTABLISHED TO THE ASSIGNED NTP IP ADDRESSES, THEN RESTART THIS PROCEDURE BEGINNING WITH STEP 43.</b></p> </div> </div>		
<p>44.</p> <input type="checkbox"/>	<p><b>OAM Server:</b></p> <p>Execute a “<b>syscheck</b>” to verify the current health of the server.</p>	<pre>\$ sudo syscheck Running modules in class hardware...      OK Running modules in class disk...          OK Running modules in class net...           OK Running modules in class system...        OK Running modules in class proc...          OK LOG LOCATION: /var/TKLC/log/syscheck/fail_log</pre>
<p>45.</p> <input type="checkbox"/>	<p><b>OAM Server:</b></p> <p>Exit from the command line to return the server console</p>	<pre># exit logout</pre>
<p>46.</p> <input type="checkbox"/>	<ul style="list-style-type: none"> <li>• <b>Configure DR SDS Server B by repeating steps 9 - 45 of this procedure.</b></li> </ul>	
<div style="display: flex; align-items: center;">  <div> <p><b>IF 4948E-F SWITCH CONFIGURATION HAS NOT BEEN COMPLETED PRIOR TO THIS STEP, STOP AND EXECUTE THE FOLLOWING STEPS:</b></p> <ol style="list-style-type: none"> <li>4) APPENDIX E.1</li> <li>5) APPENDIX E.2 (<i>Appendix E.2 references Appendix E.3 where applicable</i>).</li> <li>6) APPENDIX E.4</li> </ol> </div> </div>		
<p>47.</p> <input type="checkbox"/>	<p><b>DR SDS Server A:</b></p> <p>From DR SDS Server A, “ping” the IMI IP address DR SDS Server B.</p>	<pre>\$ ping -c 5 169.254.100.15 PING 169.254.100.14 (169.254.100.15) 56(84) bytes of data. 64 bytes from 169.254.100.15: icmp_seq=1 ttl=64 time=0.021 ms 64 bytes from 169.254.100.15: icmp_seq=2 ttl=64 time=0.011 ms 64 bytes from 169.254.100.15: icmp_seq=3 ttl=64 time=0.020 ms 64 bytes from 169.254.100.15: icmp_seq=4 ttl=64 time=0.011 ms 64 bytes from 169.254.100.15: icmp_seq=5 ttl=64 time=0.023 ms&lt;CTRL-C&gt;  --- 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</pre>

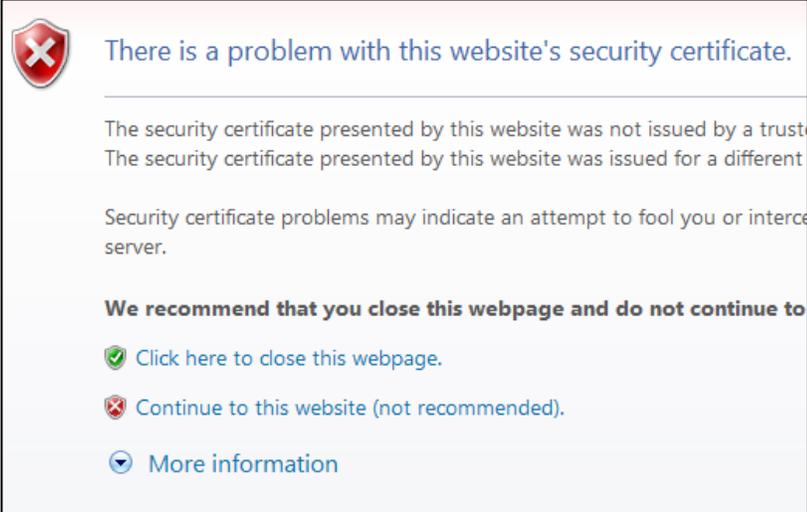
**Procedure 5:** Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
<p>48.</p> <p><input type="checkbox"/></p>	<p><b>DR SDS Server(s): A &amp; B</b></p> <p>Use “ping” to verify that the <b>DR SDS Server</b> can now reach the local <b>XMI Gateway address</b>.</p>	<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>
<p>49.</p>	<p><b>DR SDS Server(s): A &amp; B</b></p> <p>Use “ping” to verify that the <b>DR SDS Server</b> can now reach the <b>Primary SDS VIP address</b>.</p>	<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>
<p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>		

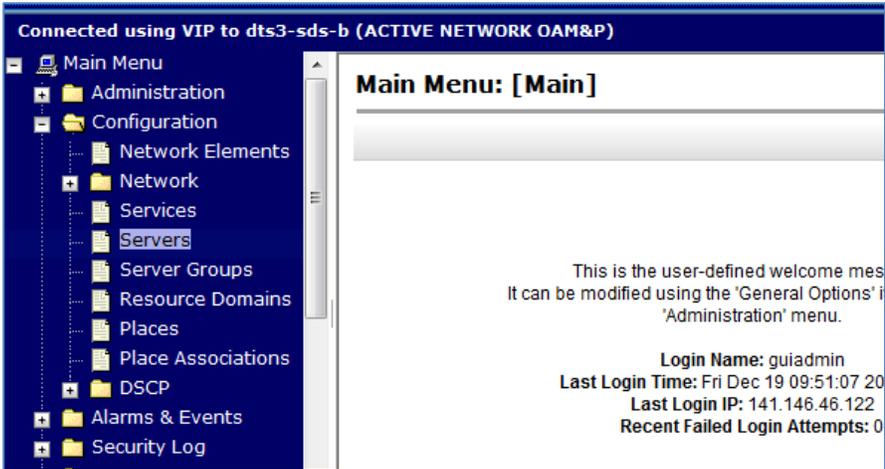
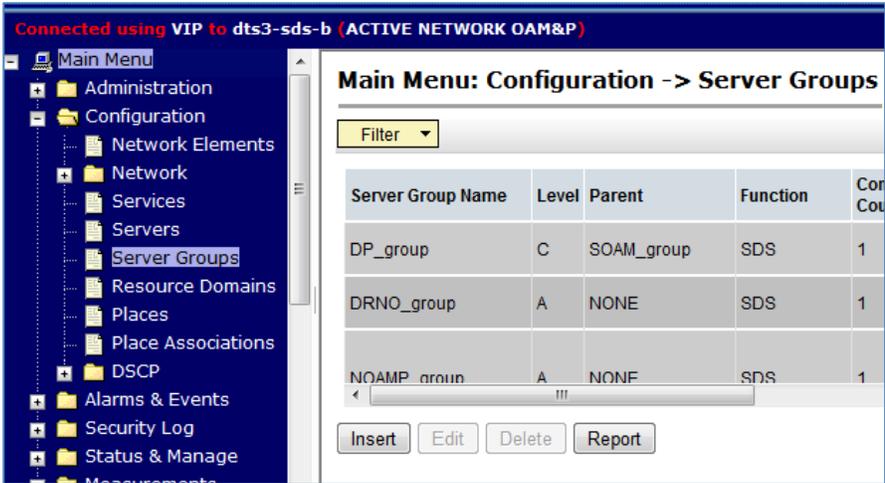
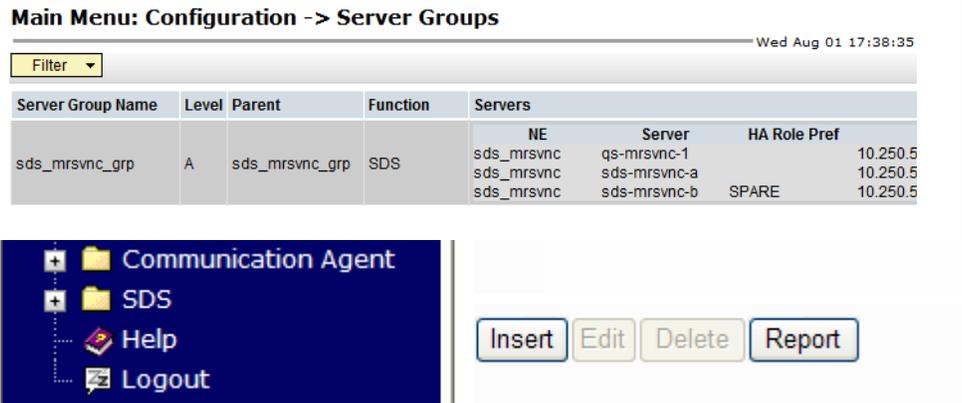
### 5.5 OAM Pairing for DR SDS NOAM site

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

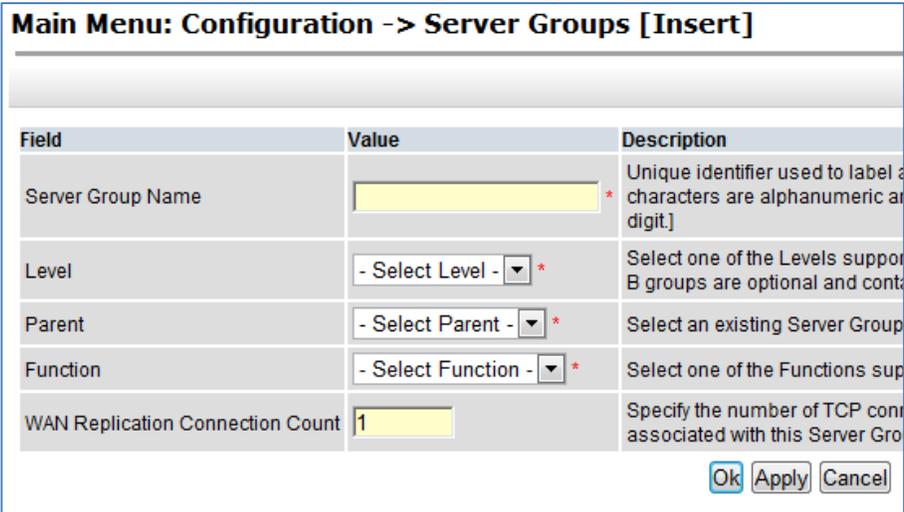
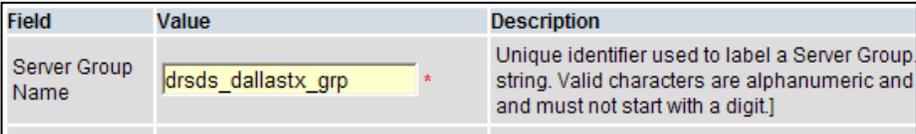
**Procedure 6:** Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

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

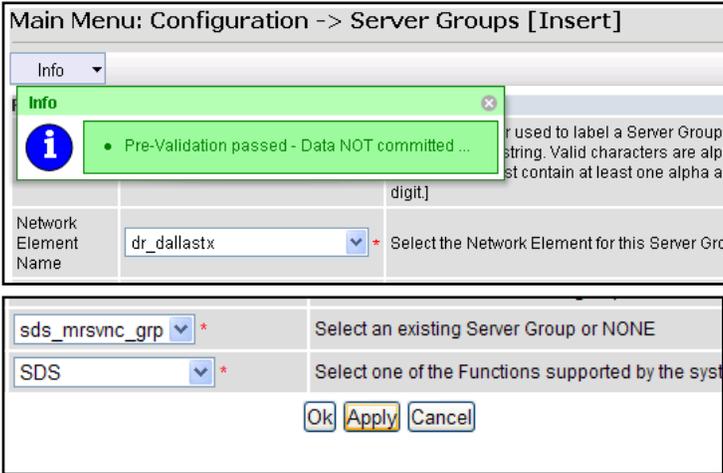
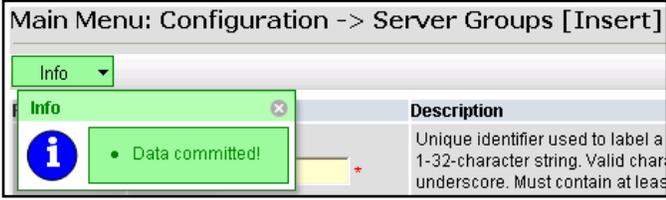
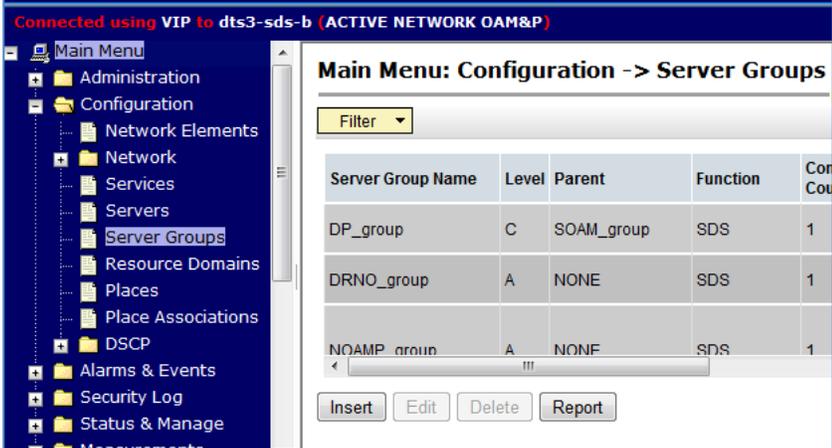
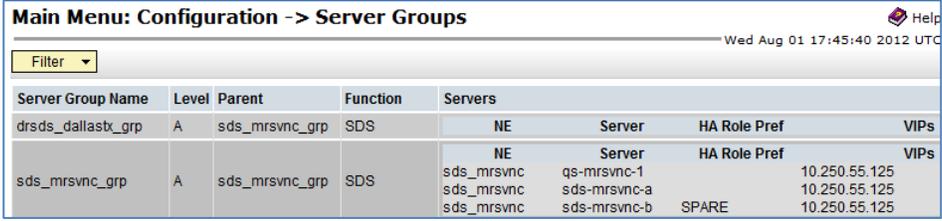
**Procedure 6:** Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
<p>3.</p> <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>4.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b>                  → <b>Configuration</b>                  → <b>Server Groups</b></p> <p>...as shown on the right.</p>	
<p>5.</p> <p><input type="checkbox"/></p>	<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>	

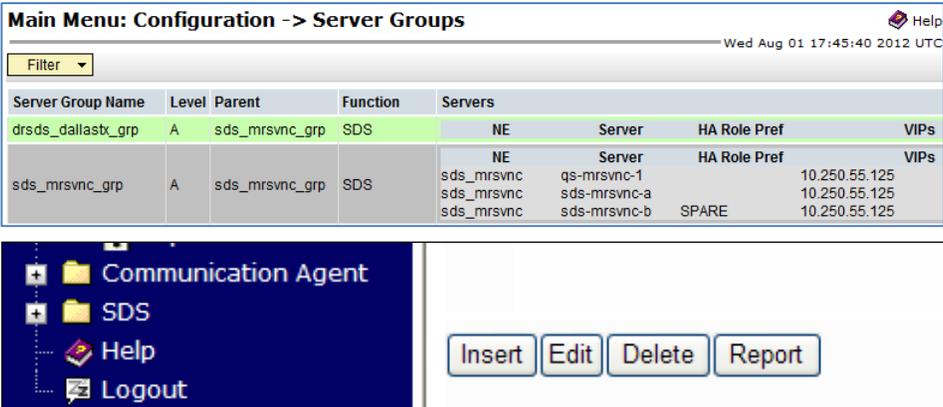
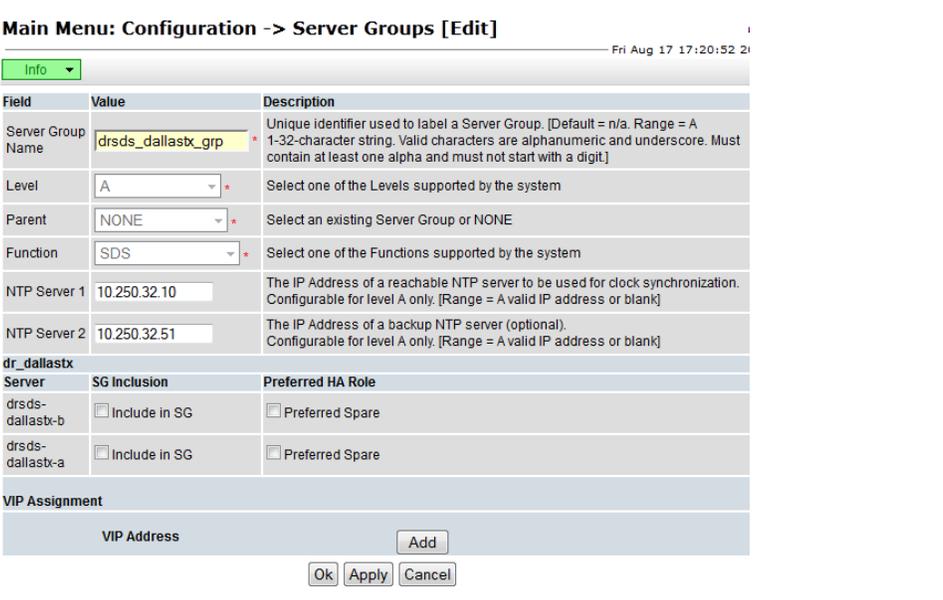
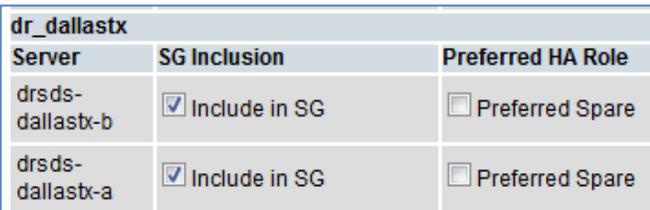
**Procedure 6:** Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
<p>6.</p> <input type="checkbox"/>	<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>	
<p>7.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b></p> <p>Input the <b>Server Group Name</b>.</p>	
<p>8.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b></p> <p>Select “<b>A</b>” on the “<b>Level</b>” pull-down menu.</p>	
<p>9.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b></p> <p>Select Parent “<b>NONE</b>” on the pull-down menu.</p>	
<p>10.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b></p> <p>Select “<b>SDS</b>” on the “<b>Function</b>” pull-down menu.</p>	

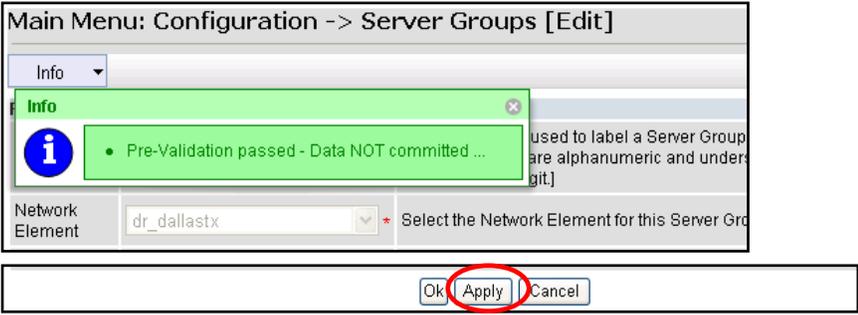
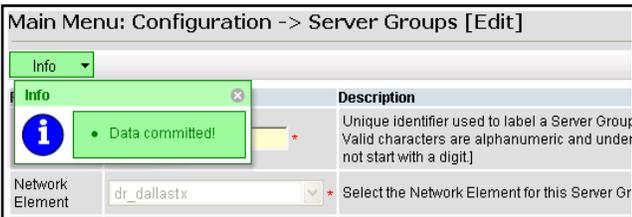
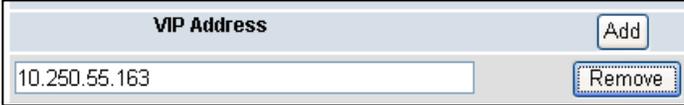
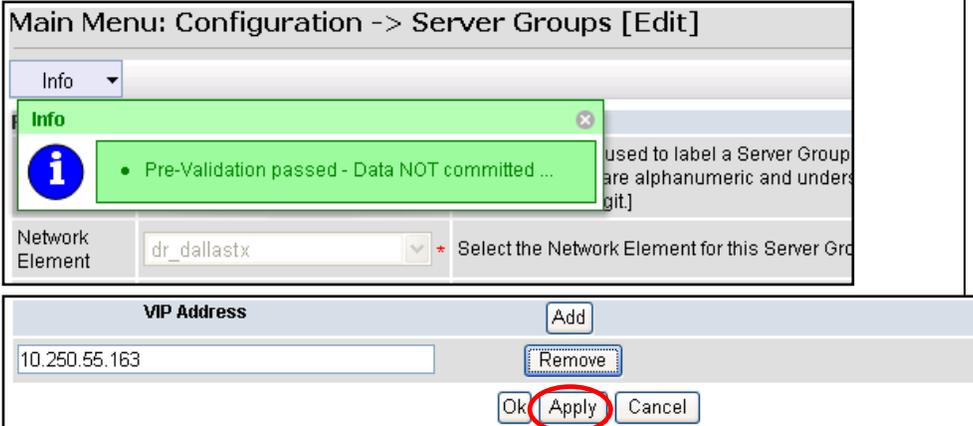
Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result																														
<p>11.</p> <p><input type="checkbox"/></p>	<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>Main Menu: Configuration -&gt; Server Groups [Insert]</p> <p>Info</p> <p>Info</p> <ul style="list-style-type: none"> <li>Pre-Validation passed - Data NOT committed ...</li> </ul> <p>Network Element Name: dr_dallastx * Select the Network Element for this Server Group</p> <p>sds_mrsvnc_grp * Select an existing Server Group or NONE</p> <p>SDS * Select one of the Functions supported by the system</p> <p>Ok Apply Cancel</p>																														
<p>12.</p> <p><input type="checkbox"/></p>	<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>Main Menu: Configuration -&gt; Server Groups [Insert]</p> <p>Info</p> <p>Info</p> <ul style="list-style-type: none"> <li>Data committed!</li> </ul> <table border="1"> <thead> <tr> <th>Name</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td></td> <td>Unique identifier used to label a 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha character.</td> </tr> </tbody> </table>	Name	Description		Unique identifier used to label a 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha character.																										
Name	Description																															
	Unique identifier used to label a 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha character.																															
<p>13.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b>  → Configuration  → <b>Server Groups</b></p> <p>...as shown on the right.</p>	 <p>Connected using VIP to dts3-sds-b (ACTIVE NETWORK OAM&amp;P)</p> <p>Main Menu</p> <ul style="list-style-type: none"> <li>Administration</li> <li>Configuration</li> <li>Network Elements</li> <li>Network</li> <li>Services</li> <li>Servers</li> <li>Server Groups</li> <li>Resource Domains</li> <li>Places</li> <li>Place Associations</li> <li>DSCP</li> <li>Alarms &amp; Events</li> <li>Security Log</li> <li>Status &amp; Manage</li> <li>Measurements</li> </ul> <p>Main Menu: Configuration -&gt; Server Groups</p> <p>Filter</p> <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Con</th> </tr> </thead> <tbody> <tr> <td>DP_group</td> <td>C</td> <td>SOAM_group</td> <td>SDS</td> <td>1</td> </tr> <tr> <td>DRNO_group</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>1</td> </tr> <tr> <td>NOAMP_group</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>1</td> </tr> </tbody> </table> <p>Insert Edit Delete Report</p>	Server Group Name	Level	Parent	Function	Con	DP_group	C	SOAM_group	SDS	1	DRNO_group	A	NONE	SDS	1	NOAMP_group	A	NONE	SDS	1										
Server Group Name	Level	Parent	Function	Con																												
DP_group	C	SOAM_group	SDS	1																												
DRNO_group	A	NONE	SDS	1																												
NOAMP_group	A	NONE	SDS	1																												
<p>14.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>The <b>Server Group</b> entry should be shown on the <b>“Server Groups”</b> configuration screen as shown on the right.</p>	 <p>Main Menu: Configuration -&gt; Server Groups</p> <p>Filter</p> <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Servers</th> </tr> </thead> <tbody> <tr> <td>drdsds_dallastx_grp</td> <td>A</td> <td>sds_mrsvnc_grp</td> <td>SDS</td> <td>NE Server HA Role Pref VIPs</td> </tr> <tr> <td>sds_mrsvnc_grp</td> <td>A</td> <td>sds_mrsvnc_grp</td> <td>SDS</td> <td>NE Server HA Role Pref VIPs</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>sds_mrsvnc qs-mrsvnc-1 10.250.55.125</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>sds_mrsvnc sds-mrsvnc-a 10.250.55.125</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>sds_mrsvnc sds-mrsvnc-b SPARE 10.250.55.125</td> </tr> </tbody> </table>	Server Group Name	Level	Parent	Function	Servers	drdsds_dallastx_grp	A	sds_mrsvnc_grp	SDS	NE Server HA Role Pref VIPs	sds_mrsvnc_grp	A	sds_mrsvnc_grp	SDS	NE Server HA Role Pref VIPs					sds_mrsvnc qs-mrsvnc-1 10.250.55.125					sds_mrsvnc sds-mrsvnc-a 10.250.55.125					sds_mrsvnc sds-mrsvnc-b SPARE 10.250.55.125
Server Group Name	Level	Parent	Function	Servers																												
drdsds_dallastx_grp	A	sds_mrsvnc_grp	SDS	NE Server HA Role Pref VIPs																												
sds_mrsvnc_grp	A	sds_mrsvnc_grp	SDS	NE Server HA Role Pref VIPs																												
				sds_mrsvnc qs-mrsvnc-1 10.250.55.125																												
				sds_mrsvnc sds-mrsvnc-a 10.250.55.125																												
				sds_mrsvnc sds-mrsvnc-b SPARE 10.250.55.125																												

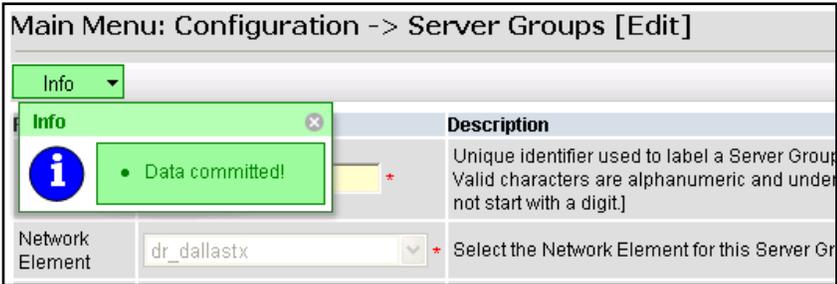
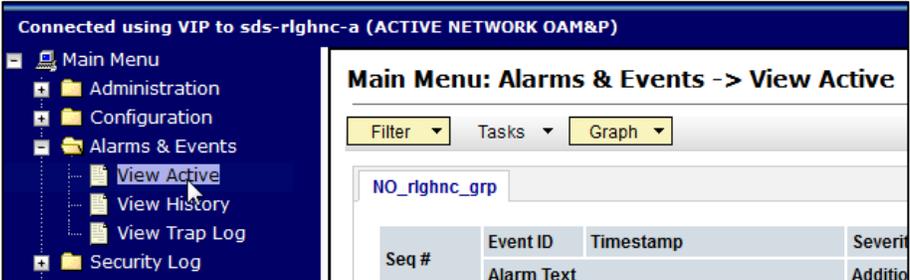
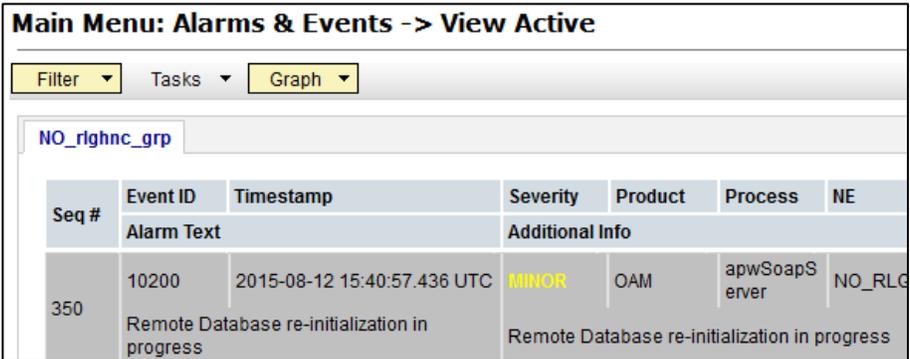
**Procedure 6:** Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result																																										
<p>15.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>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>.</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>Filter</p> <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Servers</th> <th>HA Role Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>drsds_dallastx_grp</td> <td>A</td> <td>sds_mrsvnc_grp</td> <td>SDS</td> <td>NE</td> <td>Server</td> <td></td> </tr> <tr> <td>sds_mrsvnc_grp</td> <td>A</td> <td>sds_mrsvnc_grp</td> <td>SDS</td> <td>sds_mrsvnc</td> <td>qs-mrsvnc-1</td> <td>10.250.55.125</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>sds_mrsvnc</td> <td>sds-mrsvnc-a</td> <td>10.250.55.125</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>sds_mrsvnc</td> <td>sds-mrsvnc-b</td> <td>10.250.55.125</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>SPARE</td> <td></td> </tr> </tbody> </table> <p>Communication Agent SDS Help Logout</p> <p>Insert Edit Delete Report</p>	Server Group Name	Level	Parent	Function	Servers	HA Role Pref	VIPs	drsds_dallastx_grp	A	sds_mrsvnc_grp	SDS	NE	Server		sds_mrsvnc_grp	A	sds_mrsvnc_grp	SDS	sds_mrsvnc	qs-mrsvnc-1	10.250.55.125					sds_mrsvnc	sds-mrsvnc-a	10.250.55.125					sds_mrsvnc	sds-mrsvnc-b	10.250.55.125						SPARE	
Server Group Name	Level	Parent	Function	Servers	HA Role Pref	VIPs																																						
drsds_dallastx_grp	A	sds_mrsvnc_grp	SDS	NE	Server																																							
sds_mrsvnc_grp	A	sds_mrsvnc_grp	SDS	sds_mrsvnc	qs-mrsvnc-1	10.250.55.125																																						
				sds_mrsvnc	sds-mrsvnc-a	10.250.55.125																																						
				sds_mrsvnc	sds-mrsvnc-b	10.250.55.125																																						
					SPARE																																							
<p>16.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></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>Info</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>drsds_dallastx_grp</td> <td>Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.]</td> </tr> <tr> <td>Level</td> <td>A</td> <td>Select one of the Levels supported by the system</td> </tr> <tr> <td>Parent</td> <td>NONE</td> <td>Select an existing Server Group or NONE</td> </tr> <tr> <td>Function</td> <td>SDS</td> <td>Select one of the Functions supported by the system</td> </tr> <tr> <td>NTP Server 1</td> <td>10.250.32.10</td> <td>The IP Address of a reachable NTP server to be used for clock synchronization. Configurable for level A only. [Range = A valid IP address or blank]</td> </tr> <tr> <td>NTP Server 2</td> <td>10.250.32.51</td> <td>The IP Address of a backup NTP server (optional). Configurable for level A only. [Range = A valid IP address or blank]</td> </tr> </tbody> </table> <p><b>dr_dallastx</b></p> <table border="1"> <thead> <tr> <th>Server</th> <th>SG Inclusion</th> <th>Preferred HA Role</th> </tr> </thead> <tbody> <tr> <td>drds-dallastx-b</td> <td><input type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Preferred Spare</td> </tr> <tr> <td>drds-dallastx-a</td> <td><input type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Preferred Spare</td> </tr> </tbody> </table> <p>VIP Assignment</p> <p>VIP Address <input type="text"/> Add</p> <p>Ok Apply Cancel</p>	Field	Value	Description	Server Group Name	drsds_dallastx_grp	Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.]	Level	A	Select one of the Levels supported by the system	Parent	NONE	Select an existing Server Group or NONE	Function	SDS	Select one of the Functions supported by the system	NTP Server 1	10.250.32.10	The IP Address of a reachable NTP server to be used for clock synchronization. Configurable for level A only. [Range = A valid IP address or blank]	NTP Server 2	10.250.32.51	The IP Address of a backup NTP server (optional). Configurable for level A only. [Range = A valid IP address or blank]	Server	SG Inclusion	Preferred HA Role	drds-dallastx-b	<input type="checkbox"/> Include in SG	<input type="checkbox"/> Preferred Spare	drds-dallastx-a	<input type="checkbox"/> Include in SG	<input type="checkbox"/> Preferred Spare												
Field	Value	Description																																										
Server Group Name	drsds_dallastx_grp	Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.]																																										
Level	A	Select one of the Levels supported by the system																																										
Parent	NONE	Select an existing Server Group or NONE																																										
Function	SDS	Select one of the Functions supported by the system																																										
NTP Server 1	10.250.32.10	The IP Address of a reachable NTP server to be used for clock synchronization. Configurable for level A only. [Range = A valid IP address or blank]																																										
NTP Server 2	10.250.32.51	The IP Address of a backup NTP server (optional). Configurable for level A only. [Range = A valid IP address or blank]																																										
Server	SG Inclusion	Preferred HA Role																																										
drds-dallastx-b	<input type="checkbox"/> Include in SG	<input type="checkbox"/> Preferred Spare																																										
drds-dallastx-a	<input type="checkbox"/> Include in SG	<input type="checkbox"/> Preferred Spare																																										
<p>17.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>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>drds-dallastx-b</td> <td><input checked="" type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Preferred Spare</td> </tr> <tr> <td>drds-dallastx-a</td> <td><input checked="" type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Preferred Spare</td> </tr> </tbody> </table>	Server	SG Inclusion	Preferred HA Role	drds-dallastx-b	<input checked="" type="checkbox"/> Include in SG	<input type="checkbox"/> Preferred Spare	drds-dallastx-a	<input checked="" type="checkbox"/> Include in SG	<input type="checkbox"/> Preferred Spare																																	
Server	SG Inclusion	Preferred HA Role																																										
drds-dallastx-b	<input checked="" type="checkbox"/> Include in SG	<input type="checkbox"/> Preferred Spare																																										
drds-dallastx-a	<input checked="" type="checkbox"/> Include in SG	<input type="checkbox"/> Preferred Spare																																										

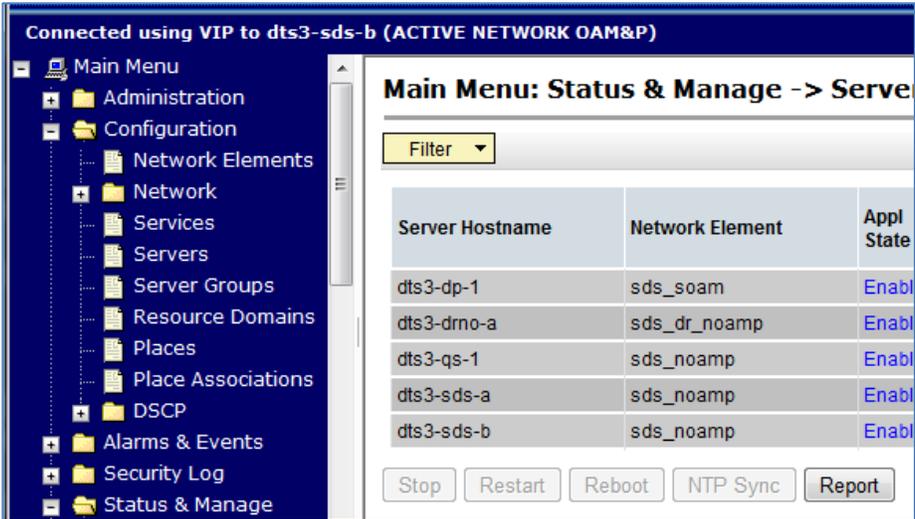
Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
<p>18.</p> <p><input type="checkbox"/></p>	<p><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>19.</p> <p><input type="checkbox"/></p>	<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>20.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Click the <b>“Add”</b> dialogue button for the <b>VIP Address</b>.</p>	
<p>21.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Input the <b>VIP Address</b></p>	
<p>22.</p> <p><input type="checkbox"/></p>	<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>	

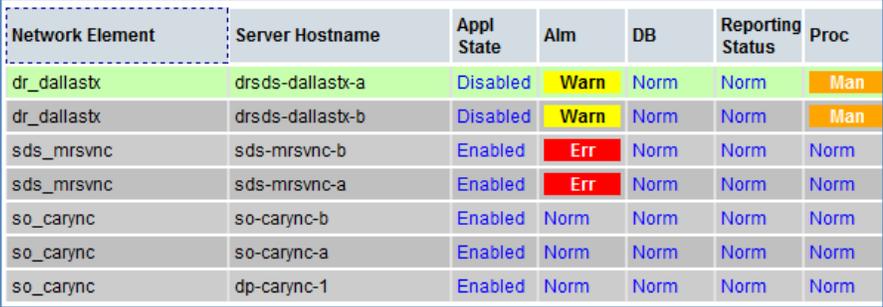
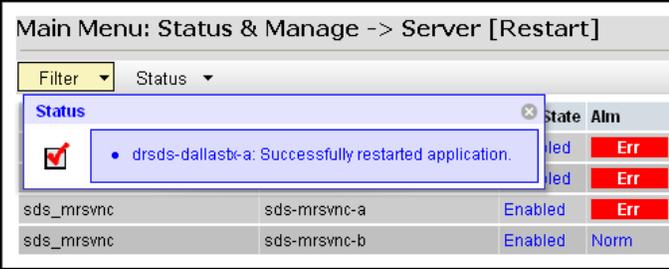
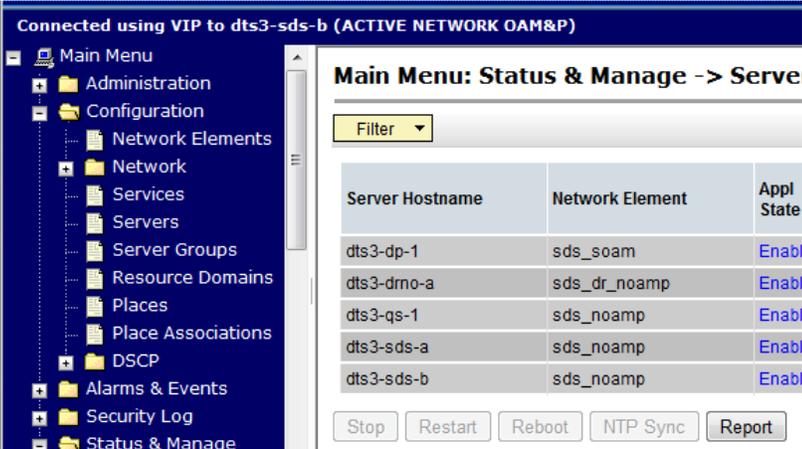
**Procedure 6:** Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
<p>23.</p> <p><input type="checkbox"/></p>	<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>24.</p>	<p><b>Primary SDS VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b>  → Alarms &amp; Events  → View Active</p> <p>...as shown on the right.</p>	
<p>25.</p>	<p><b>Primary SDS VIP:</b></p> <p>Verify that <b>Event ID 10200</b> (<i>Remote Database re-initialization in progress</i>) alarms are present with the <b>DR SDS NOAM Server hostnames</b> in the <b>“Instance”</b> field..</p>	
<div style="display: flex; align-items: center;">  <div> <p><b>MONITOR THE EVENT ID 10200 (<i>Remote Database re-initialization in progress</i>) ALARMS.</b></p> <p><b>DO NOT PROCEED TO THE NEXT STEP UNTIL THE ALARM CLEAR IS RECEIVED FOR BOTH DR SDS NOAM SERVERS.</b></p> </div> </div>		

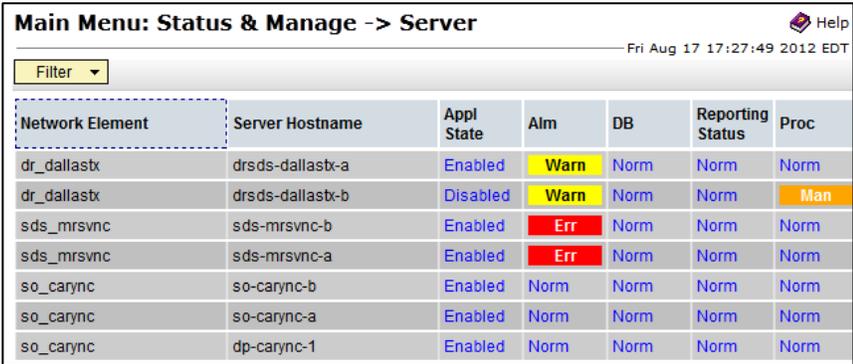
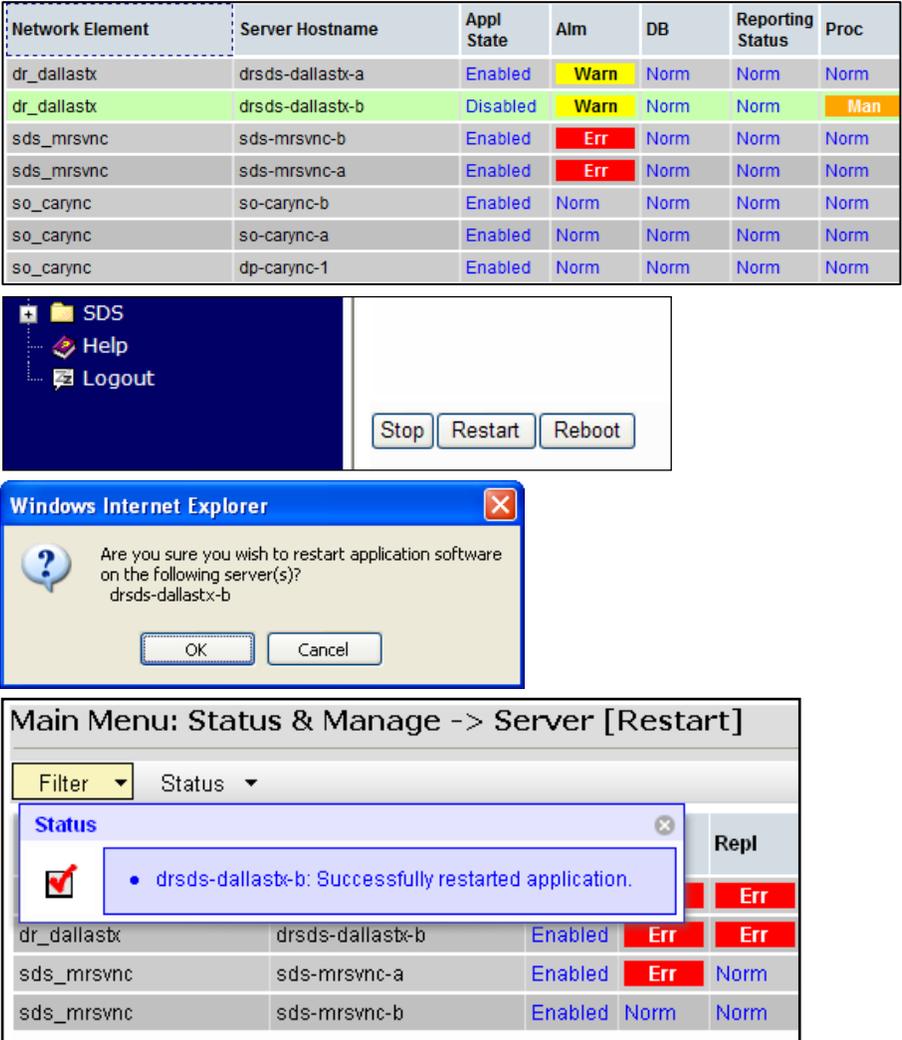
**Procedure 6:** Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result																																																								
<p>26.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b>                      → Status &amp; Manage                      → Server</p> <p>...as shown on the right.</p>	 <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> </tr> </thead> <tbody> <tr> <td>dts3-dp-1</td> <td>sds_soam</td> <td>Enabl</td> </tr> <tr> <td>dts3-drno-a</td> <td>sds_dr_noamp</td> <td>Enabl</td> </tr> <tr> <td>dts3-qs-1</td> <td>sds_noamp</td> <td>Enabl</td> </tr> <tr> <td>dts3-sds-a</td> <td>sds_noamp</td> <td>Enabl</td> </tr> <tr> <td>dts3-sds-b</td> <td>sds_noamp</td> <td>Enabl</td> </tr> </tbody> </table>	Server Hostname	Network Element	Appl State	dts3-dp-1	sds_soam	Enabl	dts3-drno-a	sds_dr_noamp	Enabl	dts3-qs-1	sds_noamp	Enabl	dts3-sds-a	sds_noamp	Enabl	dts3-sds-b	sds_noamp	Enabl																																						
Server Hostname	Network Element	Appl State																																																								
dts3-dp-1	sds_soam	Enabl																																																								
dts3-drno-a	sds_dr_noamp	Enabl																																																								
dts3-qs-1	sds_noamp	Enabl																																																								
dts3-sds-a	sds_noamp	Enabl																																																								
dts3-sds-b	sds_noamp	Enabl																																																								
<p>27.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>1) The “A” and “B” DR SDS servers should now appear in the right panel.</p> <p>2) Verify that the “DB” status shows “Norm” and the “Proc” status shows “Man” for both servers before proceeding to the next Step.</p>	<table border="1"> <thead> <tr> <th>Network Element</th> <th>Server Hostname</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>dr_dallastx</td> <td>drdsd-dallastx-b</td> <td>Disabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>dr_dallastx</td> <td>drdsd-dallastx-a</td> <td>Disabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-b</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-a</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>so_carync</td> <td>so-carync-a</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>so_carync</td> <td>so-carync-b</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>so_carync</td> <td>dp-carync-1</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table>	Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc	dr_dallastx	drdsd-dallastx-b	Disabled	Warn	Norm	Norm	Man	dr_dallastx	drdsd-dallastx-a	Disabled	Warn	Norm	Norm	Man	sds_mrsvnc	sds-mrsvnc-b	Enabled	Err	Norm	Norm	Norm	sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm	so_carync	so-carync-a	Enabled	Norm	Norm	Norm	Norm	so_carync	so-carync-b	Enabled	Norm	Norm	Norm	Norm	so_carync	dp-carync-1	Enabled	Norm	Norm	Norm	Norm
Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc																																																				
dr_dallastx	drdsd-dallastx-b	Disabled	Warn	Norm	Norm	Man																																																				
dr_dallastx	drdsd-dallastx-a	Disabled	Warn	Norm	Norm	Man																																																				
sds_mrsvnc	sds-mrsvnc-b	Enabled	Err	Norm	Norm	Norm																																																				
sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm																																																				
so_carync	so-carync-a	Enabled	Norm	Norm	Norm	Norm																																																				
so_carync	so-carync-b	Enabled	Norm	Norm	Norm	Norm																																																				
so_carync	dp-carync-1	Enabled	Norm	Norm	Norm	Norm																																																				

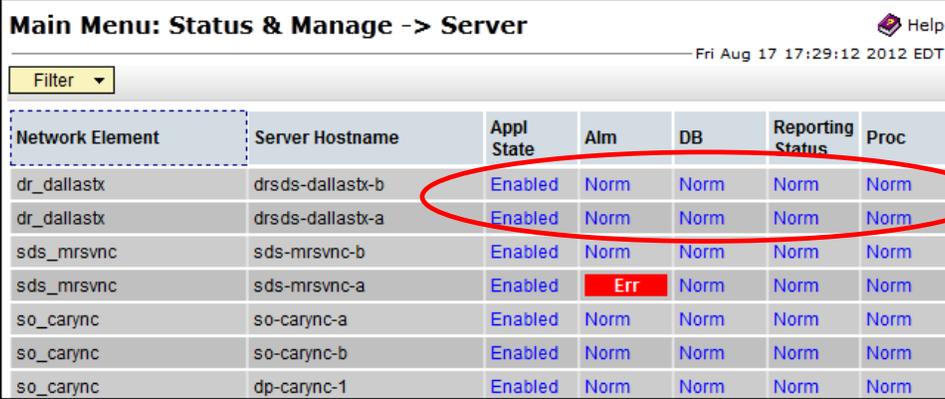
**Procedure 6:** Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result																																																								
<p>28.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>1) Using the mouse, select <b>DR OAM 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 OAM Server A</b> stating: <b>“Successfully restarted application”</b>.</p>	 <table border="1"> <thead> <tr> <th>Network Element</th> <th>Server Hostname</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>dr_dallastx</td> <td>drsd-s-dallastx-a</td> <td>Disabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>dr_dallastx</td> <td>drsd-s-dallastx-b</td> <td>Disabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-b</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-a</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>so_carync</td> <td>so-carync-b</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>so_carync</td> <td>so-carync-a</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>so_carync</td> <td>dp-carync-1</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table>   	Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc	dr_dallastx	drsd-s-dallastx-a	Disabled	Warn	Norm	Norm	Man	dr_dallastx	drsd-s-dallastx-b	Disabled	Warn	Norm	Norm	Man	sds_mrsvnc	sds-mrsvnc-b	Enabled	Err	Norm	Norm	Norm	sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm	so_carync	so-carync-b	Enabled	Norm	Norm	Norm	Norm	so_carync	so-carync-a	Enabled	Norm	Norm	Norm	Norm	so_carync	dp-carync-1	Enabled	Norm	Norm	Norm	Norm
Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc																																																				
dr_dallastx	drsd-s-dallastx-a	Disabled	Warn	Norm	Norm	Man																																																				
dr_dallastx	drsd-s-dallastx-b	Disabled	Warn	Norm	Norm	Man																																																				
sds_mrsvnc	sds-mrsvnc-b	Enabled	Err	Norm	Norm	Norm																																																				
sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm																																																				
so_carync	so-carync-b	Enabled	Norm	Norm	Norm	Norm																																																				
so_carync	so-carync-a	Enabled	Norm	Norm	Norm	Norm																																																				
so_carync	dp-carync-1	Enabled	Norm	Norm	Norm	Norm																																																				
<p>29.</p> <p><input type="checkbox"/></p>	<p><b>Primary 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>	 <p>Connected using VIP to dts3-sds-b (ACTIVE NETWORK OAM&amp;P)</p> <p>Main Menu: Status &amp; Manage -&gt; Server</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> </tr> </thead> <tbody> <tr> <td>dts3-dp-1</td> <td>sds_soam</td> <td>Enabl</td> </tr> <tr> <td>dts3-drno-a</td> <td>sds_dr_noamp</td> <td>Enabl</td> </tr> <tr> <td>dts3-qs-1</td> <td>sds_noamp</td> <td>Enabl</td> </tr> <tr> <td>dts3-sds-a</td> <td>sds_noamp</td> <td>Enabl</td> </tr> <tr> <td>dts3-sds-b</td> <td>sds_noamp</td> <td>Enabl</td> </tr> </tbody> </table>	Server Hostname	Network Element	Appl State	dts3-dp-1	sds_soam	Enabl	dts3-drno-a	sds_dr_noamp	Enabl	dts3-qs-1	sds_noamp	Enabl	dts3-sds-a	sds_noamp	Enabl	dts3-sds-b	sds_noamp	Enabl																																						
Server Hostname	Network Element	Appl State																																																								
dts3-dp-1	sds_soam	Enabl																																																								
dts3-drno-a	sds_dr_noamp	Enabl																																																								
dts3-qs-1	sds_noamp	Enabl																																																								
dts3-sds-a	sds_noamp	Enabl																																																								
dts3-sds-b	sds_noamp	Enabl																																																								

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

Step	Procedure	Result																																																																													
<p>30.</p> <p><input type="checkbox"/></p>	<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>OAM Server A</b> before proceeding to the next Step.</p>	 <p><b>Main Menu: Status &amp; Manage -&gt; Server</b></p> <table border="1"> <thead> <tr> <th>Network Element</th> <th>Server Hostname</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>dr_dallastx</td> <td>drdsd-dallastx-a</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>dr_dallastx</td> <td>drdsd-dallastx-b</td> <td>Disabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-b</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-a</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>so_carync</td> <td>so-carync-b</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>so_carync</td> <td>so-carync-a</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>so_carync</td> <td>dp-carync-1</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table>	Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc	dr_dallastx	drdsd-dallastx-a	Enabled	Warn	Norm	Norm	Norm	dr_dallastx	drdsd-dallastx-b	Disabled	Warn	Norm	Norm	Man	sds_mrsvnc	sds-mrsvnc-b	Enabled	Err	Norm	Norm	Norm	sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm	so_carync	so-carync-b	Enabled	Norm	Norm	Norm	Norm	so_carync	so-carync-a	Enabled	Norm	Norm	Norm	Norm	so_carync	dp-carync-1	Enabled	Norm	Norm	Norm	Norm																					
Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc																																																																									
dr_dallastx	drdsd-dallastx-a	Enabled	Warn	Norm	Norm	Norm																																																																									
dr_dallastx	drdsd-dallastx-b	Disabled	Warn	Norm	Norm	Man																																																																									
sds_mrsvnc	sds-mrsvnc-b	Enabled	Err	Norm	Norm	Norm																																																																									
sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm																																																																									
so_carync	so-carync-b	Enabled	Norm	Norm	Norm	Norm																																																																									
so_carync	so-carync-a	Enabled	Norm	Norm	Norm	Norm																																																																									
so_carync	dp-carync-1	Enabled	Norm	Norm	Norm	Norm																																																																									
<p>31.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <ol style="list-style-type: none"> <li>Using the mouse, select <b>DR OAM Server B</b>. The line entry should now be highlighted in <b>GREEN</b>.</li> <li>Select the “<b>Restart</b>” dialogue button from the bottom left corner of the screen.</li> <li>Click the “<b>OK</b>” button on the confirmation dialogue box.</li> <li>The user should be presented with a confirmation message (in the banner area) for <b>DR OAM Server B</b> stating: “<b>Successfully restarted application</b>”.</li> </ol>	 <p><b>Network Element</b>   <b>Server Hostname</b>   <b>Appl State</b>   <b>Alm</b>   <b>DB</b>   <b>Reporting Status</b>   <b>Proc</b></p> <table border="1"> <tbody> <tr> <td>dr_dallastx</td> <td>drdsd-dallastx-a</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>dr_dallastx</td> <td>drdsd-dallastx-b</td> <td>Disabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-b</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-a</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>so_carync</td> <td>so-carync-b</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>so_carync</td> <td>so-carync-a</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>so_carync</td> <td>dp-carync-1</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table> <p>Buttons: Stop, Restart, Reboot</p> <p>Windows Internet Explorer dialog: Are you sure you wish to restart application software on the following server(s)? drdsd-dallastx-b</p> <p>Buttons: OK, Cancel</p> <p><b>Main Menu: Status &amp; Manage -&gt; Server [Restart]</b></p> <p>Filter: Status</p> <p>Status dialog: drdsd-dallastx-b: Successfully restarted application.</p> <table border="1"> <thead> <tr> <th>Network Element</th> <th>Server Hostname</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>dr_dallastx</td> <td>drdsd-dallastx-b</td> <td>Enabled</td> <td>Err</td> <td>Err</td> <td>Err</td> <td>Err</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-a</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-b</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table>	dr_dallastx	drdsd-dallastx-a	Enabled	Warn	Norm	Norm	Norm	dr_dallastx	drdsd-dallastx-b	Disabled	Warn	Norm	Norm	Man	sds_mrsvnc	sds-mrsvnc-b	Enabled	Err	Norm	Norm	Norm	sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm	so_carync	so-carync-b	Enabled	Norm	Norm	Norm	Norm	so_carync	so-carync-a	Enabled	Norm	Norm	Norm	Norm	so_carync	dp-carync-1	Enabled	Norm	Norm	Norm	Norm	Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc	dr_dallastx	drdsd-dallastx-b	Enabled	Err	Err	Err	Err	sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm	sds_mrsvnc	sds-mrsvnc-b	Enabled	Norm	Norm	Norm	Norm
dr_dallastx	drdsd-dallastx-a	Enabled	Warn	Norm	Norm	Norm																																																																									
dr_dallastx	drdsd-dallastx-b	Disabled	Warn	Norm	Norm	Man																																																																									
sds_mrsvnc	sds-mrsvnc-b	Enabled	Err	Norm	Norm	Norm																																																																									
sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm																																																																									
so_carync	so-carync-b	Enabled	Norm	Norm	Norm	Norm																																																																									
so_carync	so-carync-a	Enabled	Norm	Norm	Norm	Norm																																																																									
so_carync	dp-carync-1	Enabled	Norm	Norm	Norm	Norm																																																																									
Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc																																																																									
dr_dallastx	drdsd-dallastx-b	Enabled	Err	Err	Err	Err																																																																									
sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm																																																																									
sds_mrsvnc	sds-mrsvnc-b	Enabled	Norm	Norm	Norm	Norm																																																																									

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

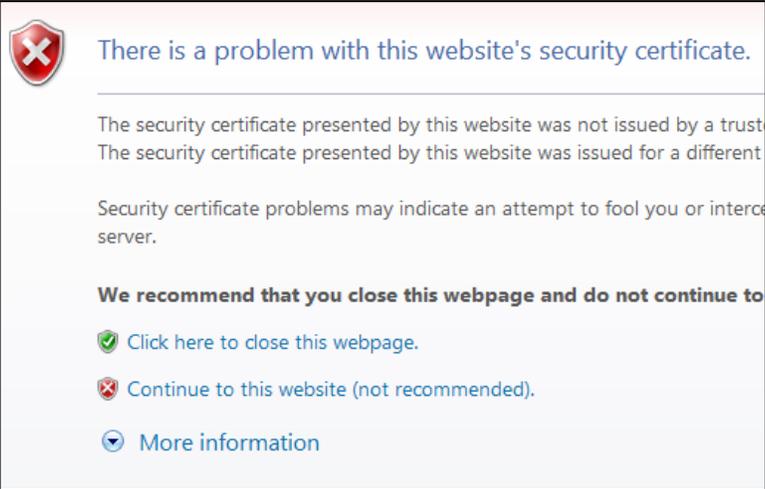
Step	Procedure	Result																																																								
<p>32.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Verify that the “<b>Appl State</b>” now shows “<b>Enabled</b>” and that the “<b>Aim, DB, Reporting Status &amp; Proc</b>” status columns all show “<b>Norm</b>” for <b>OAM Server A</b> and <b>OAM Server B</b> before proceeding to the next Step.</p>	 <p><b>Main Menu: Status &amp; Manage -&gt; Server</b> <span style="float: right;">Help</span></p> <p style="text-align: right;">Fri Aug 17 17:29:12 2012 EDT</p> <p>Filter ▾</p> <table border="1"> <thead> <tr> <th>Network Element</th> <th>Server Hostname</th> <th>Appl State</th> <th>Aim</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>dr_dallastx</td> <td>drsds-dallastx-b</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>dr_dallastx</td> <td>drsds-dallastx-a</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-b</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-a</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>so_carync</td> <td>so-carync-a</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>so_carync</td> <td>so-carync-b</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>so_carync</td> <td>dp-carync-1</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table>	Network Element	Server Hostname	Appl State	Aim	DB	Reporting Status	Proc	dr_dallastx	drsds-dallastx-b	Enabled	Norm	Norm	Norm	Norm	dr_dallastx	drsds-dallastx-a	Enabled	Norm	Norm	Norm	Norm	sds_mrsvnc	sds-mrsvnc-b	Enabled	Norm	Norm	Norm	Norm	sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm	so_carync	so-carync-a	Enabled	Norm	Norm	Norm	Norm	so_carync	so-carync-b	Enabled	Norm	Norm	Norm	Norm	so_carync	dp-carync-1	Enabled	Norm	Norm	Norm	Norm
Network Element	Server Hostname	Appl State	Aim	DB	Reporting Status	Proc																																																				
dr_dallastx	drsds-dallastx-b	Enabled	Norm	Norm	Norm	Norm																																																				
dr_dallastx	drsds-dallastx-a	Enabled	Norm	Norm	Norm	Norm																																																				
sds_mrsvnc	sds-mrsvnc-b	Enabled	Norm	Norm	Norm	Norm																																																				
sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm																																																				
so_carync	so-carync-a	Enabled	Norm	Norm	Norm	Norm																																																				
so_carync	so-carync-b	Enabled	Norm	Norm	Norm	Norm																																																				
so_carync	dp-carync-1	Enabled	Norm	Norm	Norm	Norm																																																				
<p>33.</p> <p><input type="checkbox"/></p>	<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>																																																								
<p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>																																																										

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

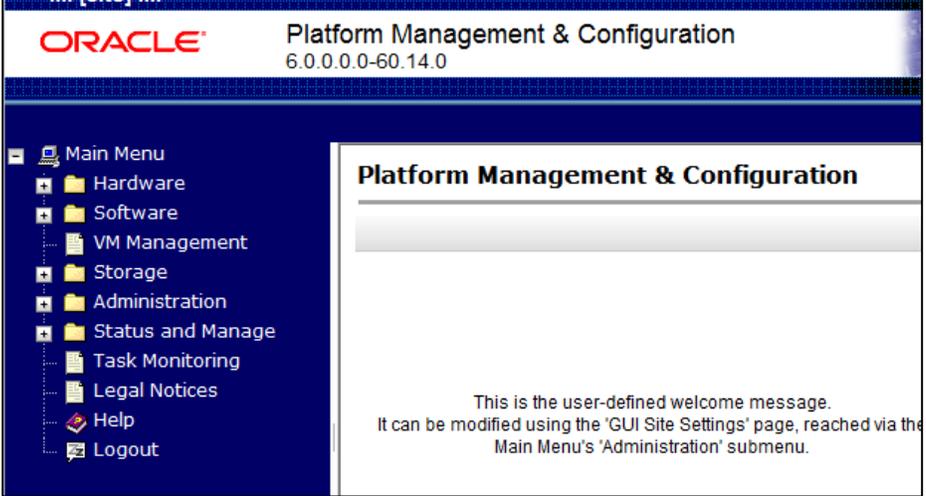
This procedure must be done once for each DSR signaling site, which is also an SDS SOAM site.

This procedure assumes that the PMAC server has already been installed, as described in **Error! Reference source not found.**

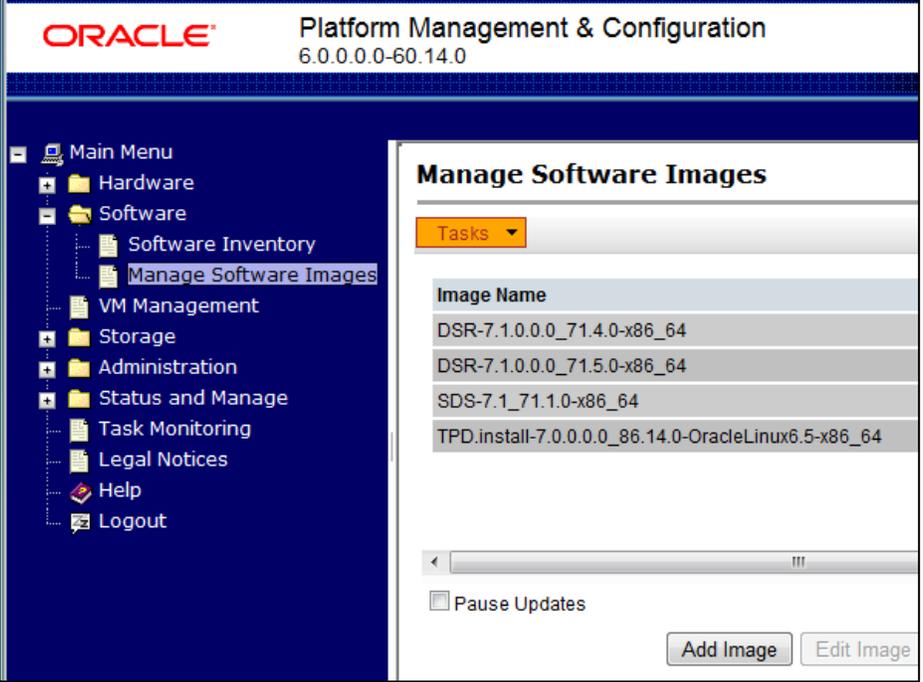
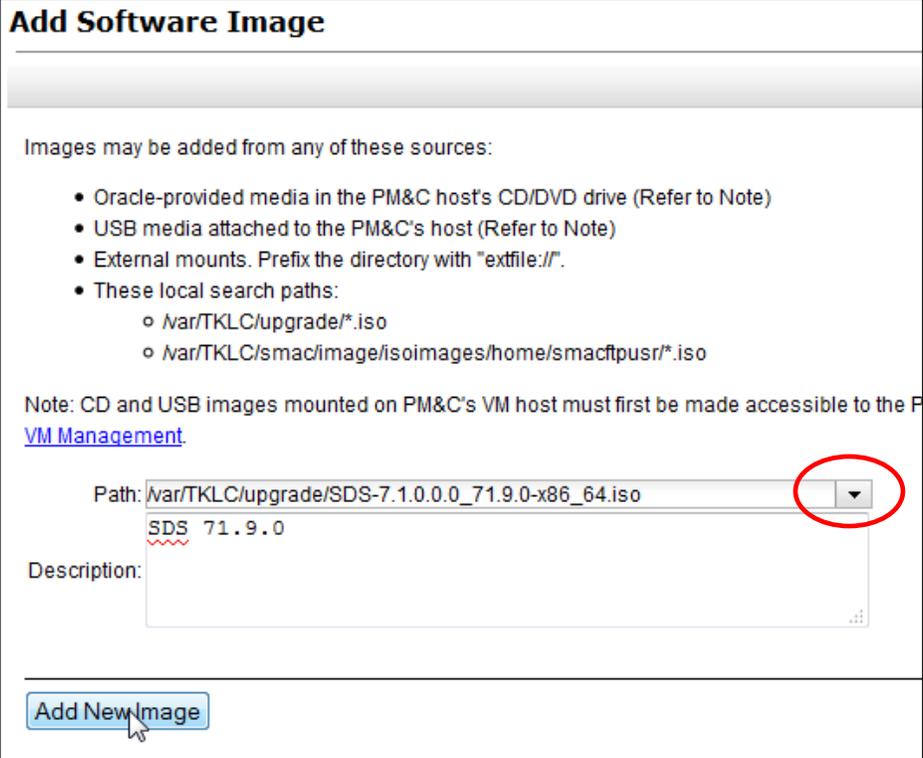
### Procedure 7: Add SDS software images to PMAC servers for DSR signaling sites

Step	Procedure	Result
1.	<b>Active SDS VIP (CLI):</b> 1) Access the command prompt. 2) Log into the HP server as the "admusr" user.	login: <b>admusr</b> Using keyboard-interactive authentication. Password: <b>&lt;admusr_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 SDS ISO file is present.	\$ <b>ls</b> SDS-7.1.0.0.0_71.9.0-x86_64.iso \$
4.	<b>Active SDS VIP (CLI):</b> "scp" the SDS ISO file to the PMAC Server as shown to the right..	\$ <b>scp -p SDS-7.1.0.0.0_71.9.0-x86_64.iso admusr@&lt;PMAC_Mgmt_IP_address&gt;:/var/TKLC/upgrade/</b> Password: <b>&lt;admusr_password&gt;</b> SDS-7.1.0.0.0_71.9.0-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> <i>If presented with the "security certificate" warning screen shown to the right, choose the following option: "Continue to this website (not recommended)".</i>	

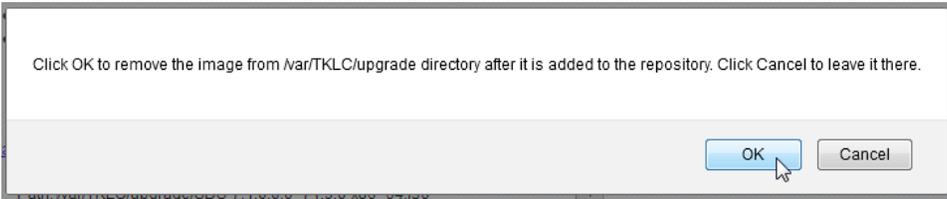
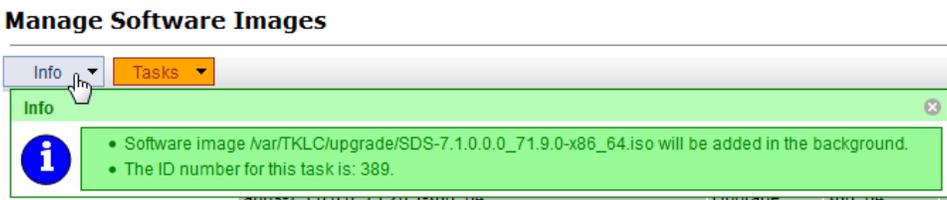
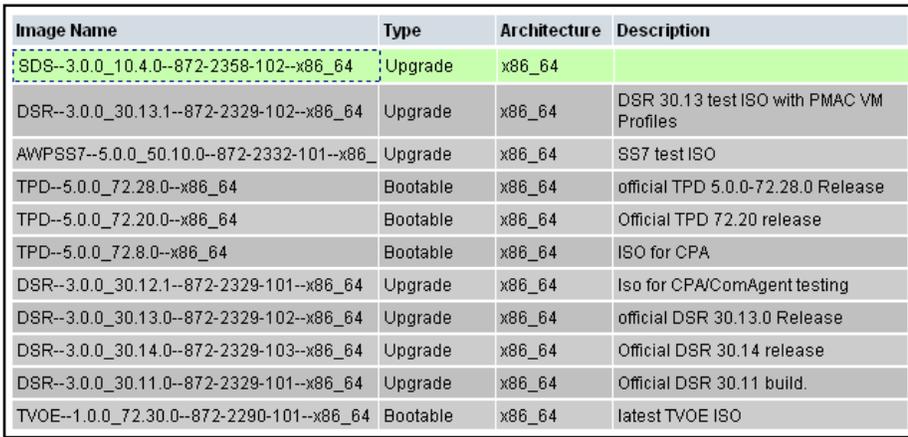
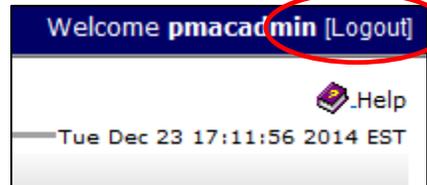
**Procedure 7:** Add SDS software images to PMAC servers for DSR signaling sites

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

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

Step	Procedure	Result
<p>8.</p> <p><input type="checkbox"/></p>	<p><b>PMAC Server GUI:</b></p> <p>1) Select...</p> <p><b>Main Menu</b>                      → Software                      → <i>Manage Software Images</i></p> <p>...as shown on the right.</p> <p>2) Select the “Add Image” button</p>	
<p>9.</p> <p><input type="checkbox"/></p>	<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) Use the <b>last 3 places</b> of the <b>SDS release number</b> to add a comment in the <b>Description</b> field.</p> <p>3) Click the “Add New Image” dialogue button.</p>	

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

Step	Procedure	Result																																																
10.	<p><b>PMAC Server GUI:</b></p> <p>Click the “OK” button on the confirmation dialogue box to remove the source image after it has been successfully added to the SW Inventory.</p>	 <p>Click OK to remove the image from /var/TKLC/upgrade directory after it is added to the repository. Click Cancel to leave it there.</p>																																																
11.	<p><b>PMAC Server GUI:</b></p> <p>An info message will be raised to show a new background task.</p>	<p><b>Manage Software Images</b></p>  <p>Info Tasks</p> <p>Info</p> <ul style="list-style-type: none"> <li>• Software image /var/TKLC/upgrade/SDS-7.1.0.0.0_71.9.0-x86_64.iso will be added in the background.</li> <li>• The ID number for this task is: 389.</li> </ul>																																																
12.	<p><b>PMAC Server GUI:</b></p> <p>Watch the extraction progress in the lower task list on the same page.</p>	 <table border="1"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> <th>Status</th> <th>Running Time</th> <th>Start Time</th> <th>Progress</th> </tr> </thead> <tbody> <tr> <td>773</td> <td>Add Image</td> <td></td> <td>Extracting/Verifying image source.</td> <td>0:00:00</td> <td>2011-12-05 16:32:50</td> <td>11%</td> </tr> <tr> <td>762</td> <td>Add Image</td> <td></td> <td>Done: 872-2329-103-3.0.0_30.14.0-DSR-x86_64</td> <td>0:00:05</td> <td>2011-12-05 09:38:36</td> <td>100%</td> </tr> <tr> <td>739</td> <td>Add Image</td> <td></td> <td>Done: 872-2329-101-3.0.0_30.12.1-DSR-x86_64</td> <td>0:00:06</td> <td>2011-11-30 16:51:57</td> <td>100%</td> </tr> <tr> <td>729</td> <td>Add Image</td> <td></td> <td>Done: 872-2329-102-3.0.0_30.13.0-DSR-x86_64</td> <td>0:00:06</td> <td>2011-11-25 07:54:00</td> <td>100%</td> </tr> </tbody> </table>	ID	Task	Target	Status	Running Time	Start Time	Progress	773	Add Image		Extracting/Verifying image source.	0:00:00	2011-12-05 16:32:50	11%	762	Add Image		Done: 872-2329-103-3.0.0_30.14.0-DSR-x86_64	0:00:05	2011-12-05 09:38:36	100%	739	Add Image		Done: 872-2329-101-3.0.0_30.12.1-DSR-x86_64	0:00:06	2011-11-30 16:51:57	100%	729	Add Image		Done: 872-2329-102-3.0.0_30.13.0-DSR-x86_64	0:00:06	2011-11-25 07:54:00	100%													
ID	Task	Target	Status	Running Time	Start Time	Progress																																												
773	Add Image		Extracting/Verifying image source.	0:00:00	2011-12-05 16:32:50	11%																																												
762	Add Image		Done: 872-2329-103-3.0.0_30.14.0-DSR-x86_64	0:00:05	2011-12-05 09:38:36	100%																																												
739	Add Image		Done: 872-2329-101-3.0.0_30.12.1-DSR-x86_64	0:00:06	2011-11-30 16:51:57	100%																																												
729	Add Image		Done: 872-2329-102-3.0.0_30.13.0-DSR-x86_64	0:00:06	2011-11-25 07:54:00	100%																																												
13.	<p><b>PMAC Server GUI:</b></p> <p>When the extraction task is complete, a new software image will be displayed.</p>	 <table border="1"> <thead> <tr> <th>Image Name</th> <th>Type</th> <th>Architecture</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>SDS--3.0.0_10.4.0--872-2358-102--x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td></td> </tr> <tr> <td>DSR--3.0.0_30.13.1--872-2329-102--x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td>DSR 30.13 test ISO with PMAC VM Profiles</td> </tr> <tr> <td>AWPSS7--5.0.0_50.10.0--872-2332-101--x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td>SS7 test ISO</td> </tr> <tr> <td>TPD--5.0.0_72.28.0--x86_64</td> <td>Bootable</td> <td>x86_64</td> <td>official TPD 5.0.0-72.28.0 Release</td> </tr> <tr> <td>TPD--5.0.0_72.20.0--x86_64</td> <td>Bootable</td> <td>x86_64</td> <td>Official TPD 72.20 release</td> </tr> <tr> <td>TPD--5.0.0_72.8.0--x86_64</td> <td>Bootable</td> <td>x86_64</td> <td>ISO for CPA</td> </tr> <tr> <td>DSR--3.0.0_30.12.1--872-2329-101--x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td>Iso for CPA/ComAgent testing</td> </tr> <tr> <td>DSR--3.0.0_30.13.0--872-2329-102--x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td>official DSR 30.13.0 Release</td> </tr> <tr> <td>DSR--3.0.0_30.14.0--872-2329-103--x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td>Official DSR 30.14 release</td> </tr> <tr> <td>DSR--3.0.0_30.11.0--872-2329-101--x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td>Official DSR 30.11 build.</td> </tr> <tr> <td>TVOE--1.0.0_72.30.0--872-2290-101--x86_64</td> <td>Bootable</td> <td>x86_64</td> <td>latest TVOE ISO</td> </tr> </tbody> </table>	Image Name	Type	Architecture	Description	SDS--3.0.0_10.4.0--872-2358-102--x86_64	Upgrade	x86_64		DSR--3.0.0_30.13.1--872-2329-102--x86_64	Upgrade	x86_64	DSR 30.13 test ISO with PMAC VM Profiles	AWPSS7--5.0.0_50.10.0--872-2332-101--x86_64	Upgrade	x86_64	SS7 test ISO	TPD--5.0.0_72.28.0--x86_64	Bootable	x86_64	official TPD 5.0.0-72.28.0 Release	TPD--5.0.0_72.20.0--x86_64	Bootable	x86_64	Official TPD 72.20 release	TPD--5.0.0_72.8.0--x86_64	Bootable	x86_64	ISO for CPA	DSR--3.0.0_30.12.1--872-2329-101--x86_64	Upgrade	x86_64	Iso for CPA/ComAgent testing	DSR--3.0.0_30.13.0--872-2329-102--x86_64	Upgrade	x86_64	official DSR 30.13.0 Release	DSR--3.0.0_30.14.0--872-2329-103--x86_64	Upgrade	x86_64	Official DSR 30.14 release	DSR--3.0.0_30.11.0--872-2329-101--x86_64	Upgrade	x86_64	Official DSR 30.11 build.	TVOE--1.0.0_72.30.0--872-2290-101--x86_64	Bootable	x86_64	latest TVOE ISO
Image Name	Type	Architecture	Description																																															
SDS--3.0.0_10.4.0--872-2358-102--x86_64	Upgrade	x86_64																																																
DSR--3.0.0_30.13.1--872-2329-102--x86_64	Upgrade	x86_64	DSR 30.13 test ISO with PMAC VM Profiles																																															
AWPSS7--5.0.0_50.10.0--872-2332-101--x86_64	Upgrade	x86_64	SS7 test ISO																																															
TPD--5.0.0_72.28.0--x86_64	Bootable	x86_64	official TPD 5.0.0-72.28.0 Release																																															
TPD--5.0.0_72.20.0--x86_64	Bootable	x86_64	Official TPD 72.20 release																																															
TPD--5.0.0_72.8.0--x86_64	Bootable	x86_64	ISO for CPA																																															
DSR--3.0.0_30.12.1--872-2329-101--x86_64	Upgrade	x86_64	Iso for CPA/ComAgent testing																																															
DSR--3.0.0_30.13.0--872-2329-102--x86_64	Upgrade	x86_64	official DSR 30.13.0 Release																																															
DSR--3.0.0_30.14.0--872-2329-103--x86_64	Upgrade	x86_64	Official DSR 30.14 release																																															
DSR--3.0.0_30.11.0--872-2329-101--x86_64	Upgrade	x86_64	Official DSR 30.11 build.																																															
TVOE--1.0.0_72.30.0--872-2290-101--x86_64	Bootable	x86_64	latest TVOE ISO																																															
14.	<p><b>PMAC Server GUI:</b></p> <p>Click the “Logout” link on the PMAC server GUI.</p>	 <p>Welcome pmacadmin [Logout]</p> <p>.Help</p> <p>Tue Dec 23 17:11:56 2014 EST</p>																																																
<p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>																																																		

## 5.7 OAM Installation for SOAM sites (All SOAM sites)

### Assumptions:

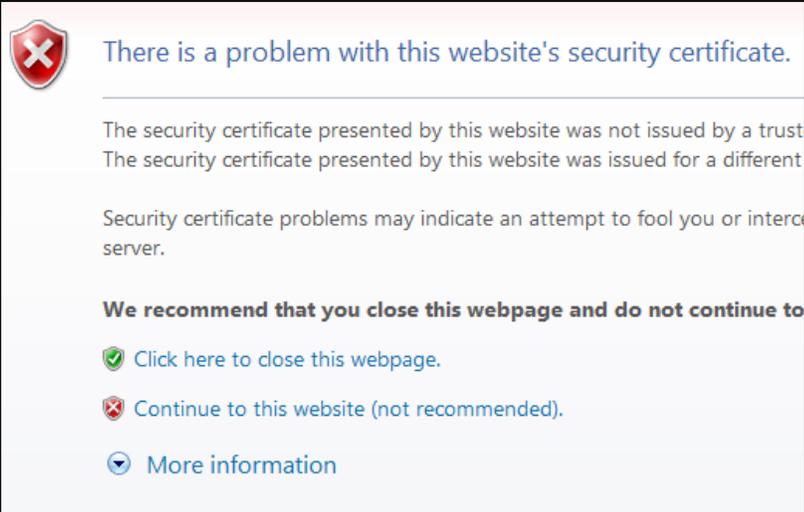
- This procedure assumes that the SOAM Network Element XML file for the SOAM site has previously been created, as described in **Appendix F**.
- This procedure assumes that the Network Element XML files are either on a USB flash drive or the laptop's hard drive. The steps are written as if the XML files 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.

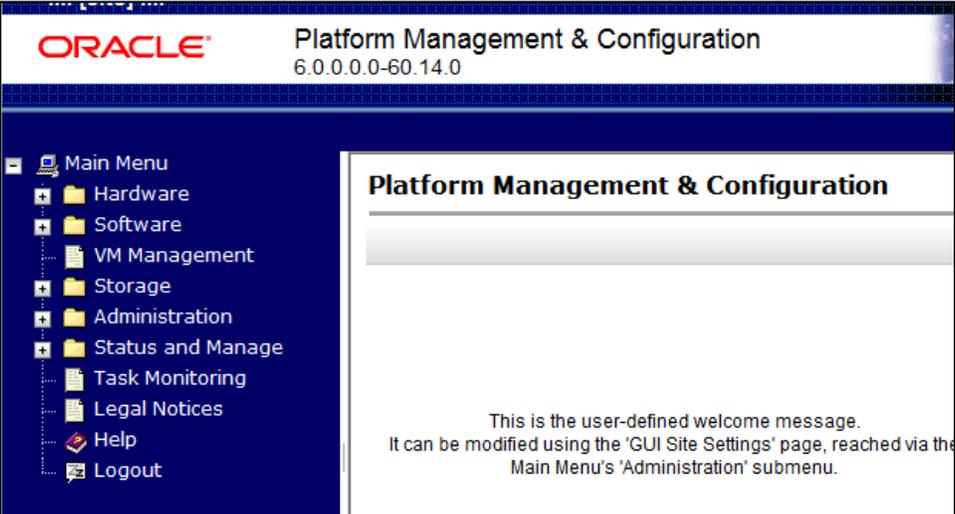
This procedure assumes that the DSR 7.1 or later OAM has already been installed in a virtual environment on the server blade, as described in as described in **Error! Reference source not found.**7 (or higher) [6].

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

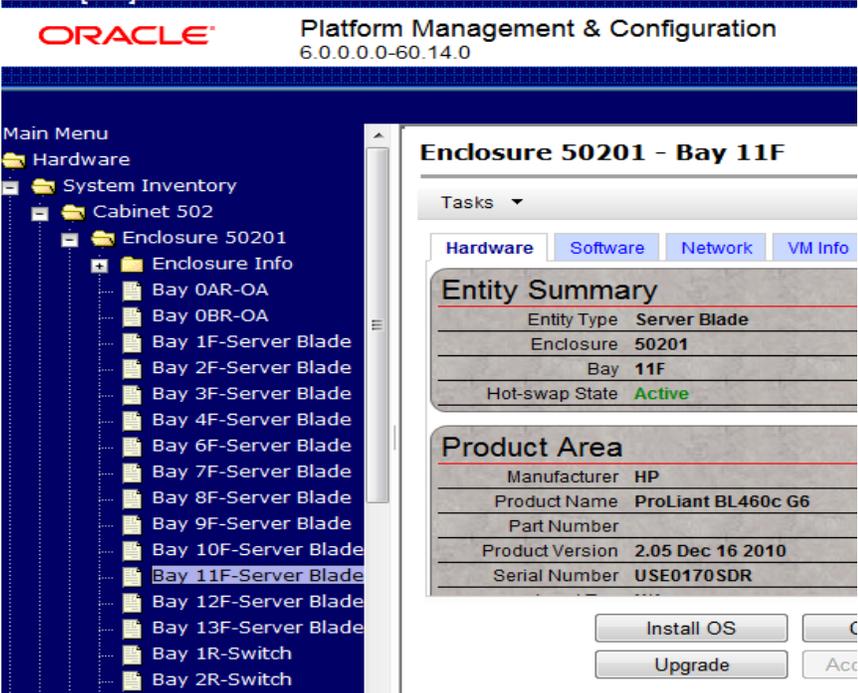
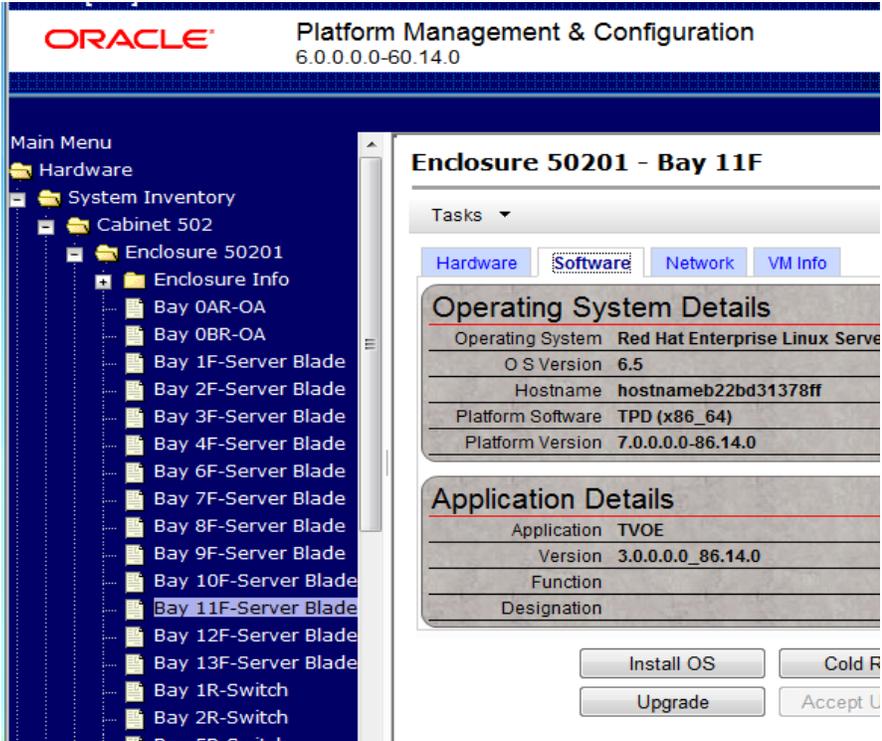
### Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<p>1.</p> <input type="checkbox"/>	<p><b>PMAC Server GUI:</b></p> <p>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> <i>If presented with the "security certificate" warning screen shown to the right, choose the following option: "Continue to this website (not recommended)".</i></p>	

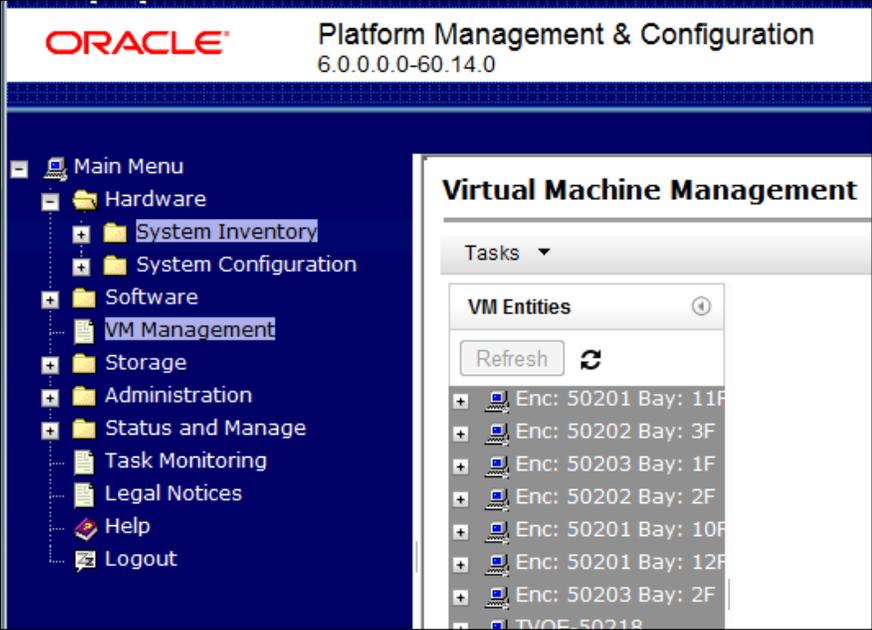
**Procedure 8:** Configuring the SDS SOAM Servers (All SOAM sites)

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

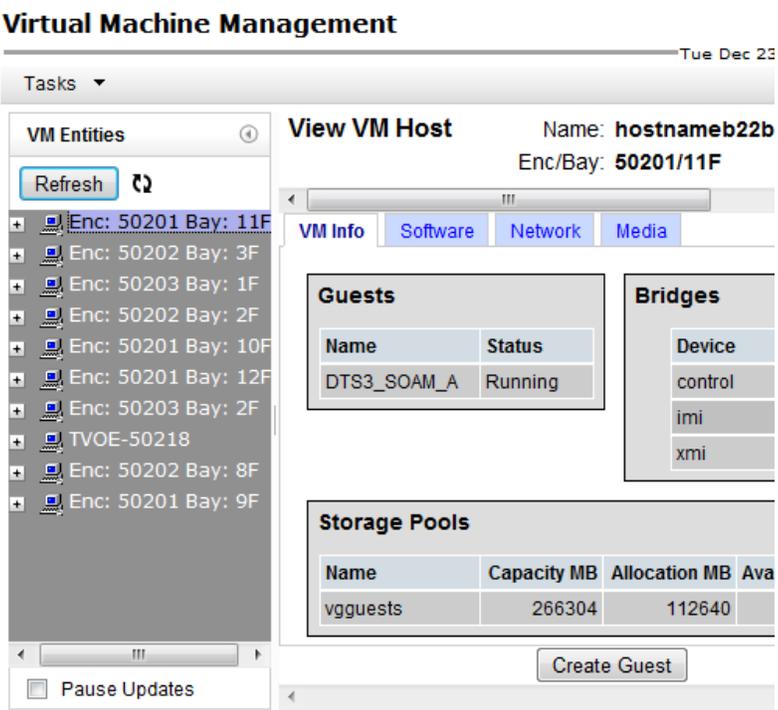
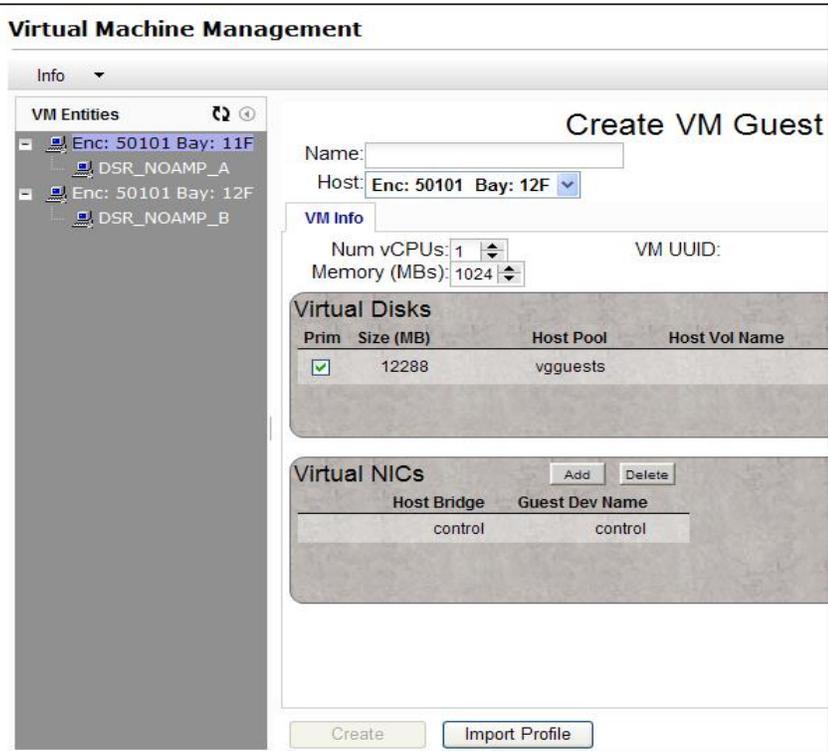
**Procedure 8:** Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<p>4.</p> <p><input type="checkbox"/></p>	<p><b>PMAC Server GUI:</b></p> <p>Select desired OAM server blade...</p> <p><b>Main Menu</b></p> <ul style="list-style-type: none"> <li>→ Hardware</li> <li>→ System Inventory</li> <li>→ &lt;Enclosure&gt;</li> <li>→ &lt;Server Blade&gt;</li> </ul> <p>...as shown on the right.</p>	 <p>The screenshot shows the Oracle Platform Management &amp; Configuration interface. The title bar reads 'ORACLE Platform Management &amp; Configuration 6.0.0.0.0-60.14.0'. The left sidebar shows a 'Main Menu' with 'Hardware' selected, leading to 'System Inventory' &gt; 'Cabinet 502' &gt; 'Enclosure 50201'. The main content area is titled 'Enclosure 50201 - Bay 11F' and has tabs for 'Hardware', 'Software', 'Network', and 'VM Info'. The 'Hardware' tab is active, showing an 'Entity Summary' table with fields: Entity Type (Server Blade), Enclosure (50201), Bay (11F), and Hot-swap State (Active). Below this is a 'Product Area' table with fields: Manufacturer (HP), Product Name (ProLiant BL460c G6), Part Number, Product Version (2.05 Dec 16 2010), and Serial Number (USE0170SDR). Buttons for 'Install OS', 'Upgrade', and 'Accept' are visible at the bottom.</p>
<p>5.</p> <p><input type="checkbox"/></p>	<p><b>PMAC Server GUI:</b></p> <p>Select the Software tab.</p> <p>...as shown on the right.</p> <p>Verify that TVOE application has been installed.</p>	 <p>The screenshot shows the same Oracle Platform Management &amp; Configuration interface, but the 'Software' tab is now selected. The 'Entity Summary' and 'Product Area' sections are still visible. Below them, the 'Operating System Details' section shows: Operating System (Red Hat Enterprise Linux Server), OS Version (6.5), Hostname (hostnameb22bd31378ff), Platform Software (TPD (x86_64)), and Platform Version (7.0.0.0.0-86.14.0). The 'Application Details' section shows: Application (TVOE), Version (3.0.0.0.0_86.14.0), Function, and Designation. Buttons for 'Install OS', 'Cold R', 'Upgrade', and 'Accept U' are visible at the bottom.</p>

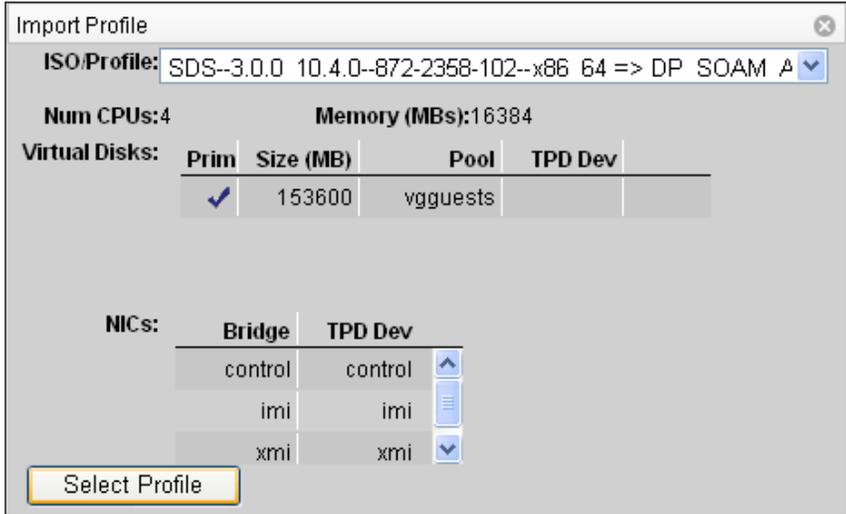
**Procedure 8:** Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<div style="display: flex; align-items: center;">  <div> <p><b>IF TVOE WAS NOT INSTALLED ON THE BLADE SERVER, STOP AND EXECUTE THE FOLLOWING STEPS:</b></p> <ol style="list-style-type: none"> <li>1) Verify that the enclosure and bay number are correct.</li> <li>2) 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 THE TVOE APPLICATION WAS ALREADY INSTALLED, THEN CONTINUE ON TO THE NEXT STEP IN THIS PROCEDURE.</b></p> </div> </div>		
<p>6.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 5px 0;"></div>	<p><b>PMAC Server GUI:</b></p> <p>Select ...</p> <p><b>Main Menu</b> → VM Management</p> <p>...as shown on the right.</p>	

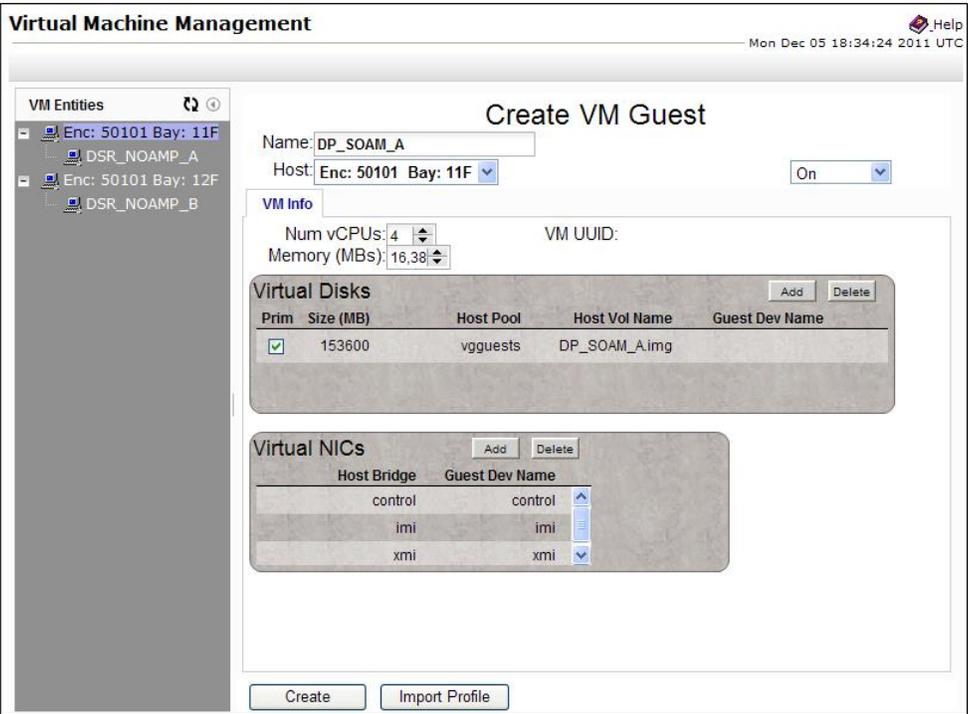
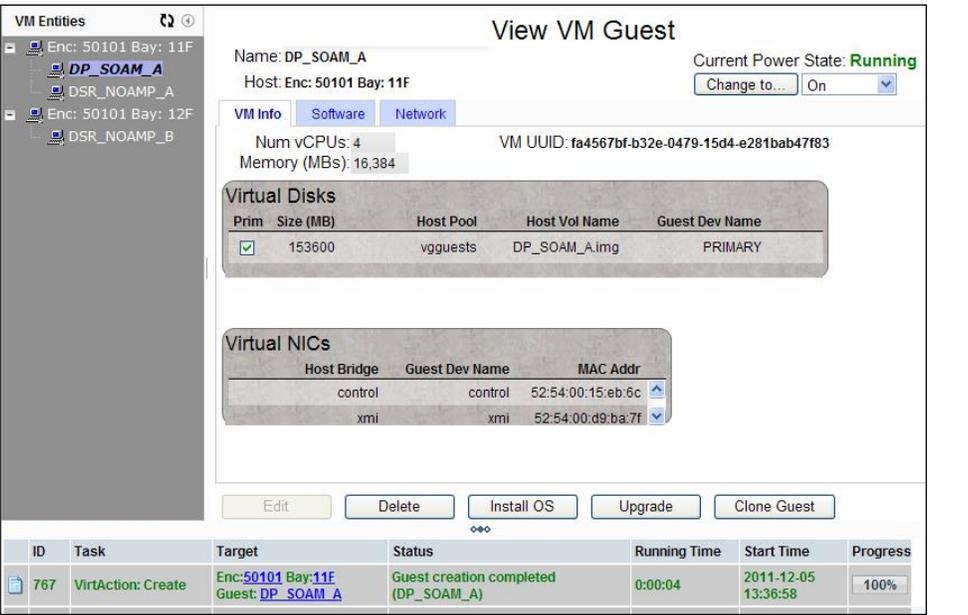
**Procedure 8:** Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<p>7.</p> <p><input type="checkbox"/></p>	<p><b>PMAC Server GUI:</b></p> <p>1) In the VM Entities box, select the desired server</p> <p>...as shown on the right.</p> <p>2) Click the “<b>Create Guest</b>” dialogue button</p>	
<p>8.</p> <p><input type="checkbox"/></p>	<p><b>PMAC Server GUI:</b></p> <p>Click the “<b>Import Profile</b>” dialogue button</p> <p>...as shown on the right.</p>	

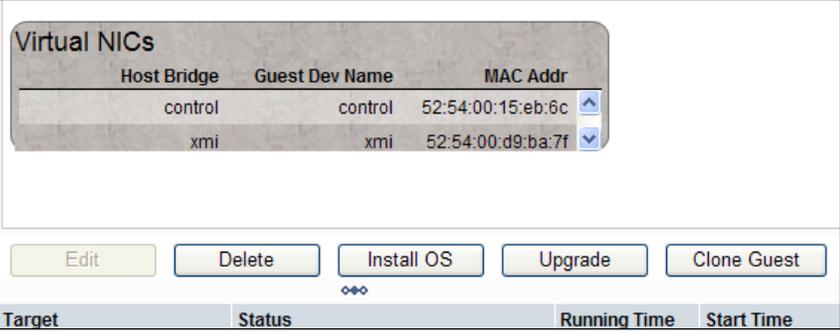
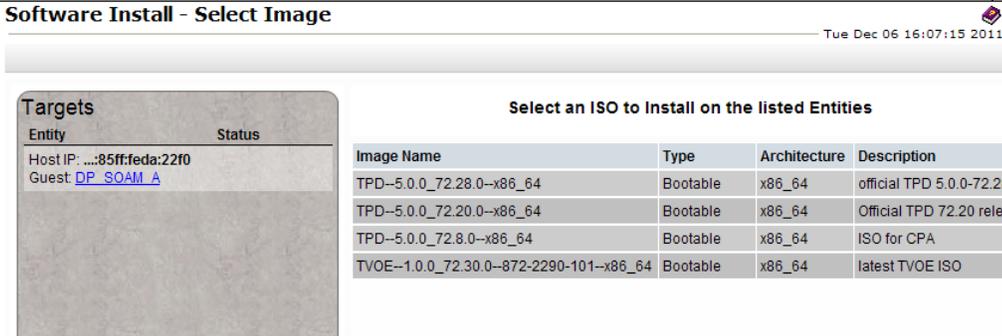
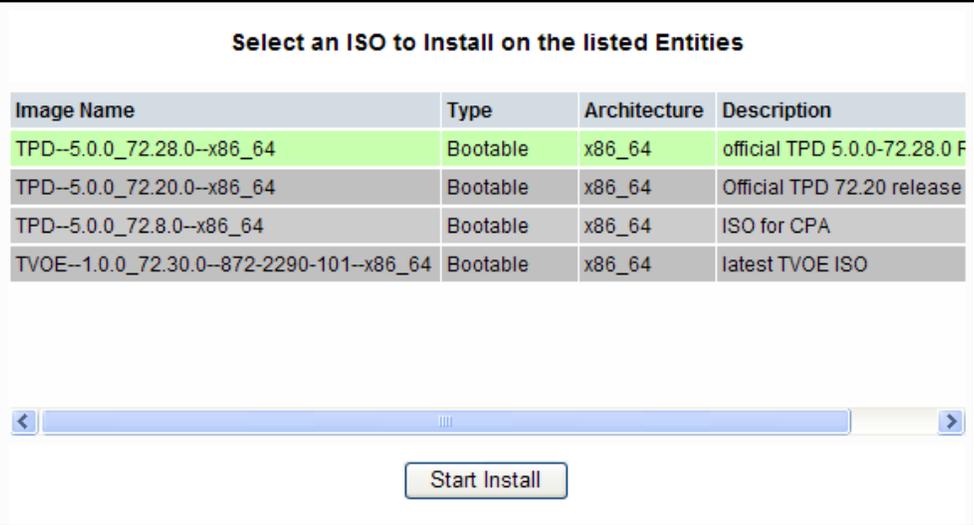
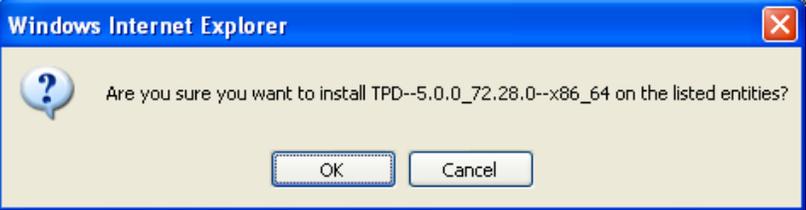
**Procedure 8:** Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result												
<p>9.</p> <p><input type="checkbox"/></p>	<p><b>PMAC Server GUI:</b></p> <p>1) Select the desired <b>ISO/Profile</b> value</p> <p>...as shown on the right.</p> <p>2) Click the <b>“Select Profile”</b> 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>SOAM VM TVOE Hardware Type(s)</th> <th>Choose Profile (&lt;Application ISO NAME&gt;→)</th> </tr> </thead> <tbody> <tr> <td>SDS 7.1</td> <td>HP BL460 Gen 6 Blade , HP BL460 Gen 8 Blade</td> <td>DP_SOAM_A</td> </tr> <tr> <td>SDS 7.1</td> <td>HP BL460 Gen 6 Blade , HP BL460 Gen 8 Blade</td> <td>DP_SOAM_B</td> </tr> <tr> <td>SDS 7.2</td> <td>HP BL460 Gen 8 Blade</td> <td>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?	SOAM VM TVOE Hardware Type(s)	Choose Profile (<Application ISO NAME>→)	SDS 7.1	HP BL460 Gen 6 Blade , HP BL460 Gen 8 Blade	DP_SOAM_A	SDS 7.1	HP BL460 Gen 6 Blade , HP BL460 Gen 8 Blade	DP_SOAM_B	SDS 7.2	HP BL460 Gen 8 Blade	DP_SOAM_1B_RE
SDS Release?	SOAM VM TVOE Hardware Type(s)	Choose Profile (<Application ISO NAME>→)												
SDS 7.1	HP BL460 Gen 6 Blade , HP BL460 Gen 8 Blade	DP_SOAM_A												
SDS 7.1	HP BL460 Gen 6 Blade , HP BL460 Gen 8 Blade	DP_SOAM_B												
SDS 7.2	HP BL460 Gen 8 Blade	DP_SOAM_1B_RE												

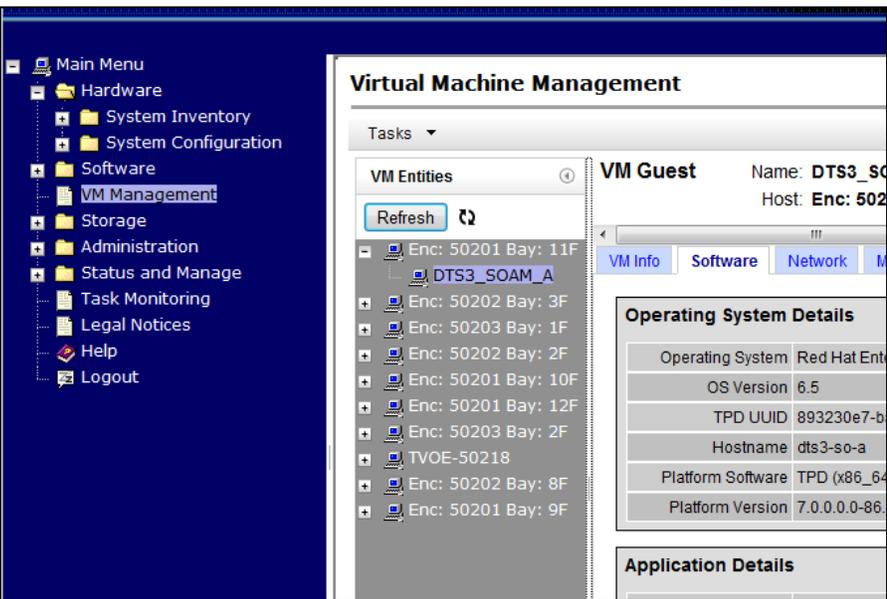
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result														
<p>10.</p> <p><input type="checkbox"/></p>	<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> <p><b>NOTE:</b> If the VM Guest creation fails due to error <b>"Host resources are oversubscribed."</b>, then re-execute Steps 6 - 10 of this procedure and modify the <b>Memory(MBs):</b> value from <b>16,384</b> to <b>16,372</b> before clicking the <b>"Create"</b> button.</p>															
<p>11.</p> <p><input type="checkbox"/></p>	<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 the right with <b>Progress</b> value of <b>100%</b>.</p>	 <table border="1"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> <th>Status</th> <th>Running Time</th> <th>Start Time</th> <th>Progress</th> </tr> </thead> <tbody> <tr> <td>767</td> <td>VirtAction: Create</td> <td>Enc:50101 Bay:11F Guest: DP_SOAM_A</td> <td>Guest creation completed (DP_SOAM_A)</td> <td>0:00:04</td> <td>2011-12-05 13:36:58</td> <td>100%</td> </tr> </tbody> </table>	ID	Task	Target	Status	Running Time	Start Time	Progress	767	VirtAction: Create	Enc:50101 Bay:11F Guest: DP_SOAM_A	Guest creation completed (DP_SOAM_A)	0:00:04	2011-12-05 13:36:58	100%
ID	Task	Target	Status	Running Time	Start Time	Progress										
767	VirtAction: Create	Enc:50101 Bay:11F Guest: DP_SOAM_A	Guest creation completed (DP_SOAM_A)	0:00:04	2011-12-05 13:36:58	100%										

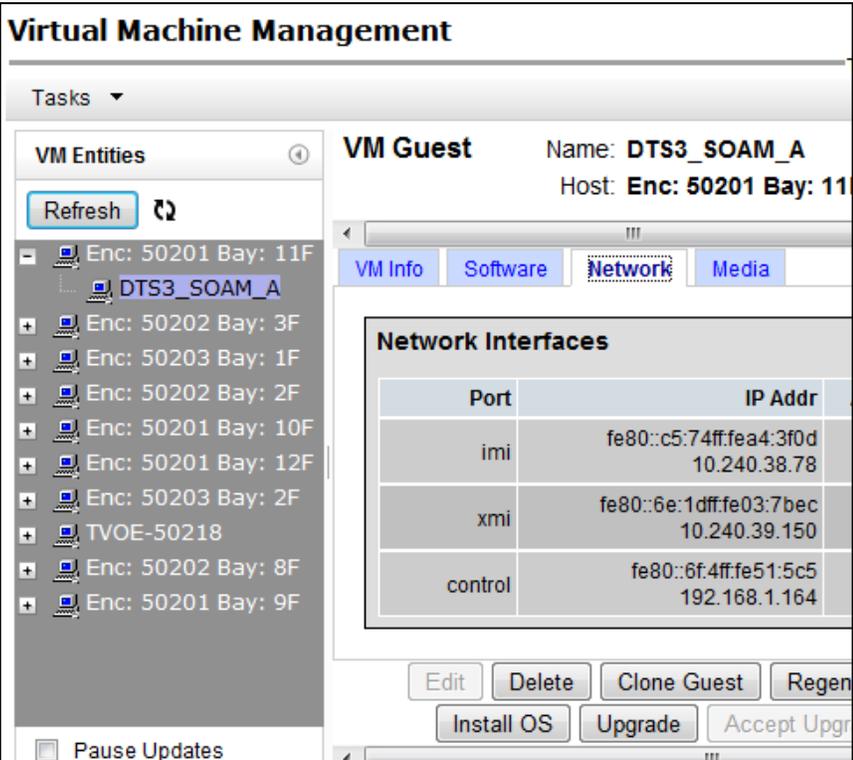
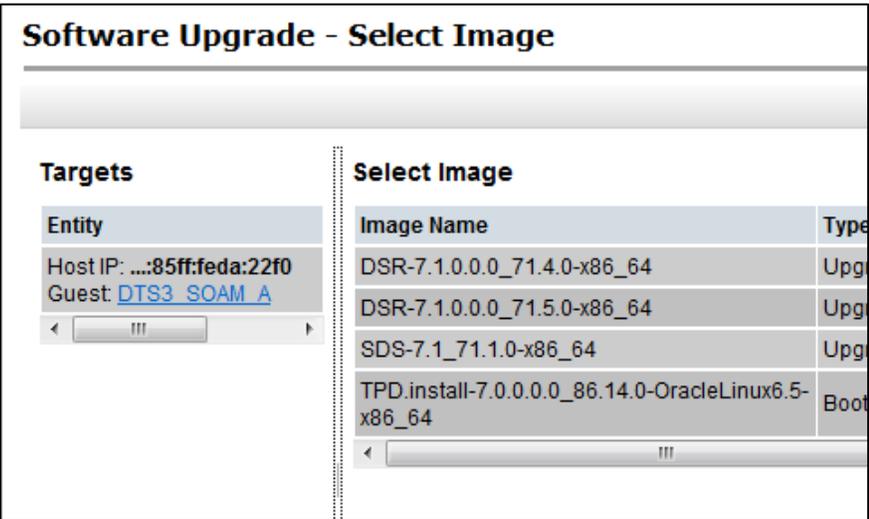
**Procedure 8:** Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<p>12.</p> <p><input type="checkbox"/></p>	<p><b>PMAC Server GUI:</b></p> <p>Install the operating system by clicking the <b>“Install OS”</b> dialogue button</p>	
<p>13.</p> <p><input type="checkbox"/></p>	<p><b>PMAC Server GUI:</b></p> <p>The user should see a screen similar to the one on the right.</p>	
<p>14.</p> <p><input type="checkbox"/></p>	<p><b>PMAC Server GUI:</b></p> <p>1) Select the desired <b>TPD Image</b></p> <p>2) Click the <b>“Start Install”</b> dialogue button.</p>	
<p>15.</p> <p><input type="checkbox"/></p>	<p><b>PMAC Server GUI:</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. Click the <b>“OK”</b> dialogue button.</p>	

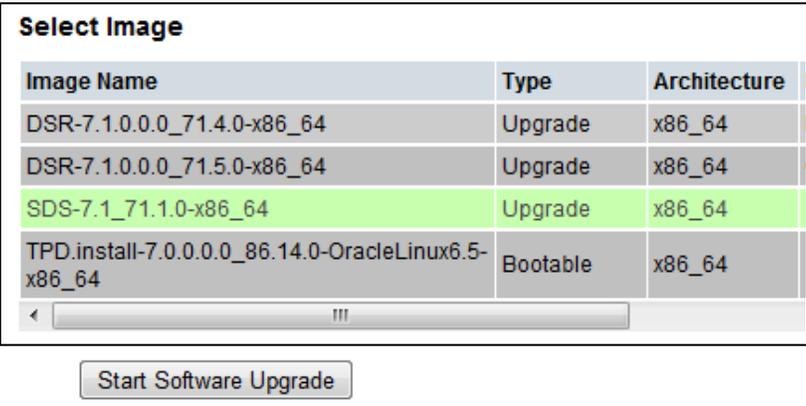
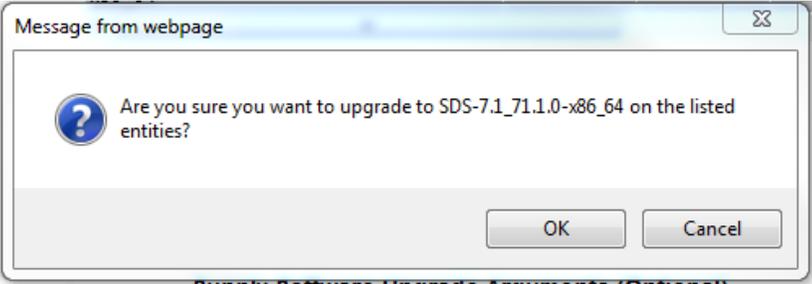
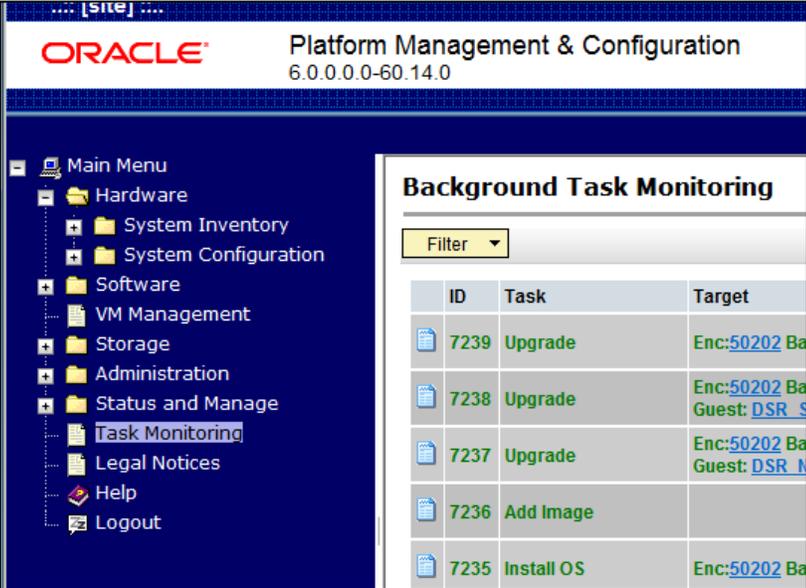
**Procedure 8:** Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result																		
<p>16.</p> <p><input type="checkbox"/></p>	<p><b>PMAC Server GUI:</b></p> <p>An installation task will be started. This task takes ~11 minutes. The user can monitor this task by doing the following:</p> <p>Select...</p> <p><b>Main Menu</b> → <b>Task Monitoring</b></p> <p>Wait until you see the <b>Progress</b> value equal <b>100%</b>.</p>	 <table border="1"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> </tr> </thead> <tbody> <tr> <td>7239</td> <td>Upgrade</td> <td>Enc:50202 Ba</td> </tr> <tr> <td>7238</td> <td>Upgrade</td> <td>Enc:50202 Ba Guest: DSR S</td> </tr> <tr> <td>7237</td> <td>Upgrade</td> <td>Enc:50202 Ba Guest: DSR M</td> </tr> <tr> <td>7236</td> <td>Add Image</td> <td></td> </tr> <tr> <td>7235</td> <td>Install OS</td> <td>Enc:50202 Ba</td> </tr> </tbody> </table>	ID	Task	Target	7239	Upgrade	Enc:50202 Ba	7238	Upgrade	Enc:50202 Ba Guest: DSR S	7237	Upgrade	Enc:50202 Ba Guest: DSR M	7236	Add Image		7235	Install OS	Enc:50202 Ba
ID	Task	Target																		
7239	Upgrade	Enc:50202 Ba																		
7238	Upgrade	Enc:50202 Ba Guest: DSR S																		
7237	Upgrade	Enc:50202 Ba Guest: DSR M																		
7236	Add Image																			
7235	Install OS	Enc:50202 Ba																		
<p>17.</p> <p><input type="checkbox"/></p>	<p><b>PMAC Server GUI:</b></p> <p>1) Select...</p> <p><b>Main Menu</b> → <b>VM Management</b></p> <p>2) Select the <b>"Software"</b> tab</p> <p>3) Verify the operating system has been installed.</p> <p>4) Verify the <b>"Application Details"</b> section is blank.</p>	 <table border="1"> <thead> <tr> <th colspan="2">Operating System Details</th> </tr> </thead> <tbody> <tr> <td>Operating System</td> <td>Red Hat Ent</td> </tr> <tr> <td>OS Version</td> <td>6.5</td> </tr> <tr> <td>TPD UUID</td> <td>893230e7-b</td> </tr> <tr> <td>Hostname</td> <td>dts3-so-a</td> </tr> <tr> <td>Platform Software</td> <td>TPD (x86_64</td> </tr> <tr> <td>Platform Version</td> <td>7.0.0.0-86.</td> </tr> </tbody> </table>	Operating System Details		Operating System	Red Hat Ent	OS Version	6.5	TPD UUID	893230e7-b	Hostname	dts3-so-a	Platform Software	TPD (x86_64	Platform Version	7.0.0.0-86.				
Operating System Details																				
Operating System	Red Hat Ent																			
OS Version	6.5																			
TPD UUID	893230e7-b																			
Hostname	dts3-so-a																			
Platform Software	TPD (x86_64																			
Platform Version	7.0.0.0-86.																			

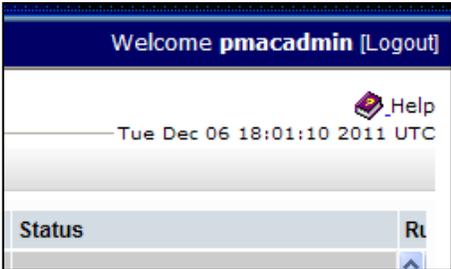
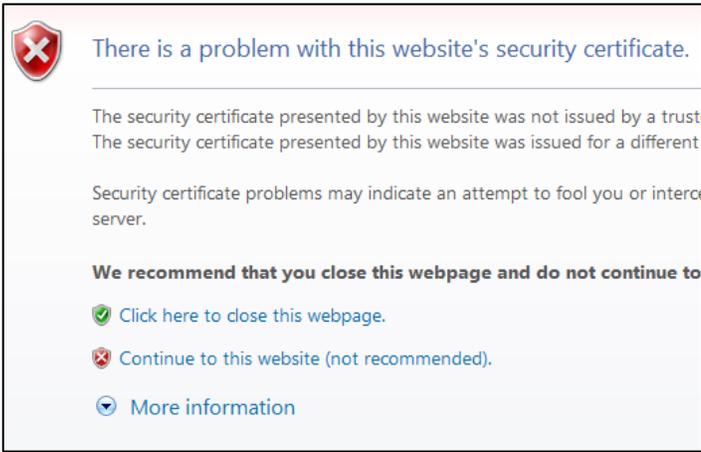
**Procedure 8:** Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result													
<p>18.</p> <p><input type="checkbox"/></p>	<p><b>PMAC Server GUI:</b></p> <p>1) Select the “Network” tab</p> <p>2) Record the control IP address for this SOAM VM; it will be referenced later.</p> <p>3) Select the “Upgrade” dialogue button</p>	 <p><b>Virtual Machine Management</b></p> <p>Tasks ▾</p> <p>VM Entities <span>⌵</span></p> <p>Refresh <span>↻</span></p> <ul style="list-style-type: none"> <li>Enc: 50201 Bay: 11F             <ul style="list-style-type: none"> <li>DTS3_SOAM_A</li> </ul> </li> <li>Enc: 50202 Bay: 3F</li> <li>Enc: 50203 Bay: 1F</li> <li>Enc: 50202 Bay: 2F</li> <li>Enc: 50201 Bay: 10F</li> <li>Enc: 50201 Bay: 12F</li> <li>Enc: 50203 Bay: 2F</li> <li>TVOE-50218</li> <li>Enc: 50202 Bay: 8F</li> <li>Enc: 50201 Bay: 9F</li> </ul> <p>VM Guest Name: DTS3_SOAM_A Host: Enc: 50201 Bay: 11F</p> <p>VM Info   Software   <b>Network</b>   Media</p> <p><b>Network Interfaces</b></p> <table border="1"> <thead> <tr> <th>Port</th> <th>IP Addr</th> </tr> </thead> <tbody> <tr> <td>imi</td> <td>fe80::c5:74ff:fea4:3f0d 10.240.38.78</td> </tr> <tr> <td>xmi</td> <td>fe80::6e:1dff:fe03:7bec 10.240.39.150</td> </tr> <tr> <td>control</td> <td>fe80::6f:4ff:fe51:5c5 192.168.1.164</td> </tr> </tbody> </table> <p>Edit   Delete   Clone Guest   Regen</p> <p>Install OS   Upgrade   Accept Upgr</p> <p><input type="checkbox"/> Pause Updates</p>	Port	IP Addr	imi	fe80::c5:74ff:fea4:3f0d 10.240.38.78	xmi	fe80::6e:1dff:fe03:7bec 10.240.39.150	control	fe80::6f:4ff:fe51:5c5 192.168.1.164					
Port	IP Addr														
imi	fe80::c5:74ff:fea4:3f0d 10.240.38.78														
xmi	fe80::6e:1dff:fe03:7bec 10.240.39.150														
control	fe80::6f:4ff:fe51:5c5 192.168.1.164														
<p>19.</p> <p><input type="checkbox"/></p>	<p><b>PMAC Server GUI:</b></p> <p>The user should be presented the Select Image screen as shown on the right</p>	 <p><b>Software Upgrade - Select Image</b></p> <p>Targets</p> <table border="1"> <thead> <tr> <th>Entity</th> </tr> </thead> <tbody> <tr> <td>Host IP: ...:85ff:feda:22f0</td> </tr> <tr> <td>Guest: <a href="#">DTS3_SOAM_A</a></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>DSR-7.1.0.0.0_71.4.0-x86_64</td> <td>Upg</td> </tr> <tr> <td>DSR-7.1.0.0.0_71.5.0-x86_64</td> <td>Upg</td> </tr> <tr> <td>SDS-7.1_71.1.0-x86_64</td> <td>Upg</td> </tr> <tr> <td>TPD.install-7.0.0.0.0_86.14.0-OracleLinux6.5-x86_64</td> <td>Boot</td> </tr> </tbody> </table>	Entity	Host IP: ...:85ff:feda:22f0	Guest: <a href="#">DTS3_SOAM_A</a>	Image Name	Type	DSR-7.1.0.0.0_71.4.0-x86_64	Upg	DSR-7.1.0.0.0_71.5.0-x86_64	Upg	SDS-7.1_71.1.0-x86_64	Upg	TPD.install-7.0.0.0.0_86.14.0-OracleLinux6.5-x86_64	Boot
Entity															
Host IP: ...:85ff:feda:22f0															
Guest: <a href="#">DTS3_SOAM_A</a>															
Image Name	Type														
DSR-7.1.0.0.0_71.4.0-x86_64	Upg														
DSR-7.1.0.0.0_71.5.0-x86_64	Upg														
SDS-7.1_71.1.0-x86_64	Upg														
TPD.install-7.0.0.0.0_86.14.0-OracleLinux6.5-x86_64	Boot														

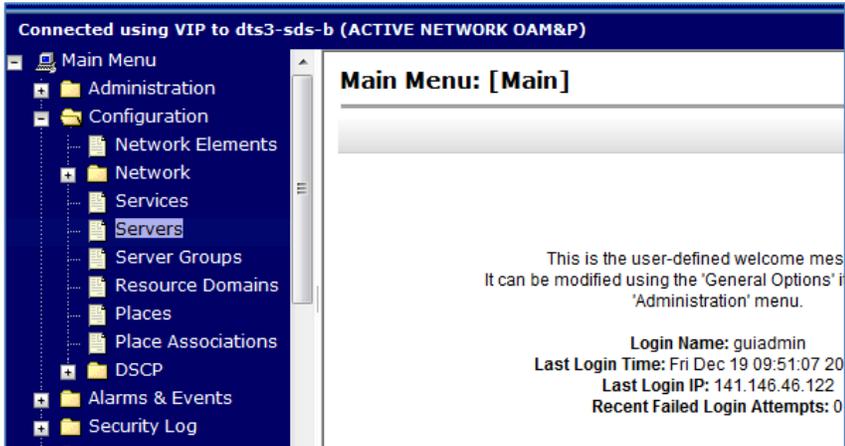
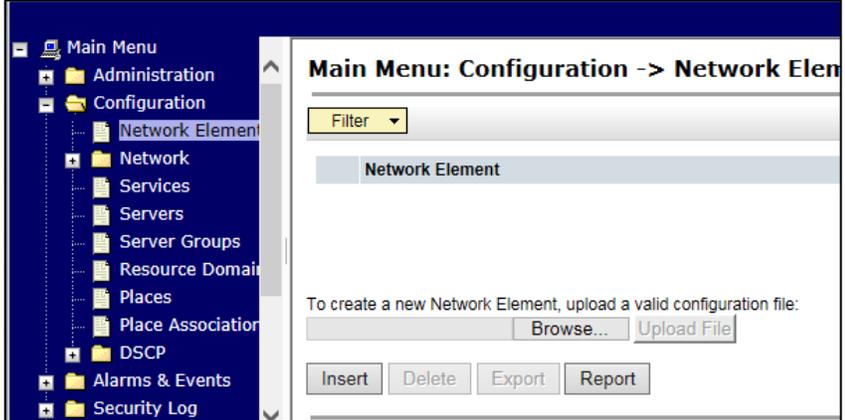
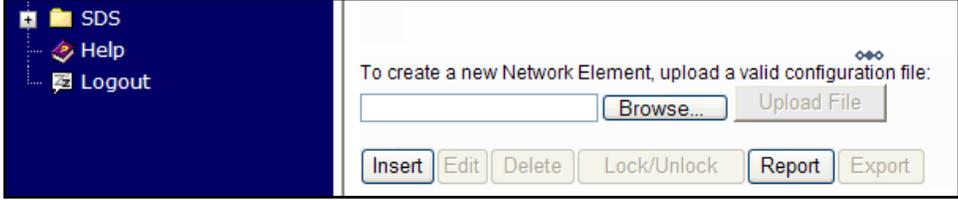
**Procedure 8:** Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result																		
<p>20.</p> <p><input type="checkbox"/></p>	<p><b>PMAC Server GUI:</b></p> <p>1) Select the correct <b>SDS</b> version from the <b>"Image Name"</b> list. The line entry should now be highlighted in <b>GREEN</b>.</p> <p>2) Select the <b>"Start Upgrade"</b> dialogue button</p>	 <table border="1"> <thead> <tr> <th>Image Name</th> <th>Type</th> <th>Architecture</th> </tr> </thead> <tbody> <tr> <td>DSR-7.1.0.0.0_71.4.0-x86_64</td> <td>Upgrade</td> <td>x86_64</td> </tr> <tr> <td>DSR-7.1.0.0.0_71.5.0-x86_64</td> <td>Upgrade</td> <td>x86_64</td> </tr> <tr style="background-color: #90EE90;"> <td>SDS-7.1_71.1.0-x86_64</td> <td>Upgrade</td> <td>x86_64</td> </tr> <tr> <td>TPD.install-7.0.0.0.0_86.14.0-OracleLinux6.5-x86_64</td> <td>Bootable</td> <td>x86_64</td> </tr> </tbody> </table> <p>Start Software Upgrade</p>	Image Name	Type	Architecture	DSR-7.1.0.0.0_71.4.0-x86_64	Upgrade	x86_64	DSR-7.1.0.0.0_71.5.0-x86_64	Upgrade	x86_64	SDS-7.1_71.1.0-x86_64	Upgrade	x86_64	TPD.install-7.0.0.0.0_86.14.0-OracleLinux6.5-x86_64	Bootable	x86_64			
Image Name	Type	Architecture																		
DSR-7.1.0.0.0_71.4.0-x86_64	Upgrade	x86_64																		
DSR-7.1.0.0.0_71.5.0-x86_64	Upgrade	x86_64																		
SDS-7.1_71.1.0-x86_64	Upgrade	x86_64																		
TPD.install-7.0.0.0.0_86.14.0-OracleLinux6.5-x86_64	Bootable	x86_64																		
<p>21.</p> <p><input type="checkbox"/></p>	<p><b>PMAC Server GUI:</b></p> <p>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>																			
<p>22.</p> <p><input type="checkbox"/></p>	<p><b>PMAC Server GUI:</b></p> <p>An upgrade task will be started. This task takes ~8 minutes. The user can monitor this task by doing the following:</p> <p>Select...</p> <p><b>Main Menu</b> → <b>Task Monitoring</b></p> <p>Wait until you see the <b>Progress</b> value equal <b>100%</b>.</p>	 <table border="1"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> </tr> </thead> <tbody> <tr> <td>7239</td> <td>Upgrade</td> <td>Enc:50202 Ba</td> </tr> <tr> <td>7238</td> <td>Upgrade</td> <td>Enc:50202 Ba Guest: DSR_</td> </tr> <tr> <td>7237</td> <td>Upgrade</td> <td>Enc:50202 Ba Guest: DSR_</td> </tr> <tr> <td>7236</td> <td>Add Image</td> <td></td> </tr> <tr> <td>7235</td> <td>Install OS</td> <td>Enc:50202 Ba</td> </tr> </tbody> </table>	ID	Task	Target	7239	Upgrade	Enc:50202 Ba	7238	Upgrade	Enc:50202 Ba Guest: DSR_	7237	Upgrade	Enc:50202 Ba Guest: DSR_	7236	Add Image		7235	Install OS	Enc:50202 Ba
ID	Task	Target																		
7239	Upgrade	Enc:50202 Ba																		
7238	Upgrade	Enc:50202 Ba Guest: DSR_																		
7237	Upgrade	Enc:50202 Ba Guest: DSR_																		
7236	Add Image																			
7235	Install OS	Enc:50202 Ba																		
<p>23.</p> <p><input type="checkbox"/></p>	<p>Repeat <b>Steps 4 - 22</b> of this procedure for the <b>SOAM B Server</b>.</p>																			

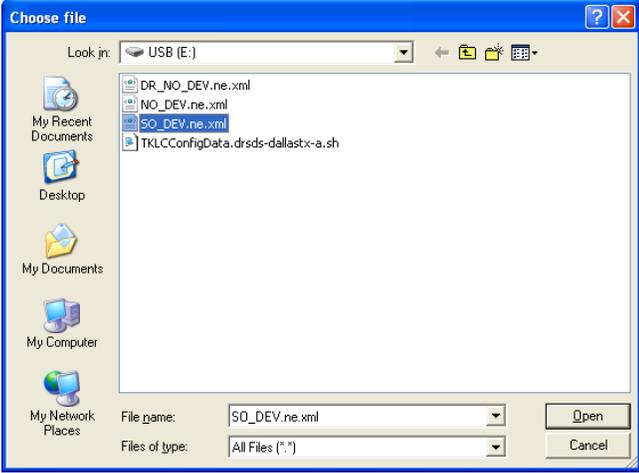
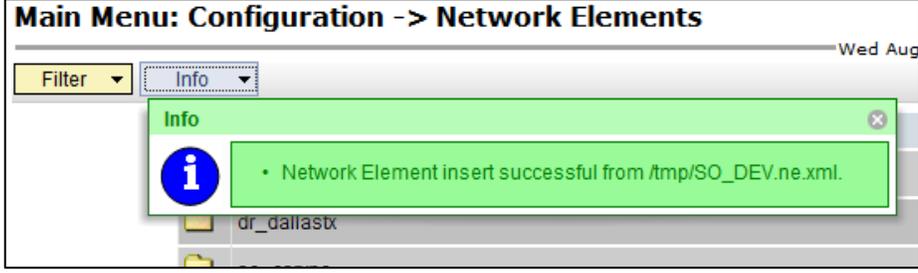
**Procedure 8:** Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<p>24.</p> <p><input type="checkbox"/></p>	<p><b>PMAC Server GUI:</b></p> <p>Click the “Logout” link on the PMAC server GUI.</p>	
<p>25.</p> <p><input type="checkbox"/></p>	<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> <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>26.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</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>	

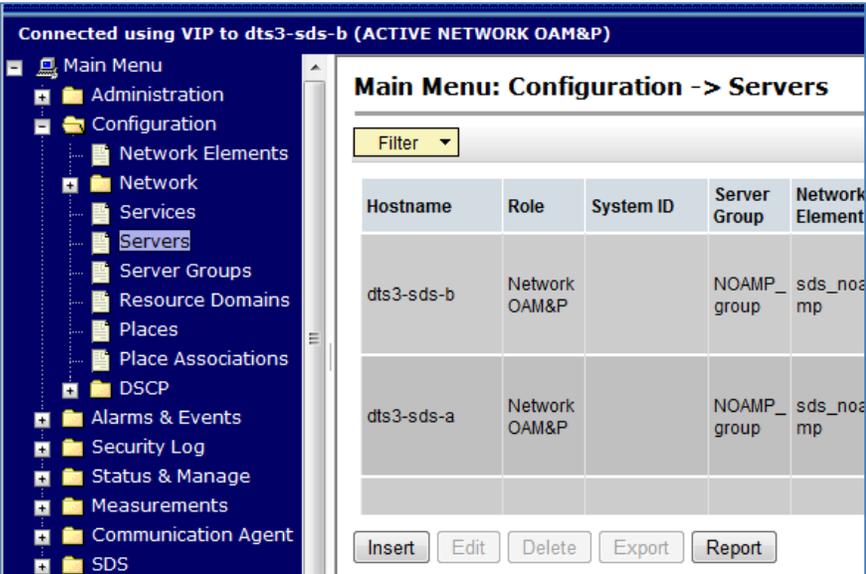
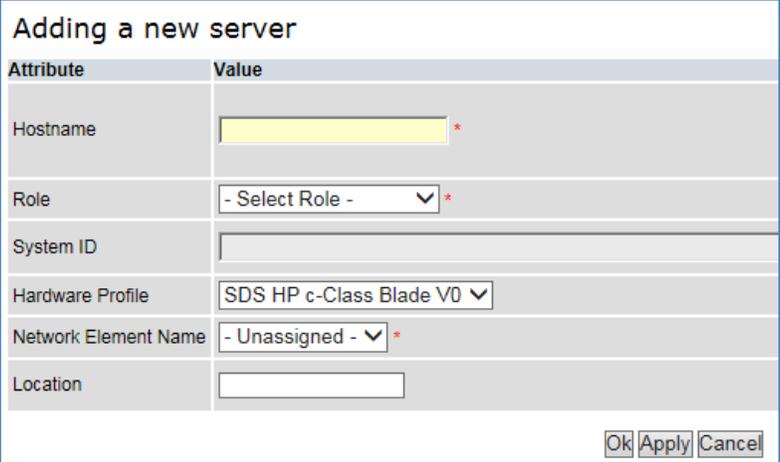
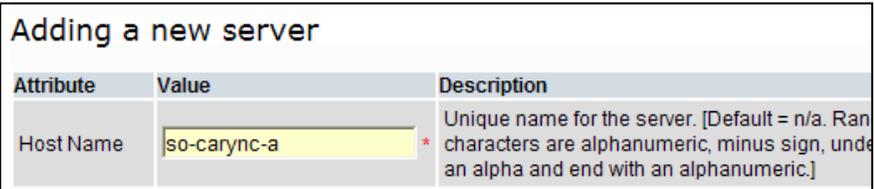
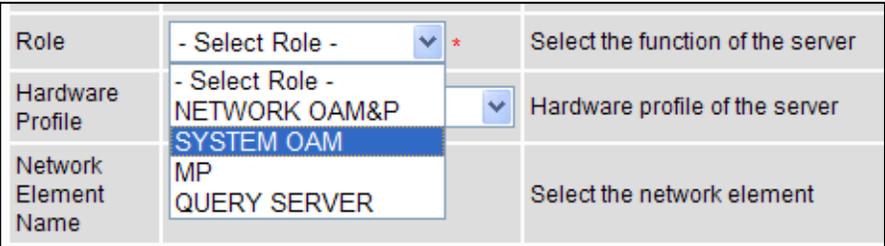
**Procedure 8:** Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<p>27.</p> <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>28.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b>  → Configuration  → Network Elements</p> <p>...as shown on the right.</p>	
<p>29.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>From the <b>Configuration / Network Elements</b> screen, select the “Browse” dialogue button</p>	

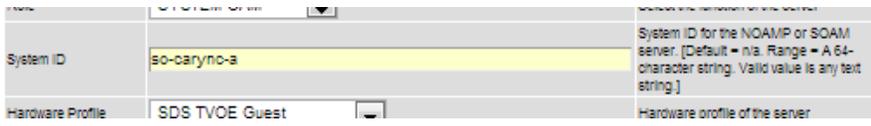
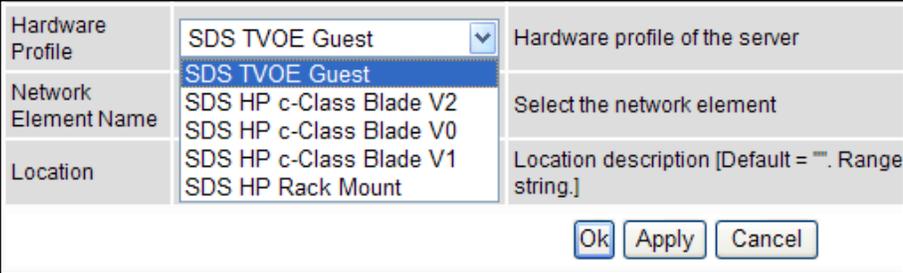
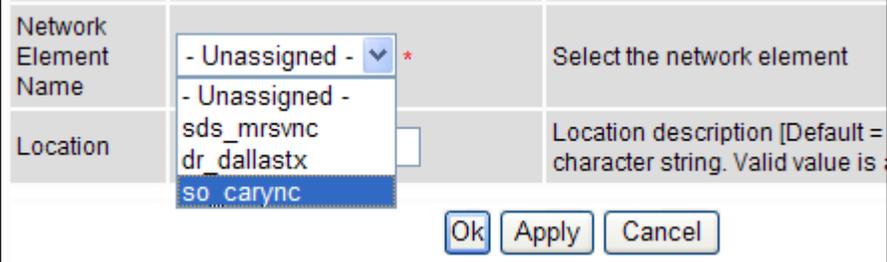
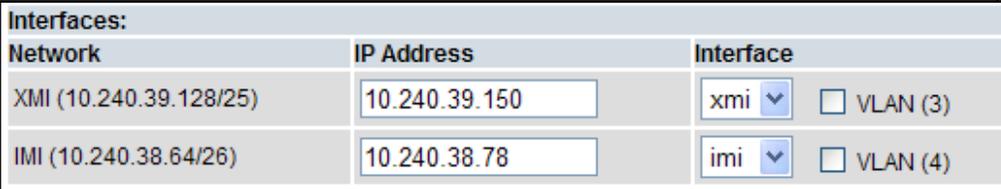
**Procedure 8:** Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<p>30.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p><b>Note:</b> This step assumes that the <b>.xml</b> files were previously prepared, as described in <b>Appendix F</b>.</p> <p>1) Select the location containing the site <b>.xml</b> file.</p> <p>2) Select the <b>.xml</b> file and click the <b>“Open”</b> dialogue button.</p>	
<p>31.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Select the <b>“Upload File”</b> dialogue button (bottom left corner of screen).</p>	
<p>32.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</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>	

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

Step	Procedure	Result
<p>33.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>1) Select...</p> <p><b>Main Menu</b> → <b>Configuration</b> → <b>Servers</b></p> <p>...as shown on the right.</p> <p>2) Select the "Insert" dialogue button</p>	
<p>34.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>The user is now presented with the "Adding a new server" configuration screen.</p>	
<p>35.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Input the assigned "hostname" for OAM Server.</p>	
<p>36.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Select "SYSTEM OAM" for the Role from the pull-down menu.</p>	

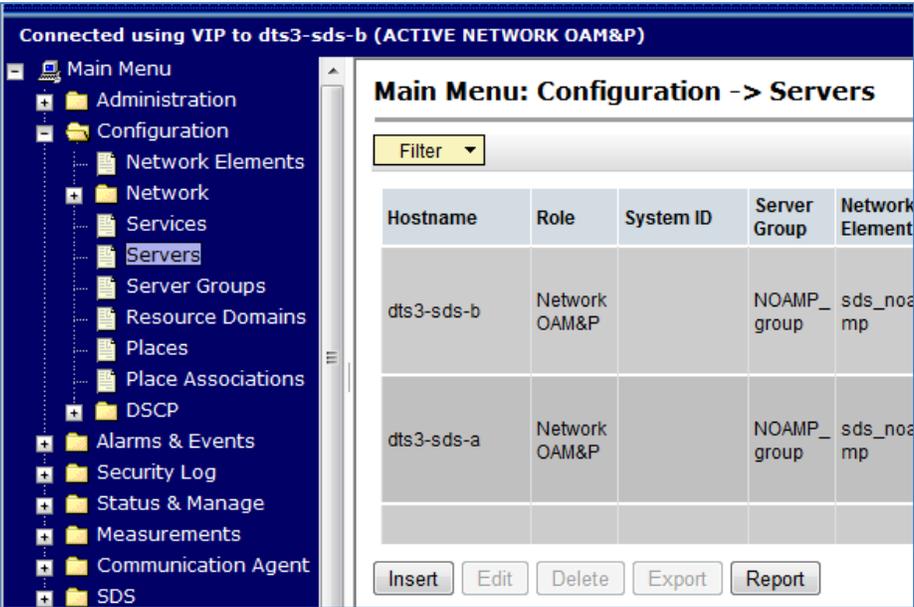
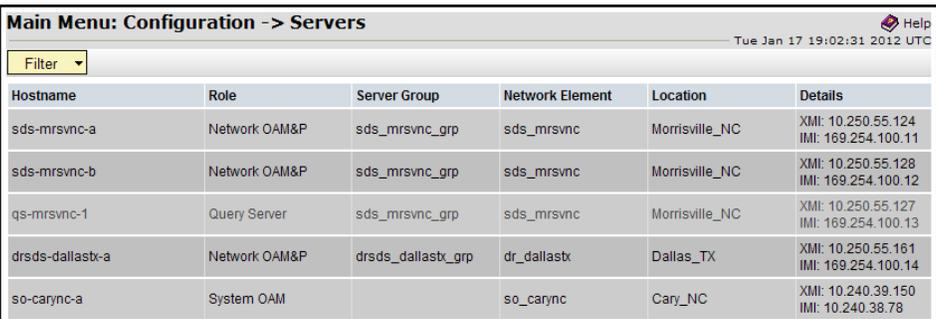
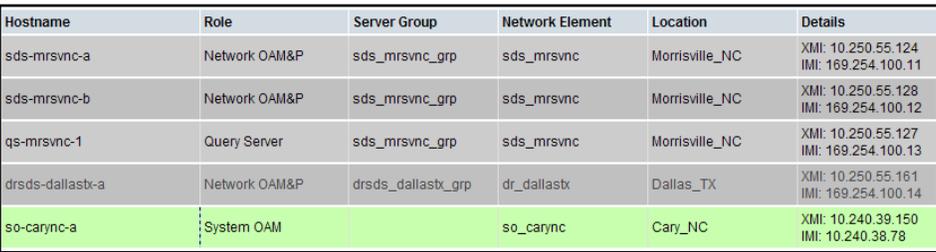
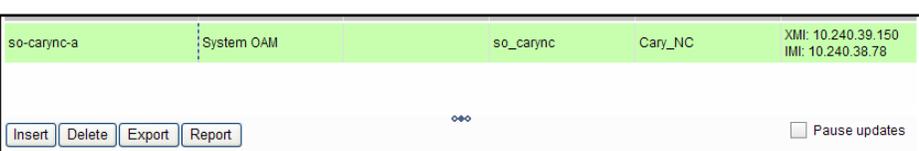
**Procedure 8:** Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result												
<p>37.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b></p> <p>Input the assigned hostname again as the “<b>System ID</b>” for the SO Server (A or B).</p>													
<p>38.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b></p> <p>Select “<b>SDS TVOE Guest</b>” for the <b>Hardware Profile</b> for the SOAM from the pull-down menu.</p>													
<p>39.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b></p> <p>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 <b>Step 41</b>.</p>													
<p>40.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b></p> <p>Enter the site location.</p>	 <p><b>NOTE:</b> Location is an optional field.</p>												
<p>41.</p> <input type="checkbox"/>	<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 “xmi” and <b>DO NOT</b> check the <b>VLAN</b> checkbox.</p> <p>3) Set the <b>IMI Interface</b> to “imi” and <b>DO NOT</b> check the <b>VLAN</b> checkbox.</p>	 <table border="1"> <thead> <tr> <th colspan="3">Interfaces:</th> </tr> <tr> <th>Network</th> <th>IP Address</th> <th>Interface</th> </tr> </thead> <tbody> <tr> <td>XMI (10.240.39.128/25)</td> <td>10.240.39.150</td> <td>xmi <input type="checkbox"/> VLAN (3)</td> </tr> <tr> <td>IMI (10.240.38.64/26)</td> <td>10.240.38.78</td> <td>imi <input type="checkbox"/> VLAN (4)</td> </tr> </tbody> </table>	Interfaces:			Network	IP Address	Interface	XMI (10.240.39.128/25)	10.240.39.150	xmi <input type="checkbox"/> VLAN (3)	IMI (10.240.38.64/26)	10.240.38.78	imi <input type="checkbox"/> VLAN (4)
Interfaces:														
Network	IP Address	Interface												
XMI (10.240.39.128/25)	10.240.39.150	xmi <input type="checkbox"/> VLAN (3)												
IMI (10.240.38.64/26)	10.240.38.78	imi <input type="checkbox"/> VLAN (4)												

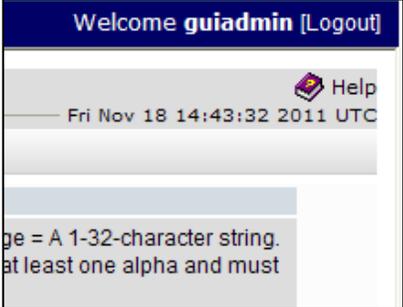
**Procedure 8:** Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<p>42.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</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) If you have another 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>43.</p> <p><input type="checkbox"/></p>	<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>	
<p>44.</p> <p><input type="checkbox"/></p>	<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 8:** Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result																																				
<p>45.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b>                      → Configuration                      → Servers</p> <p>...as shown on the right.</p>	 <p>Connected using VIP to dts3-sds-b (ACTIVE NETWORK OAM&amp;P)</p> <p>Main Menu: Configuration -&gt; Servers</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>System ID</th> <th>Server Group</th> <th>Network Element</th> </tr> </thead> <tbody> <tr> <td>dts3-sds-b</td> <td>Network OAM&amp;P</td> <td></td> <td>NOAMP_group</td> <td>sds_noamp</td> </tr> <tr> <td>dts3-sds-a</td> <td>Network OAM&amp;P</td> <td></td> <td>NOAMP_group</td> <td>sds_noamp</td> </tr> </tbody> </table> <p>Buttons: Insert, Edit, Delete, Export, Report</p>	Hostname	Role	System ID	Server Group	Network Element	dts3-sds-b	Network OAM&P		NOAMP_group	sds_noamp	dts3-sds-a	Network OAM&P		NOAMP_group	sds_noamp																					
Hostname	Role	System ID	Server Group	Network Element																																		
dts3-sds-b	Network OAM&P		NOAMP_group	sds_noamp																																		
dts3-sds-a	Network OAM&P		NOAMP_group	sds_noamp																																		
<p>46.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>On the “Configuration →Servers” screen, find the newly added System OAM server in the list.</p>	 <p>Main Menu: Configuration -&gt; Servers</p> <p>Tue Jan 17 19:02:31 2012 UTC</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>Server Group</th> <th>Network Element</th> <th>Location</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>sds-mrsvnc-a</td> <td>Network OAM&amp;P</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.124 IMI: 169.254.100.11</td> </tr> <tr> <td>sds-mrsvnc-b</td> <td>Network OAM&amp;P</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.128 IMI: 169.254.100.12</td> </tr> <tr> <td>qs-mrsvnc-1</td> <td>Query Server</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.127 IMI: 169.254.100.13</td> </tr> <tr> <td>drdsds-dallasb-a</td> <td>Network OAM&amp;P</td> <td>drdsds_dallasb_grp</td> <td>dr_dallasb</td> <td>Dallas_TX</td> <td>XMI: 10.250.55.161 IMI: 169.254.100.14</td> </tr> <tr> <td>so-carync-a</td> <td>System OAM</td> <td></td> <td>so_carync</td> <td>Cary_NC</td> <td>XMI: 10.240.39.150 IMI: 10.240.38.78</td> </tr> </tbody> </table>	Hostname	Role	Server Group	Network Element	Location	Details	sds-mrsvnc-a	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.124 IMI: 169.254.100.11	sds-mrsvnc-b	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.128 IMI: 169.254.100.12	qs-mrsvnc-1	Query Server	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.127 IMI: 169.254.100.13	drdsds-dallasb-a	Network OAM&P	drdsds_dallasb_grp	dr_dallasb	Dallas_TX	XMI: 10.250.55.161 IMI: 169.254.100.14	so-carync-a	System OAM		so_carync	Cary_NC	XMI: 10.240.39.150 IMI: 10.240.38.78
Hostname	Role	Server Group	Network Element	Location	Details																																	
sds-mrsvnc-a	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.124 IMI: 169.254.100.11																																	
sds-mrsvnc-b	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.128 IMI: 169.254.100.12																																	
qs-mrsvnc-1	Query Server	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.127 IMI: 169.254.100.13																																	
drdsds-dallasb-a	Network OAM&P	drdsds_dallasb_grp	dr_dallasb	Dallas_TX	XMI: 10.250.55.161 IMI: 169.254.100.14																																	
so-carync-a	System OAM		so_carync	Cary_NC	XMI: 10.240.39.150 IMI: 10.240.38.78																																	
<p>47.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Use the cursor to select the new SOAM server entry added in the Step 35.</p> <p>The row containing the server should now be highlighted.</p>	 <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>Server Group</th> <th>Network Element</th> <th>Location</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>sds-mrsvnc-a</td> <td>Network OAM&amp;P</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.124 IMI: 169.254.100.11</td> </tr> <tr> <td>sds-mrsvnc-b</td> <td>Network OAM&amp;P</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.128 IMI: 169.254.100.12</td> </tr> <tr> <td>qs-mrsvnc-1</td> <td>Query Server</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.127 IMI: 169.254.100.13</td> </tr> <tr> <td>drdsds-dallasb-a</td> <td>Network OAM&amp;P</td> <td>drdsds_dallasb_grp</td> <td>dr_dallasb</td> <td>Dallas_TX</td> <td>XMI: 10.250.55.161 IMI: 169.254.100.14</td> </tr> <tr> <td>so-carync-a</td> <td>System OAM</td> <td></td> <td>so_carync</td> <td>Cary_NC</td> <td>XMI: 10.240.39.150 IMI: 10.240.38.78</td> </tr> </tbody> </table>	Hostname	Role	Server Group	Network Element	Location	Details	sds-mrsvnc-a	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.124 IMI: 169.254.100.11	sds-mrsvnc-b	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.128 IMI: 169.254.100.12	qs-mrsvnc-1	Query Server	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.127 IMI: 169.254.100.13	drdsds-dallasb-a	Network OAM&P	drdsds_dallasb_grp	dr_dallasb	Dallas_TX	XMI: 10.250.55.161 IMI: 169.254.100.14	so-carync-a	System OAM		so_carync	Cary_NC	XMI: 10.240.39.150 IMI: 10.240.38.78
Hostname	Role	Server Group	Network Element	Location	Details																																	
sds-mrsvnc-a	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.124 IMI: 169.254.100.11																																	
sds-mrsvnc-b	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.128 IMI: 169.254.100.12																																	
qs-mrsvnc-1	Query Server	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.127 IMI: 169.254.100.13																																	
drdsds-dallasb-a	Network OAM&P	drdsds_dallasb_grp	dr_dallasb	Dallas_TX	XMI: 10.250.55.161 IMI: 169.254.100.14																																	
so-carync-a	System OAM		so_carync	Cary_NC	XMI: 10.240.39.150 IMI: 10.240.38.78																																	
<p>48.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Select the “Export” dialogue button (bottom left corner of screen).</p>	 <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>Server Group</th> <th>Network Element</th> <th>Location</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>so-carync-a</td> <td>System OAM</td> <td></td> <td>so_carync</td> <td>Cary_NC</td> <td>XMI: 10.240.39.150 IMI: 10.240.38.78</td> </tr> </tbody> </table> <p>Buttons: Insert, Delete, Export, Report</p> <p>Pause updates</p>	Hostname	Role	Server Group	Network Element	Location	Details	so-carync-a	System OAM		so_carync	Cary_NC	XMI: 10.240.39.150 IMI: 10.240.38.78																								
Hostname	Role	Server Group	Network Element	Location	Details																																	
so-carync-a	System OAM		so_carync	Cary_NC	XMI: 10.240.39.150 IMI: 10.240.38.78																																	

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

Step	Procedure	Result
<p>49.</p> <input type="checkbox"/>	<p>Configure the <b>SDS SOAM B</b> server.</p>	<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>
<p>50.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b> Click the “Logout” link on the SDS server GUI.</p>	
<p>51.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b> 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>
<p>52.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b> Log into the server as the <b>admusr</b></p>	<pre>login: admusr Password: &lt;admusr_password&gt;</pre>
<p>53.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b> Change directory into the file management space.</p>	<pre>\$ cd /var/TKLC/db/filemgmt</pre>
<p>54.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b> Get a directory listing and find the configuration files with the SOAM server A and B name as shown in <b>red</b>.  Note: These should appear toward the bottom of the listing.</p>	<pre>\$ ls -ltr TKLCConfigData*.sh  *** TRUNCATED OUTPUT *** -rw-rw-rw- 1 root root 2208 Dec 19 16:37 TKLCConfigData.so-carync-a.sh -rw-rw-rw- 1 root root 2208 Dec 19 16:50 TKLCConfigData.so-carync-b.sh</pre>
<p>55.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b> Copy the configuration files found in the previous step to the PMAC.</p>	<pre>\$ scp -p &lt;configuration_file-a&gt; &lt;configuration_file-b&gt; admusr@&lt;PMAC_Mgmt_IP&gt;:/tmp/ root@10.240.39.4's password: TKLCConfigData.so-carync-a.sh      100% 1741    1.7KB/s   00:00 TKLCConfigData.so-carync-b.sh      100% 1741    1.7KB/s   00:00 [root@sds-mrsvnc-a filemgmt]#</pre>

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

Step	Procedure	Result
56.	<p><b>Primary SDS VIP:</b> Logout of the Primary SDS CLI.</p>	<pre>\$ exit</pre>
57.	<p><b>PMAC Server CLI:</b> Use <b>SSH</b> to login to the <b>PMAC Guest VM</b> server as the <b>admusr</b>.</p>	<pre>login: admusr Password: &lt;admusr_password&gt;</pre>
58.	<p><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.</p>	<pre>\$ scp -p /tmp/&lt;configuration_file&gt; admusr@&lt;SOAM_Control_IP&gt;:/var/TKLC/db/filemgmt root@192.168.1.199's password: TKLCConfigData.so-carync-a.sh          100% 1741    1.7KB/s   00:00</pre>
59.	<p><b>PMAC Guest VM:</b> Connect to the SOAM server console from the PMAC Server Console</p>	<pre>\$ ssh &lt;OAM_Control_IP&gt; admusr@192.168.1.199's password: &lt;admusr_password&gt;</pre>
60.	<p><b>SOAM Guest VM:</b> Copy the server configuration file to the “<b>/var/tmp</b>” directory on the server, making sure to rename the file by omitting the server hostname (shown in <b>red</b>) from the file name.</p>	<p><b>Example:</b> TKLCConfigData&lt;.server_hostname&gt;.sh → will translate to →TKLCConfigData.sh</p> <pre>\$ cp -p /var/TKLC/db/filemgmt/TKLCConfigData.so-carync-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>

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

Step	Procedure	Result
<p>61.</p> <input type="checkbox"/>	<p><b>SOAM Guest VM:</b></p> <p>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 root (Mon Dec 14 15:47:33 2009):</p> <p>Server configuration completed successfully!</p> <p>See /var/TKLC/appw/logs/Process/install.log for details.</p> <p>Please remove the USB flash drive if connected and reboot the server.</p> <p>&lt;ENTER&gt;</p>
<p>62.</p> <input type="checkbox"/>	<p><b>SOAM Guest VM:</b></p> <p>Accept upgrade to the Application Software.</p>	<pre>\$ sudo /var/TKLC/backout/accept Called with options: --accept Loading Upgrade::Backout::RPM Accepting Upgrade Setting POST_UPGRADE_ACTION to ACCEPT in upgrade info. Cleaning backout directory. Clearing Upgrade Accept/Reject alarm. Cleaning message from MOTD. Cleaning up RPM config backup files... Checking / Checking /boot Checking /tmp Checking /usr Checking /var Checking /var/TKLC Checking /tmp/appworks_temp Checking /var/TKLC/appw/logs/Process Checking /var/TKLC/appw/logs/Security Checking /var/TKLC/db/filemgmt Checking /var/TKLC/rundb Starting cleanup of RCS repository. INFO: Removing '/var/lib/prelink/force' from RCS repository INFO: Removing '/etc/my.cnf' from RCS repository</pre>
<p>63.</p>	<p><b>SOAM Guest VM:</b></p> <p>Verify that the desired Time Zone is currently in use.</p>	<pre>\$ date Mon Aug 10 19:34:51 UTC 2015</pre>

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

Step	Procedure	Result
<p>64.</p> <input type="checkbox"/>	<p><b>SOAM Guest VM:</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><i>Example:</i> <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 H</b> for a list of valid time zones.</i></p> <pre>\$ sudo set_ini_tz.pl "Etc/UTC"</pre>
<p>65.</p> <input type="checkbox"/>	<p><b>SOAM Guest VM:</b></p> <p>Initiate a reboot of the OAM server.</p>	<pre>\$ sudo init 6</pre>
<p>66.</p> <input type="checkbox"/>	<p><b>SOAM Guest VM:</b></p> <p>Output similar to that shown on the right may be observed as the server initiates a reboot.</p>	<pre>Connection to 192.168.1.199 closed by remote host. Connection to 192.168.1.199 closed.</pre>
<p>67.</p> <input type="checkbox"/>	<p><b>PMAC Guest VM:</b></p> <p>After the SOAM server has completed reboot, re-connect to the SOAM server console from the PMAC Server Console</p>	<pre>\$ ssh &lt;SOAM_Control_IP&gt; admusr@192.168.1.199's password: &lt;admusr_password&gt;</pre>
<p>68.</p> <input type="checkbox"/>	<p><b>SOAM Guest VM:</b></p> <p><b>1) Verify that the IMI IP address</b> input in <b>Step 41</b> has been applied as specified.</p> <p><b>2) Verify that the XMI IP address</b> input in <b>Step 41</b> has been applied as specified.</p>	<pre>\$ ifconfig  grep in control  Link encap:Ethernet  HWaddr 52:54:00:23:DC:32          inet addr:192.168.1.199  Bcast:192.168.1.255  Mask:255.255.255.0 imi      Link encap:Ethernet  HWaddr 52:54:00:33:DC:DC          inet addr:10.240.38.78  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>

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

Step	Procedure	Result
69.	<p><b>SOAM Guest VM:</b></p> <p>Execute a <b>“syscheck”</b> to verify the current health of the server.</p>	<pre>\$ sudo syscheck Running modules in class hardware...                                 OK Running modules in class disk...                                 OK Running modules in class net...                                 OK Running modules in class system...                                 OK Running modules in class proc...                                 OK LOG LOCATION: /var/TKLC/log/syscheck/fail_log</pre>
70.	<p>Apply the <b>SDS SOAM B</b> server configuration file.</p>	<ul style="list-style-type: none"> <li>• <b>Repeat Steps 57 - 69 this procedure for SOAM Server B.</b></li> </ul>
71.	<p><b>SOAM Guest B:</b></p> <p>From the <b>SOAM-B</b> Guest, <b>“ping”</b> the <b>IMI IP address</b> of the <b>SOAM-A</b> Guest</p>	<pre>\$ ping -c 5 10.240.38.78 PING 10.240.38.78 (10.240.38.78) 56(84) bytes of data. 64 bytes from 10.240.38.78: icmp_seq=1 ttl=64 time=0.031 ms 64 bytes from 10.240.38.78: icmp_seq=2 ttl=64 time=0.017 ms 64 bytes from 10.240.38.78: icmp_seq=3 ttl=64 time=0.031 ms 64 bytes from 10.240.38.78: icmp_seq=4 ttl=64 time=0.028 ms 64 bytes from 10.240.38.78: icmp_seq=5 ttl=64 time=0.030 ms 64 bytes from 10.240.38.78: icmp_seq=6 ttl=64 time=0.028 ms  --- 10.240.38.78 ping statistics --- 6 packets transmitted, 6 received, 0% packet loss, time 5000ms rtt min/avg/max/mdev = 0.017/0.027/0.031/0.007 ms</pre>
72.	<p><b>SOAM Guest B:</b></p> <p>From the <b>SOAM-B</b> Guest, <b>“ping”</b> the <b>XMI IP address</b> of the <b>SOAM-A</b> Guest</p>	<pre>\$ ping -c 5 10.240.39.150 PING 10.240.39.150 (10.240.39.150) 56(84) bytes of data. 64 bytes from 10.240.39.150: icmp_seq=1 ttl=64 time=0.024 ms 64 bytes from 10.240.39.150: icmp_seq=2 ttl=64 time=0.033 ms 64 bytes from 10.240.39.150: icmp_seq=3 ttl=64 time=0.032 ms 64 bytes from 10.240.39.150: icmp_seq=4 ttl=64 time=0.026 ms 64 bytes from 10.240.39.150: icmp_seq=5 ttl=64 time=0.027 ms 64 bytes from 10.240.39.150: icmp_seq=6 ttl=64 time=0.026 ms  --- 10.240.39.150 ping statistics --- 6 packets transmitted, 6 received, 0% packet loss, time 5004ms rtt min/avg/max/mdev = 0.024/0.028/0.033/0.003 ms</pre>

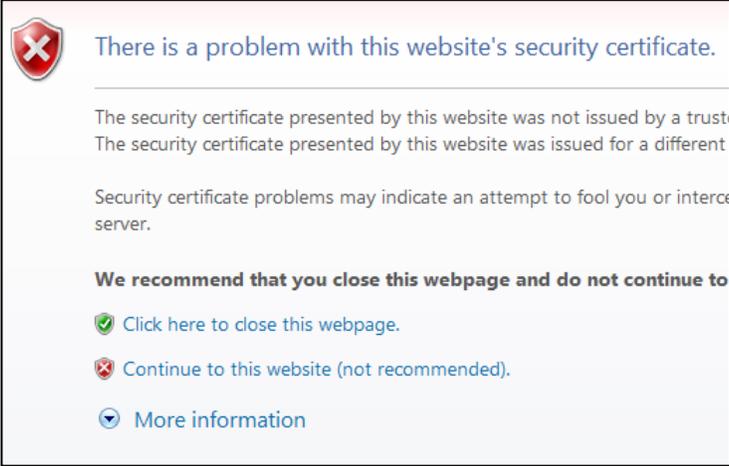
**Procedure 8:** Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<p>73.</p> <input type="checkbox"/>	<p><b>SOAM Guest B:</b></p> <p>From the <b>SOAM-B</b> Guest, “ping” the local <b>XMI Gateway address</b> associated with the SOAM NE.</p>	<pre>\$ ping -c 5 10.240.39.1 PING 10.240.39.1 (10.240.39.1) 56(84) bytes of data. 64 bytes from 10.240.39.1: icmp_seq=1 ttl=64 time=0.024 ms 64 bytes from 10.240.39.1: icmp_seq=2 ttl=64 time=0.033 ms 64 bytes from 10.240.39.1: icmp_seq=3 ttl=64 time=0.032 ms 64 bytes from 10.240.39.1: icmp_seq=4 ttl=64 time=0.026 ms 64 bytes from 10.240.39.1: icmp_seq=5 ttl=64 time=0.027 ms 64 bytes from 10.240.39.1: icmp_seq=6 ttl=64 time=0.026 ms  --- 10.240.39.1 ping statistics --- 6 packets transmitted, 6 received, 0% packet loss, time 5004ms rtt min/avg/max/mdev = 0.024/0.028/0.033/0.003 ms</pre>
<p>74.</p> <input type="checkbox"/>	<p><b>SOAM Guest VM:</b></p> <p>Use the “ntpq” command to verify that the server has connectivity to the assigned Primary and Secondary NTP server(s).</p>	<pre>\$ ntpq -np       remote           refid      st t when poll reach  delay  offset  jitter ===== +10.250.32.10    192.5.41.209    2 u  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>
<div style="display: flex; align-items: center;">  <div> <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) 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> <p><b>ONCE NETWORK CONNECTIVITY IS ESTABLISHED TO THE ASSIGNED NTP IP ADDRESSES, THEN RESTART THIS PROCEDURE BEGINNING WITH STEP 74.</b></p> </div> </div>		
<p>75.</p> <input type="checkbox"/>	<p><b>SOAM Guest VM:</b></p> <p>Exit from the SOAM command line to return the PMAC server console prompt.</p>	<pre>\$ exit</pre>
<p>76.</p> <input type="checkbox"/>	<p><b>PMAC Guest VM:</b></p> <p>Exit from the PMAC server</p>	<pre>\$ exit</pre>
<p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>		

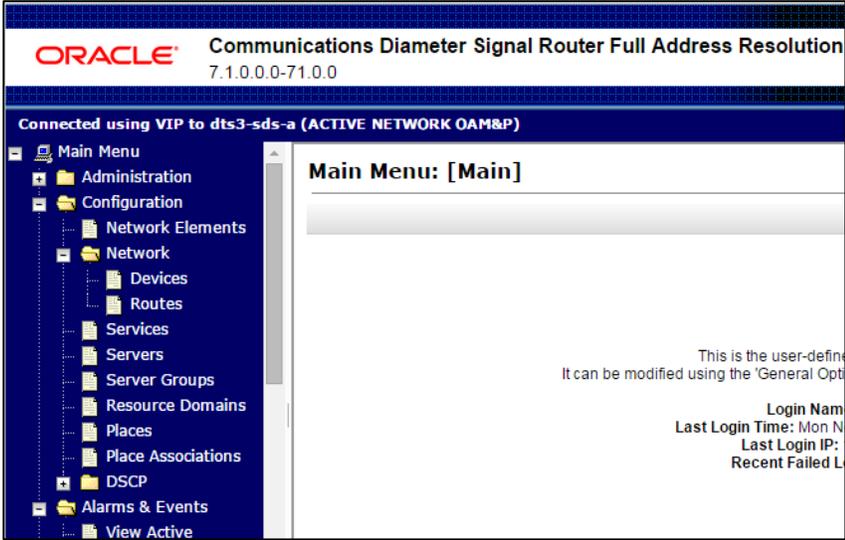
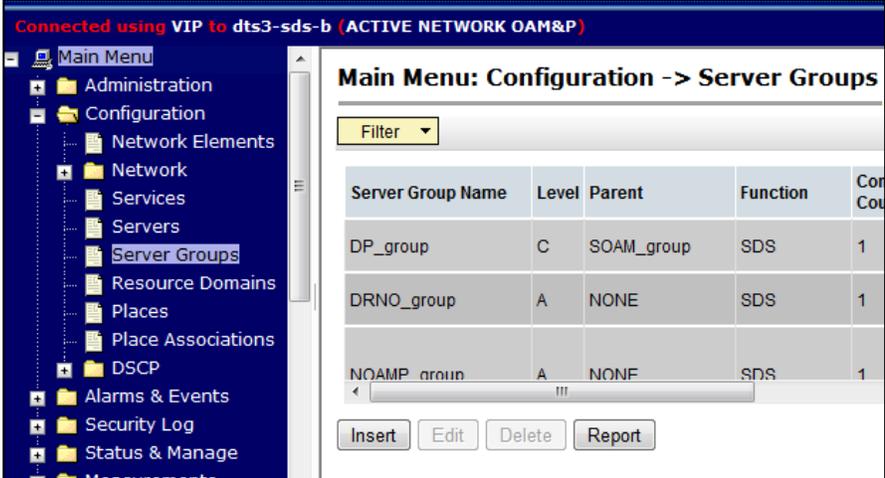
## 5.8 OAM Pairing for SDS SOAM sites (All SOAM sites)

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

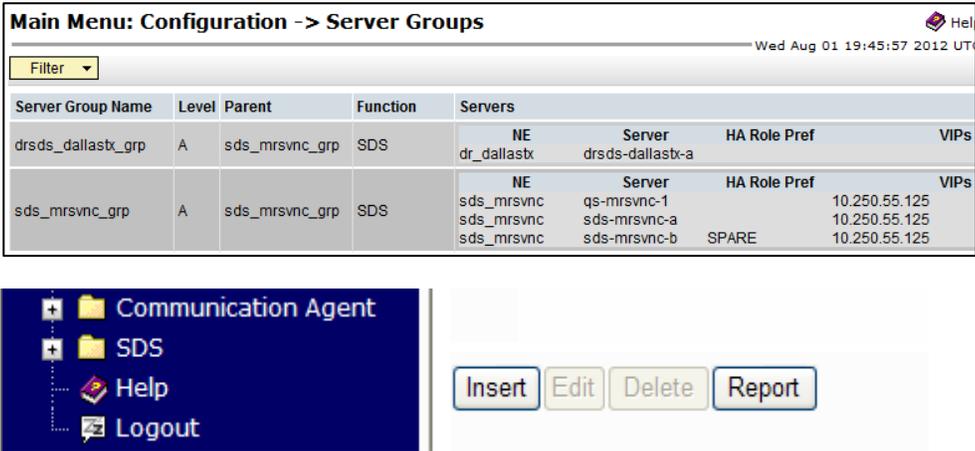
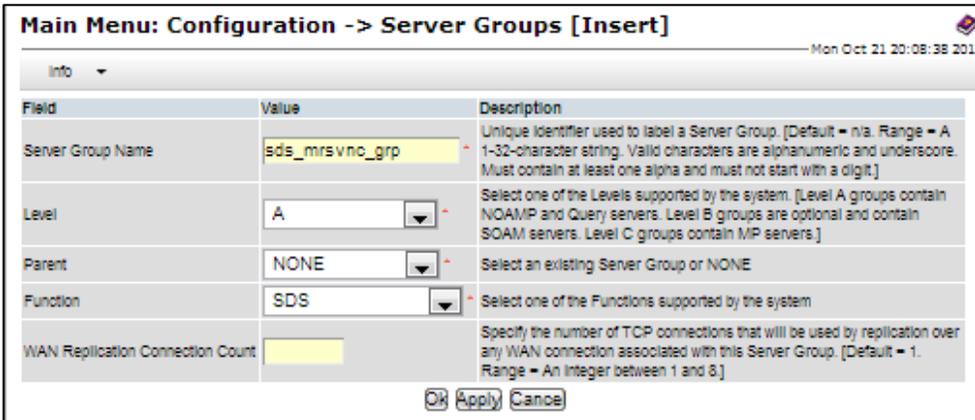
### Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<p>1.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b></p> <p>Launch an approved web browser and connect to the SDS VIP address</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>2.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</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>	

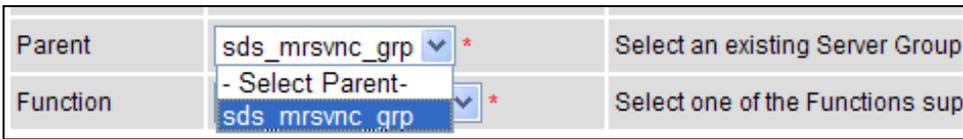
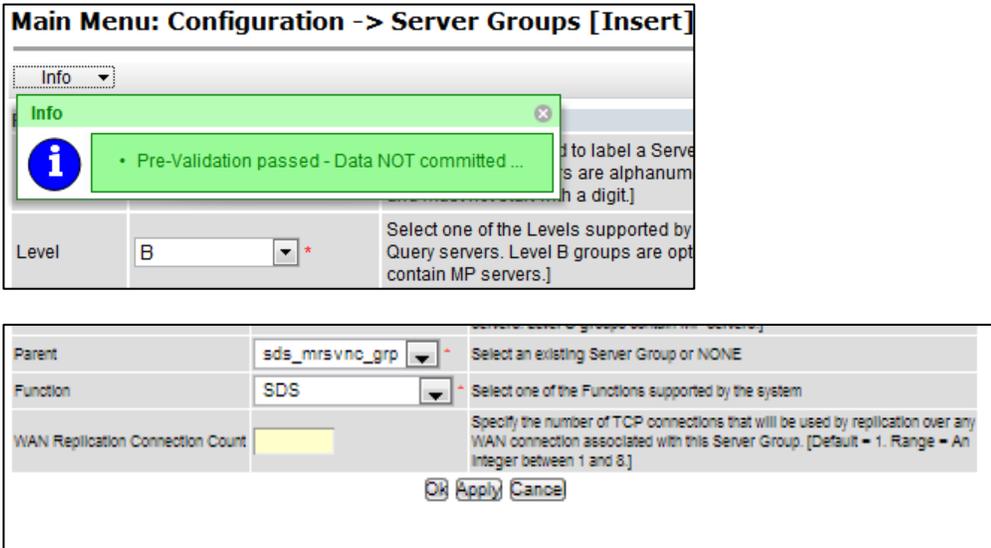
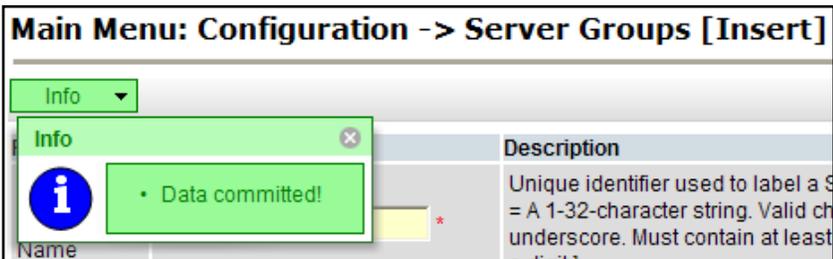
**Procedure 9:** Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<p>3.</p> <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>4.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b>                  → <b>Configuration</b>                  → <b>Server Groups</b></p> <p>...as shown on the right.</p>	

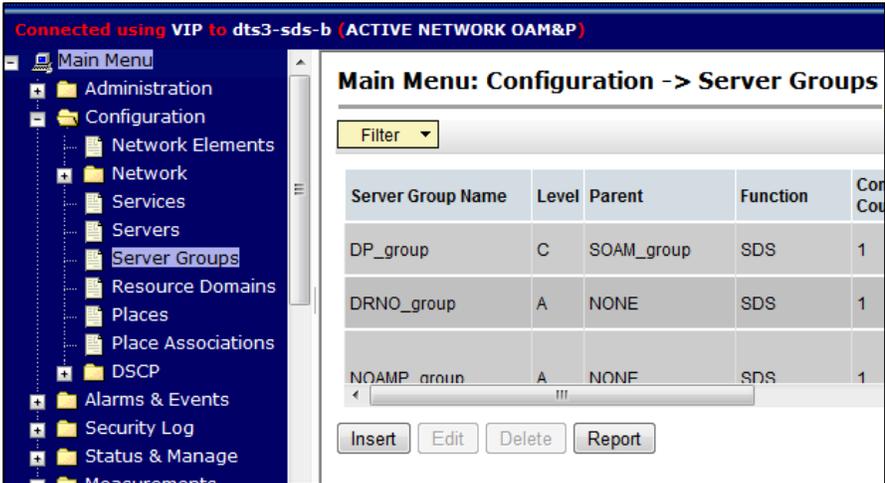
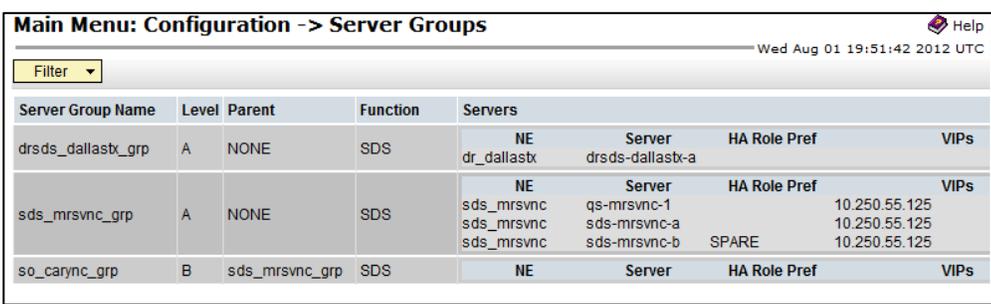
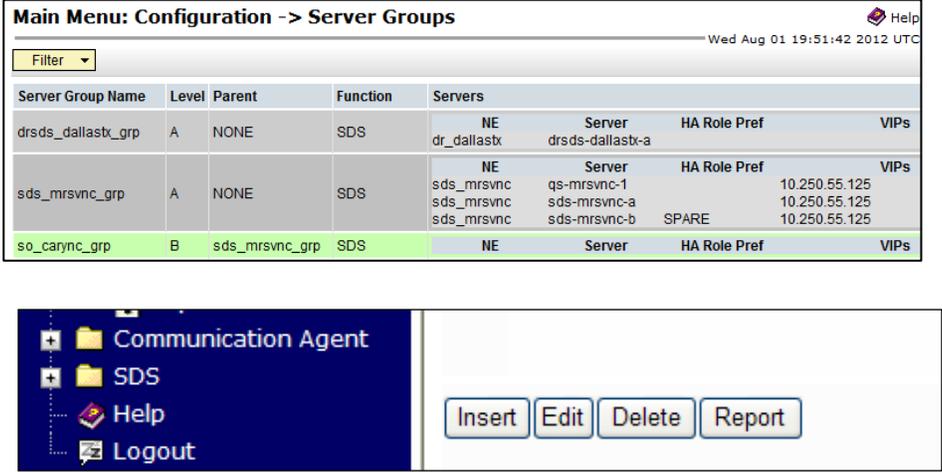
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result																					
<p>5.</p> <p><input type="checkbox"/></p>	<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> The user may need to use the vertical scroll-bar in order to make the “<b>Insert</b>” dialogue button visible.</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>Servers</th> <th>HA Role Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>drdsds_dallastx_grp</td> <td>A</td> <td>sds_mrsvnc_grp</td> <td>SDS</td> <td>NE dr_dallastx</td> <td>Server drdsds-dallastx-a</td> <td></td> </tr> <tr> <td>sds_mrsvnc_grp</td> <td>A</td> <td>sds_mrsvnc_grp</td> <td>SDS</td> <td>NE sds_mrsvnc sds_mrsvnc sds_mrsvnc</td> <td>Server qs-mrsvnc-1 sds-mrsvnc-a sds-mrsvnc-b</td> <td>HA Role Pref 10.250.55.125 10.250.55.125 SPARE 10.250.55.125</td> </tr> </tbody> </table> <p>Navigation: Communication Agent, SDS, Help, Logout</p> <p>Buttons: Insert, Edit, Delete, Report</p>	Server Group Name	Level	Parent	Function	Servers	HA Role Pref	VIPs	drdsds_dallastx_grp	A	sds_mrsvnc_grp	SDS	NE dr_dallastx	Server drdsds-dallastx-a		sds_mrsvnc_grp	A	sds_mrsvnc_grp	SDS	NE sds_mrsvnc sds_mrsvnc sds_mrsvnc	Server qs-mrsvnc-1 sds-mrsvnc-a sds-mrsvnc-b	HA Role Pref 10.250.55.125 10.250.55.125 SPARE 10.250.55.125
Server Group Name	Level	Parent	Function	Servers	HA Role Pref	VIPs																	
drdsds_dallastx_grp	A	sds_mrsvnc_grp	SDS	NE dr_dallastx	Server drdsds-dallastx-a																		
sds_mrsvnc_grp	A	sds_mrsvnc_grp	SDS	NE sds_mrsvnc sds_mrsvnc sds_mrsvnc	Server qs-mrsvnc-1 sds-mrsvnc-a sds-mrsvnc-b	HA Role Pref 10.250.55.125 10.250.55.125 SPARE 10.250.55.125																	
<p>6.</p> <p><input type="checkbox"/></p>	<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>	 <p><b>Main Menu: Configuration -&gt; Server Groups [Insert]</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_mrsvnc_grp</td> <td>Unique Identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.]</td> </tr> <tr> <td>Level</td> <td>A</td> <td>Select one of the Levels supported by the system. [Level A groups contain NOAMP and Query servers. Level B groups are optional and contain SOAM servers. Level C groups contain MP servers.]</td> </tr> <tr> <td>Parent</td> <td>NONE</td> <td>Select an existing Server Group or NONE</td> </tr> <tr> <td>Function</td> <td>SDS</td> <td>Select one of the Functions supported by the system</td> </tr> <tr> <td>WAN Replication Connection Count</td> <td></td> <td>Specify the number of TCP connections that will be used by replication over any WAN connection associated with this Server Group. [Default = 1. Range = An Integer between 1 and 8.]</td> </tr> </tbody> </table> <p>Buttons: OK, Apply, Cancel</p>	Field	Value	Description	Server Group Name	sds_mrsvnc_grp	Unique Identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.]	Level	A	Select one of the Levels supported by the system. [Level A groups contain NOAMP and Query servers. Level B groups are optional and contain SOAM servers. Level C groups contain MP servers.]	Parent	NONE	Select an existing Server Group or NONE	Function	SDS	Select one of the Functions supported by the system	WAN Replication Connection Count		Specify the number of TCP connections that will be used by replication over any WAN connection associated with this Server Group. [Default = 1. Range = An Integer between 1 and 8.]			
Field	Value	Description																					
Server Group Name	sds_mrsvnc_grp	Unique Identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.]																					
Level	A	Select one of the Levels supported by the system. [Level A groups contain NOAMP and Query servers. Level B groups are optional and contain SOAM servers. Level C groups contain MP servers.]																					
Parent	NONE	Select an existing Server Group or NONE																					
Function	SDS	Select one of the Functions supported by the system																					
WAN Replication Connection Count		Specify the number of TCP connections that will be used by replication over any WAN connection associated with this Server Group. [Default = 1. Range = An Integer between 1 and 8.]																					
<p>7.</p> <p><input type="checkbox"/></p>	<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>so_carync_grp</td> <td>Unique identifier used to label a Server Group string. Valid characters are alphanumeric and alpha and must not start with a digit.]</td> </tr> </tbody> </table>	Field	Value	Description	Server Group Name	so_carync_grp	Unique identifier used to label a Server Group string. Valid characters are alphanumeric and alpha and must not start with a digit.]															
Field	Value	Description																					
Server Group Name	so_carync_grp	Unique identifier used to label a Server Group string. Valid characters are alphanumeric and alpha and must not start with a digit.]																					
<p>8.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Select “<b>B</b>” on the “<b>Level</b>” pull-down menu...</p>	<table border="1"> <tbody> <tr> <td>Level</td> <td>- Select Level -</td> <td>Select one of the Levels supported by the servers. Level B groups are optional and servers.]</td> </tr> <tr> <td>Parent</td> <td>B</td> <td>Select an existing Server Group or NONE</td> </tr> </tbody> </table>	Level	- Select Level -	Select one of the Levels supported by the servers. Level B groups are optional and servers.]	Parent	B	Select an existing Server Group or NONE															
Level	- Select Level -	Select one of the Levels supported by the servers. Level B groups are optional and servers.]																					
Parent	B	Select an existing Server Group or NONE																					

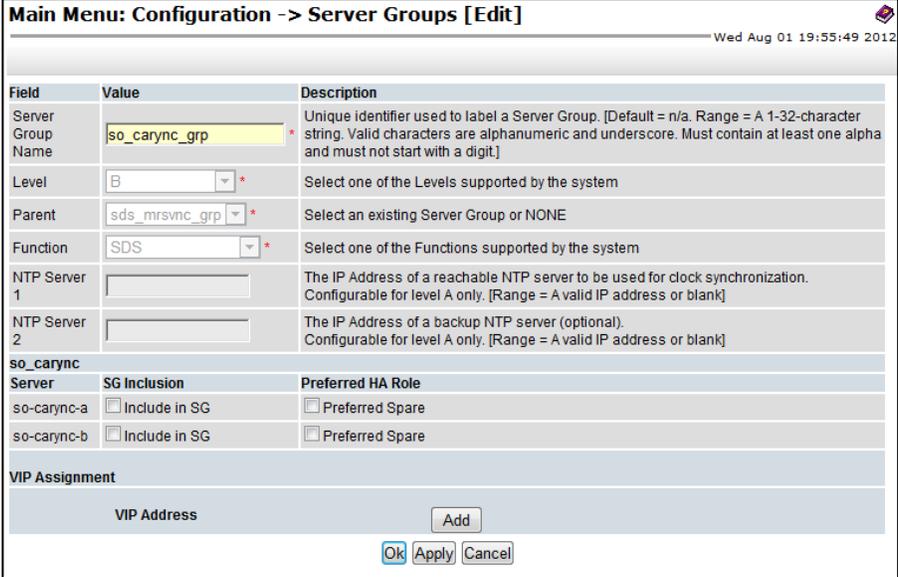
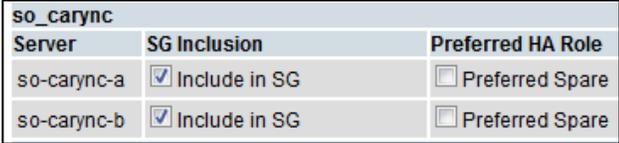
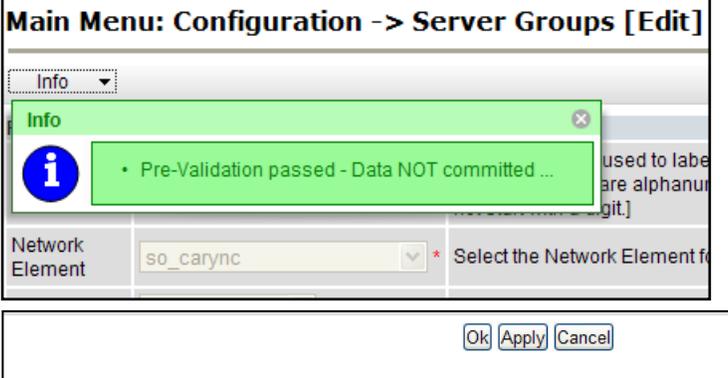
**Procedure 9:** Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<p>10.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b></p> <p>Select the 1<sup>st</sup> SDS Site's server group, as entered in <b>Procedure 6, Step 7</b>, on the "Parent" pull-down menu...</p>	
<p>11.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b></p> <p>Select "SDS" on the "Function" pull-down menu.</p>	
<p>12.</p> <input type="checkbox"/>	<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) Select the "Apply" dialogue button.</p>	
<p>13.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b></p> <p>The user should be presented with a banner information message stating "Data committed".</p>	

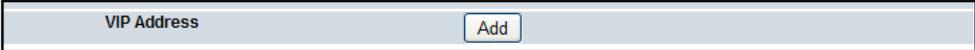
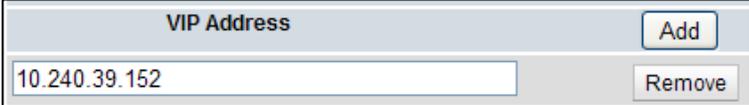
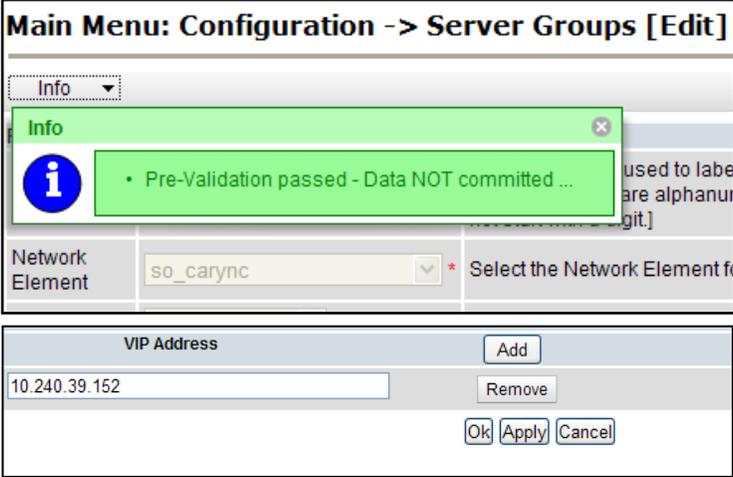
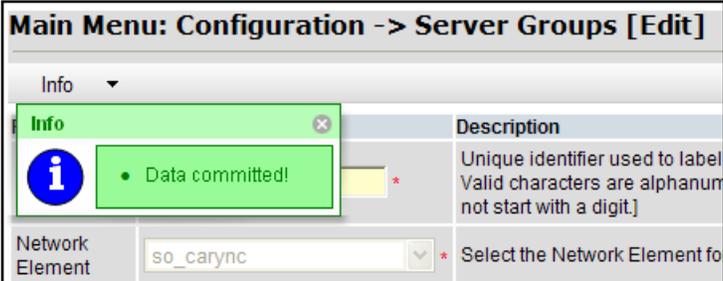
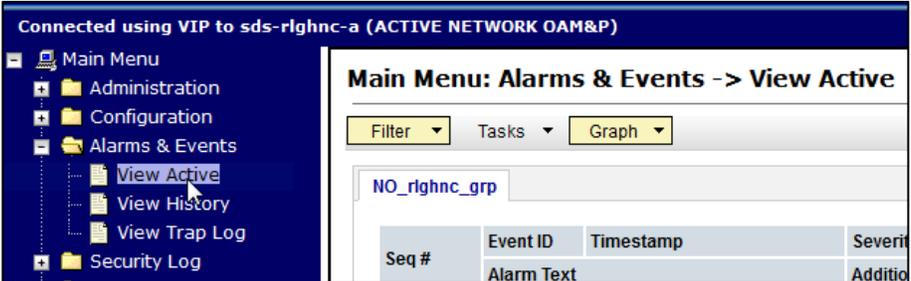
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result																				
<p>14.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b>                      → Configuration                      → Server Groups</p> <p>...as shown on the right.</p>																					
<p>15.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>The <b>Server Group</b> entry should be shown on the “<b>Server Groups</b>” configuration screen as shown on the right.</p>	 <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Servers</th> </tr> </thead> <tbody> <tr> <td>drsds_dallastx_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>NE dr_dallastx, Server drsds-dallastx-a, HA Role Pref, VIPs</td> </tr> <tr style="background-color: #e0ffe0;"> <td>sds_mrsvnc_grp</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>NE sds_mrsvnc, Server qs-mrsvnc-1, HA Role Pref, VIPs 10.250.55.125; sds_mrsvnc, sds-mrsvnc-a, 10.250.55.125; sds_mrsvnc, sds-mrsvnc-b, SPARE, 10.250.55.125</td> </tr> <tr> <td>so_carync_grp</td> <td>B</td> <td>sds_mrsvnc_grp</td> <td>SDS</td> <td>NE Server, HA Role Pref, VIPs</td> </tr> </tbody> </table>	Server Group Name	Level	Parent	Function	Servers	drsds_dallastx_grp	A	NONE	SDS	NE dr_dallastx, Server drsds-dallastx-a, HA Role Pref, VIPs	sds_mrsvnc_grp	A	NONE	SDS	NE sds_mrsvnc, Server qs-mrsvnc-1, HA Role Pref, VIPs 10.250.55.125; sds_mrsvnc, sds-mrsvnc-a, 10.250.55.125; sds_mrsvnc, sds-mrsvnc-b, SPARE, 10.250.55.125	so_carync_grp	B	sds_mrsvnc_grp	SDS	NE Server, HA Role Pref, VIPs
Server Group Name	Level	Parent	Function	Servers																		
drsds_dallastx_grp	A	NONE	SDS	NE dr_dallastx, Server drsds-dallastx-a, HA Role Pref, VIPs																		
sds_mrsvnc_grp	A	NONE	SDS	NE sds_mrsvnc, Server qs-mrsvnc-1, HA Role Pref, VIPs 10.250.55.125; sds_mrsvnc, sds-mrsvnc-a, 10.250.55.125; sds_mrsvnc, sds-mrsvnc-b, SPARE, 10.250.55.125																		
so_carync_grp	B	sds_mrsvnc_grp	SDS	NE Server, HA Role Pref, VIPs																		
<p>16.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>1) Select the <b>Server Group</b> entry applied in <b>Step 13</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>NOTE:</b> The user may need to use the vertical scroll-bar in order to make the “<b>Edit</b>” dialogue button visible.</p>																					

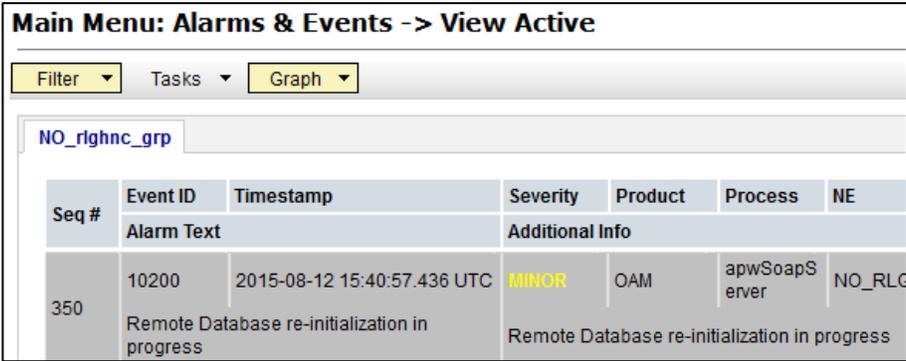
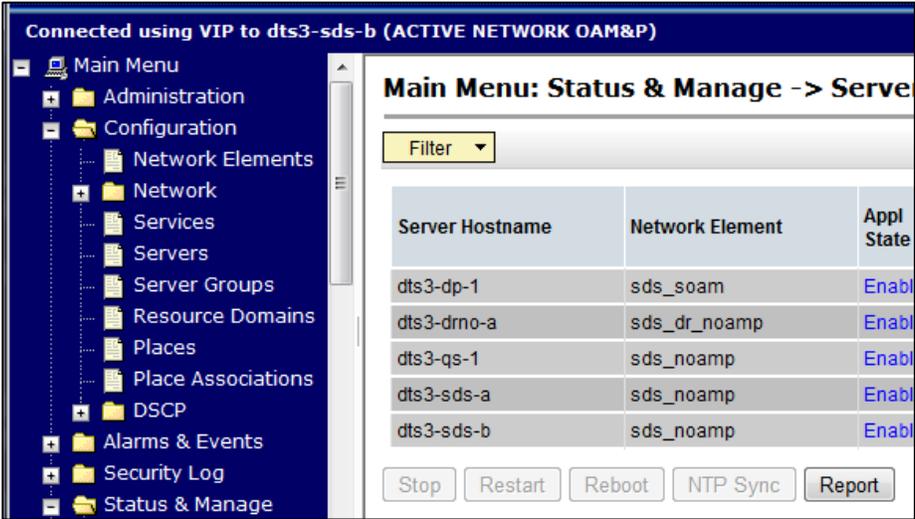
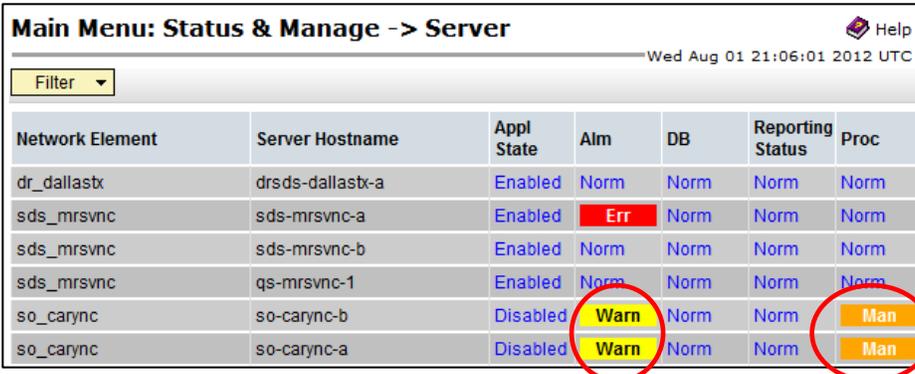
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<p>17.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>The user will be presented with the “<b>Server Groups [Edit]</b>” screen as shown on the right.</p>	
<p>18.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>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>	
<p>19.</p> <p><input type="checkbox"/></p>	<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>20.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>The user should be presented with a banner information message stating “<b>Data committed</b>”.</p>	

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

Step	Procedure	Result
21. <input type="checkbox"/>	<b>Primary SDS VIP:</b> Click the “ <b>Add</b> ” dialogue button for the <b>VIP Address</b> .	
22. <input type="checkbox"/>	<b>Primary SDS VIP:</b> Input the <b>VIP Address</b>	
23. <input type="checkbox"/>	<b>Primary SDS VIP:</b> Click the “ <b>Apply</b> ” dialogue button.	
24. <input type="checkbox"/>	<b>Primary SDS VIP:</b> 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.	
25. <input type="checkbox"/>	<b>Primary SDS VIP:</b> The user should be presented with a banner information message stating “ <b>Data committed</b> ”.	
26. <input type="checkbox"/>	<b>Primary SDS VIP:</b> Select...  <b>Main Menu</b> → <b>Alarms &amp; Events</b> → <b>View Active</b>  ...as shown on the right.	

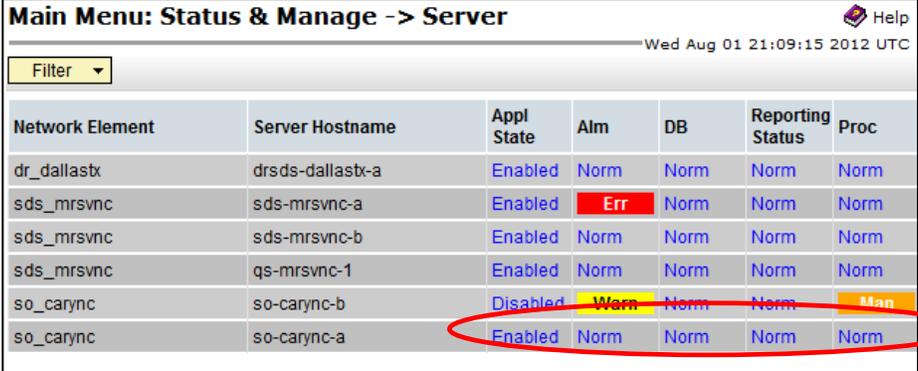
**Procedure 9:** Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
27.	<p><b>Primary SDS VIP:</b></p> <p>Verify that <b>Event ID 10200</b> (<i>Remote Database re-initialization in progress</i>) alarms are present with the <b>SDS SOAM Server hostnames</b> in the “Instance” field..</p>	
 <p><b>MONITOR THE EVENT ID 10200 (<i>Remote Database re-initialization in progress</i>) ALARMS.</b></p> <p><b>DO NOT PROCEED TO THE NEXT STEP UNTIL THE ALARM CLEAR IS RECEIVED FOR BOTH DR SDS SOAM SERVERS.</b></p>		
28.	<p><b>Primary 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>	
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>	

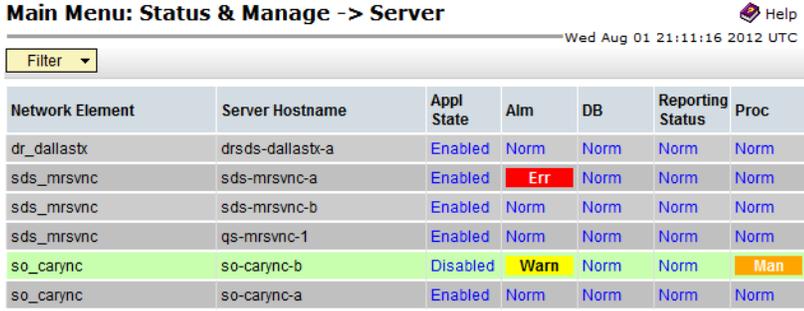
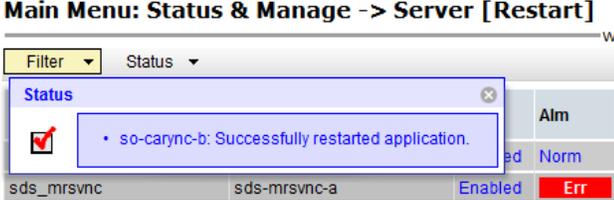
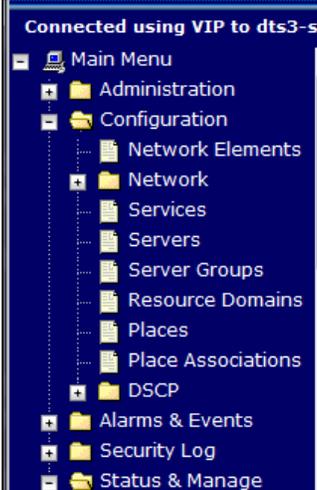
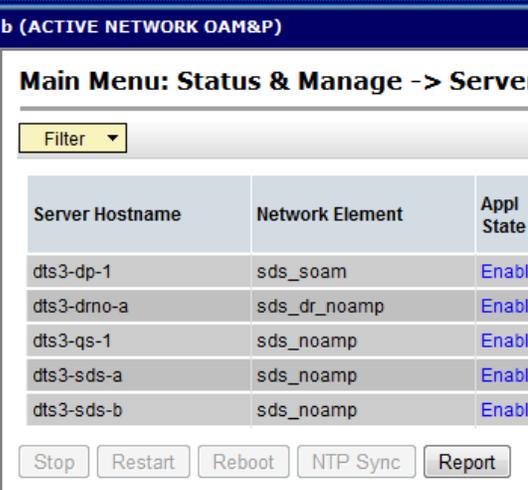
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<p>30.</p> <p><input type="checkbox"/></p>	<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>31.</p> <p><input type="checkbox"/></p>	<p><b>Primary 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>	

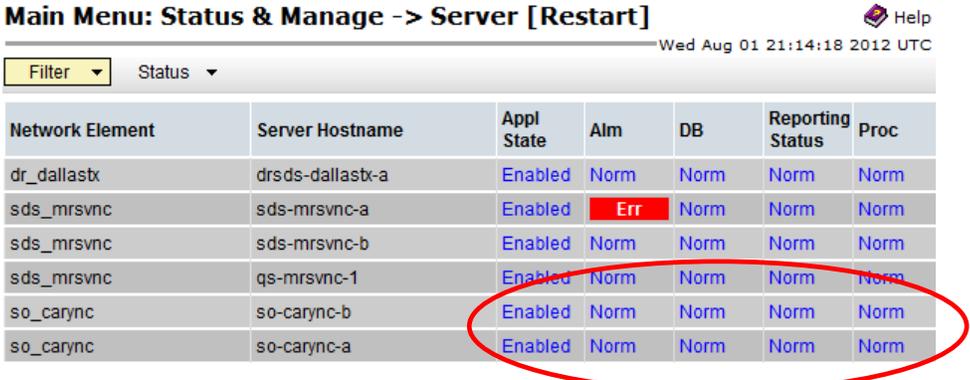
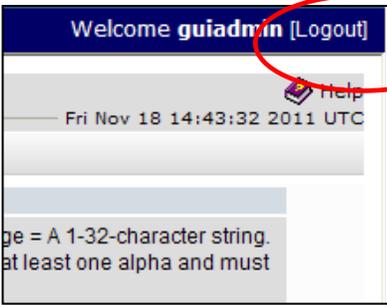
**Procedure 9:** Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result																																																	
<p>32.</p> <p><input type="checkbox"/></p>	<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>OAM Server A</b> before proceeding to the next Step.</p> <p><b>NOTE:</b> <i>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 “<b>Status &amp; Manage</b> → <b>Server</b>” option from the Main menu on the left.</i></p>	 <table border="1"> <thead> <tr> <th>Network Element</th> <th>Server Hostname</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>dr_dallastx</td> <td>drsds-dallastx-a</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-a</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-b</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>qs-mrsvnc-1</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>so_carync</td> <td>so-carync-b</td> <td>Disabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>so_carync</td> <td>so-carync-a</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table>	Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc	dr_dallastx	drsds-dallastx-a	Enabled	Norm	Norm	Norm	Norm	sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm	sds_mrsvnc	sds-mrsvnc-b	Enabled	Norm	Norm	Norm	Norm	sds_mrsvnc	qs-mrsvnc-1	Enabled	Norm	Norm	Norm	Norm	so_carync	so-carync-b	Disabled	Warn	Norm	Norm	Man	so_carync	so-carync-a	Enabled	Norm	Norm	Norm	Norm
Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc																																													
dr_dallastx	drsds-dallastx-a	Enabled	Norm	Norm	Norm	Norm																																													
sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm																																													
sds_mrsvnc	sds-mrsvnc-b	Enabled	Norm	Norm	Norm	Norm																																													
sds_mrsvnc	qs-mrsvnc-1	Enabled	Norm	Norm	Norm	Norm																																													
so_carync	so-carync-b	Disabled	Warn	Norm	Norm	Man																																													
so_carync	so-carync-a	Enabled	Norm	Norm	Norm	Norm																																													

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

Step	Procedure	Result																																																	
<p>33.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>1) Using the mouse, select <b>SOAM 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 <b>SOAM Server B</b> stating: <b>“Successfully restarted application”</b>.</p>	<p><b>Main Menu: Status &amp; Manage -&gt; Server</b></p>  <p>Wed Aug 01 21:11:16 2012 UTC</p> <table border="1"> <thead> <tr> <th>Network Element</th> <th>Server Hostname</th> <th>Appl State</th> <th>Aim</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>dr_dallastx</td> <td>drds-dallastx-a</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mvsvnc</td> <td>sds-mvsvnc-a</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mvsvnc</td> <td>sds-mvsvnc-b</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mvsvnc</td> <td>qs-mvsvnc-1</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr style="background-color: #e0ffe0;"> <td>so_carync</td> <td>so-carync-b</td> <td>Disabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>so_carync</td> <td>so-carync-a</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table>   <p><b>Main Menu: Status &amp; Manage -&gt; Server [Restart]</b></p> 	Network Element	Server Hostname	Appl State	Aim	DB	Reporting Status	Proc	dr_dallastx	drds-dallastx-a	Enabled	Norm	Norm	Norm	Norm	sds_mvsvnc	sds-mvsvnc-a	Enabled	Err	Norm	Norm	Norm	sds_mvsvnc	sds-mvsvnc-b	Enabled	Norm	Norm	Norm	Norm	sds_mvsvnc	qs-mvsvnc-1	Enabled	Norm	Norm	Norm	Norm	so_carync	so-carync-b	Disabled	Warn	Norm	Norm	Man	so_carync	so-carync-a	Enabled	Norm	Norm	Norm	Norm
Network Element	Server Hostname	Appl State	Aim	DB	Reporting Status	Proc																																													
dr_dallastx	drds-dallastx-a	Enabled	Norm	Norm	Norm	Norm																																													
sds_mvsvnc	sds-mvsvnc-a	Enabled	Err	Norm	Norm	Norm																																													
sds_mvsvnc	sds-mvsvnc-b	Enabled	Norm	Norm	Norm	Norm																																													
sds_mvsvnc	qs-mvsvnc-1	Enabled	Norm	Norm	Norm	Norm																																													
so_carync	so-carync-b	Disabled	Warn	Norm	Norm	Man																																													
so_carync	so-carync-a	Enabled	Norm	Norm	Norm	Norm																																													
<p>34.</p> <p><input type="checkbox"/></p>	<p><b>Primary 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>	<p>Connected using VIP to dts3-sds-b (ACTIVE NETWORK OAM&amp;P)</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>dts3-dp-1</td> <td>sds_soam</td> <td>Enabl</td> </tr> <tr> <td>dts3-drno-a</td> <td>sds_dr_noamp</td> <td>Enabl</td> </tr> <tr> <td>dts3-qs-1</td> <td>sds_noamp</td> <td>Enabl</td> </tr> <tr> <td>dts3-sds-a</td> <td>sds_noamp</td> <td>Enabl</td> </tr> <tr> <td>dts3-sds-b</td> <td>sds_noamp</td> <td>Enabl</td> </tr> </tbody> </table> <p>Stop Restart Reboot NTP Sync Report</p>	Server Hostname	Network Element	Appl State	dts3-dp-1	sds_soam	Enabl	dts3-drno-a	sds_dr_noamp	Enabl	dts3-qs-1	sds_noamp	Enabl	dts3-sds-a	sds_noamp	Enabl	dts3-sds-b	sds_noamp	Enabl																															
Server Hostname	Network Element	Appl State																																																	
dts3-dp-1	sds_soam	Enabl																																																	
dts3-drno-a	sds_dr_noamp	Enabl																																																	
dts3-qs-1	sds_noamp	Enabl																																																	
dts3-sds-a	sds_noamp	Enabl																																																	
dts3-sds-b	sds_noamp	Enabl																																																	

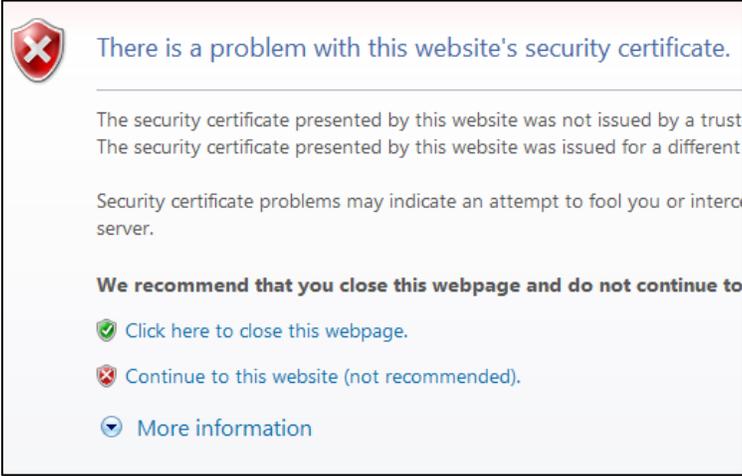
**Procedure 9:** Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result																																																	
<p>35.</p> <p><input type="checkbox"/></p>	<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>OAM Server A</b> and <b>OAM Server B</b> before proceeding to the next Step.</p>	 <p><b>Main Menu: Status &amp; Manage -&gt; Server [Restart]</b> <span style="float: right;">Help</span></p> <p style="text-align: right;">Wed Aug 01 21:14:18 2012 UTC</p> <p>Filter Status</p> <table border="1"> <thead> <tr> <th>Network Element</th> <th>Server Hostname</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>dr_dallastx</td> <td>drdsds-dallastx-a</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-a</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-b</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>qs-mrsvnc-1</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>so_carync</td> <td>so-carync-b</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>so_carync</td> <td>so-carync-a</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table> <p><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 “<b>Status &amp; Manage → Server</b>” option from the Main menu on the left.</p>	Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc	dr_dallastx	drdsds-dallastx-a	Enabled	Norm	Norm	Norm	Norm	sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm	sds_mrsvnc	sds-mrsvnc-b	Enabled	Norm	Norm	Norm	Norm	sds_mrsvnc	qs-mrsvnc-1	Enabled	Norm	Norm	Norm	Norm	so_carync	so-carync-b	Enabled	Norm	Norm	Norm	Norm	so_carync	so-carync-a	Enabled	Norm	Norm	Norm	Norm
Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc																																													
dr_dallastx	drdsds-dallastx-a	Enabled	Norm	Norm	Norm	Norm																																													
sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm																																													
sds_mrsvnc	sds-mrsvnc-b	Enabled	Norm	Norm	Norm	Norm																																													
sds_mrsvnc	qs-mrsvnc-1	Enabled	Norm	Norm	Norm	Norm																																													
so_carync	so-carync-b	Enabled	Norm	Norm	Norm	Norm																																													
so_carync	so-carync-a	Enabled	Norm	Norm	Norm	Norm																																													
<p>36.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Click the “<b>Logout</b>” link on the SDS server GUI.</p>	 <p>Welcome <b>guiadmin</b> [Logout] <span style="float: right;">Help</span></p> <p style="text-align: right;">Fri Nov 18 14:43:32 2011 UTC</p> <p>ge = A 1-32-character string. at least one alpha and must</p>																																																	
<p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>																																																			

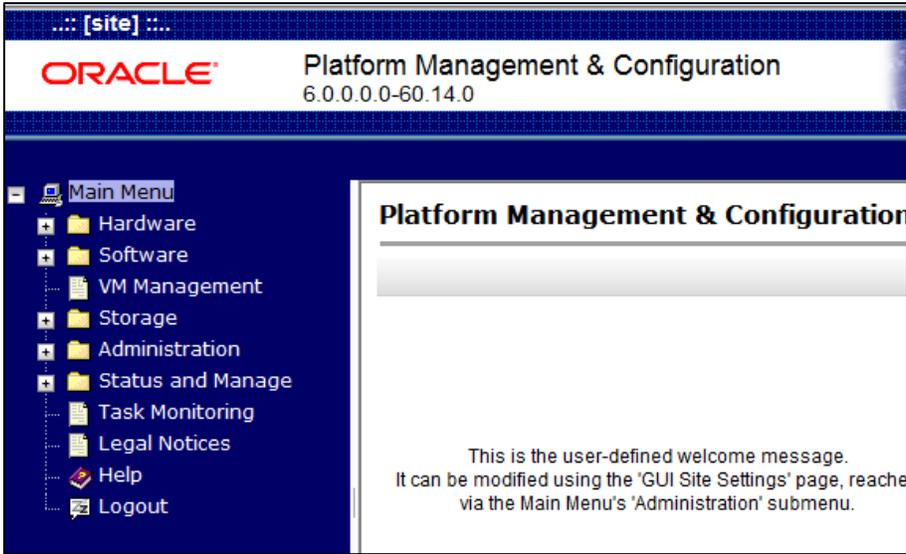
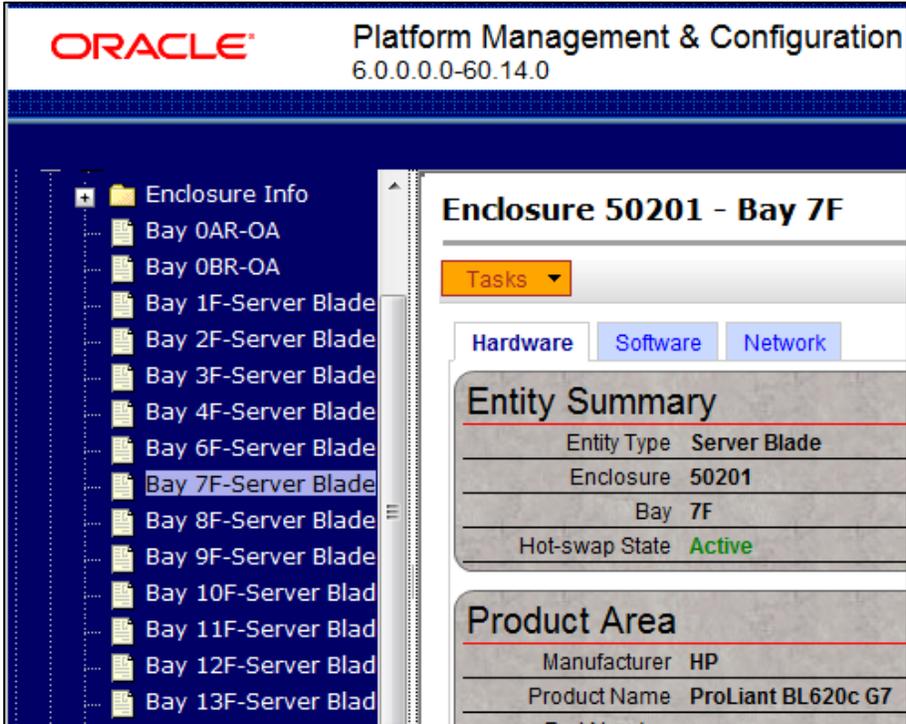
### 5.9 DP Installation (All SOAM sites)

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

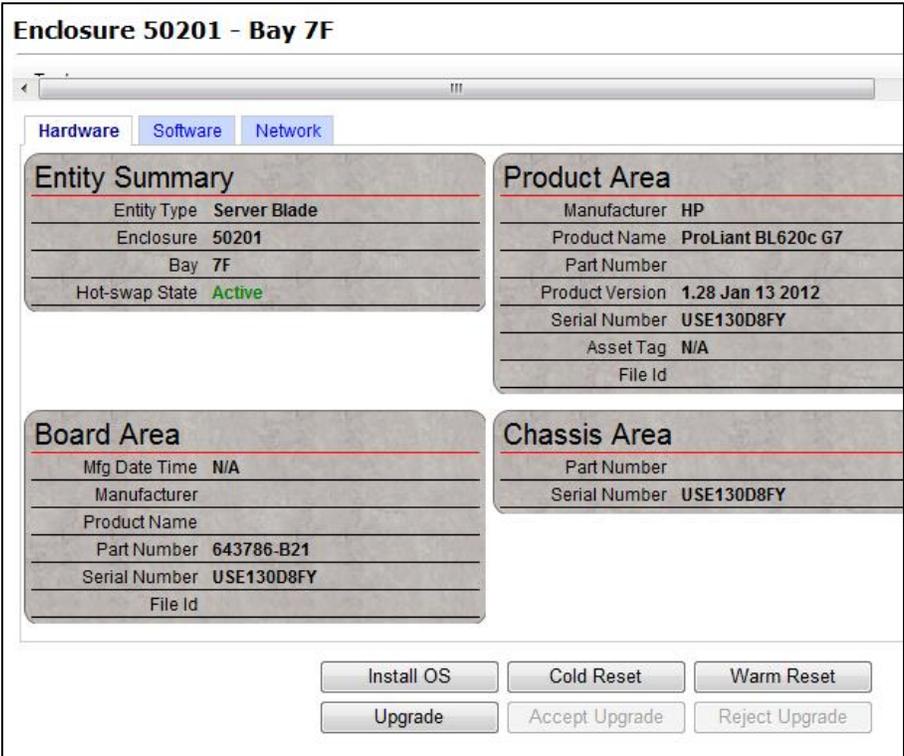
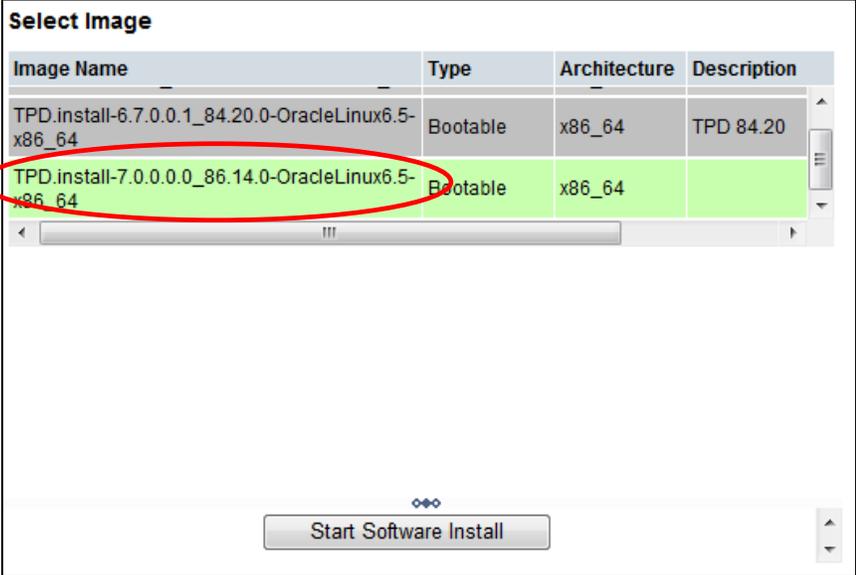
**Procedure 10:** Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
<div style="display: flex; align-items: center;">  <div style="background-color: yellow; padding: 5px; border: 1px solid black;"> <p><b>EXECUTE Appendix J: (Disable Hyperthreading (DP Only) FOR EACH DP BLADE BEFORE PROCEEDING WITHN THIS PROCEDURE.</b></p> </div> </div>		
<p>1.</p> <input type="checkbox"/>	<p><b>PMAC Guest VM:</b></p> <p>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> <i>If presented with the “security certificate” warning screen shown to the right, choose the following option: “Continue to this website (not recommended)”.</i></p>	
<p>2.</p> <input type="checkbox"/>	<p><b>PMAC Guest VM:</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>	

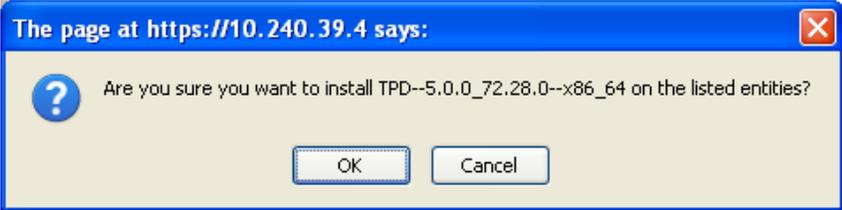
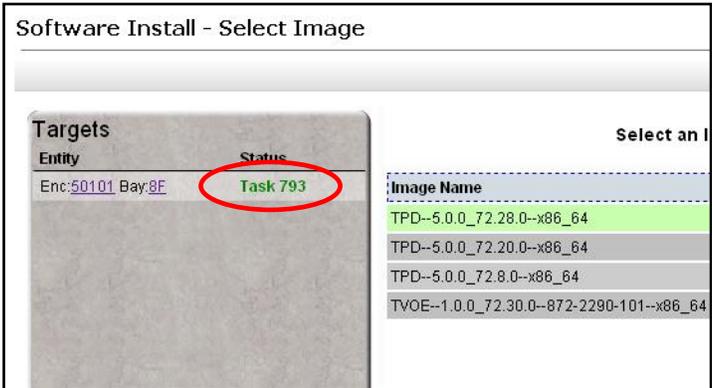
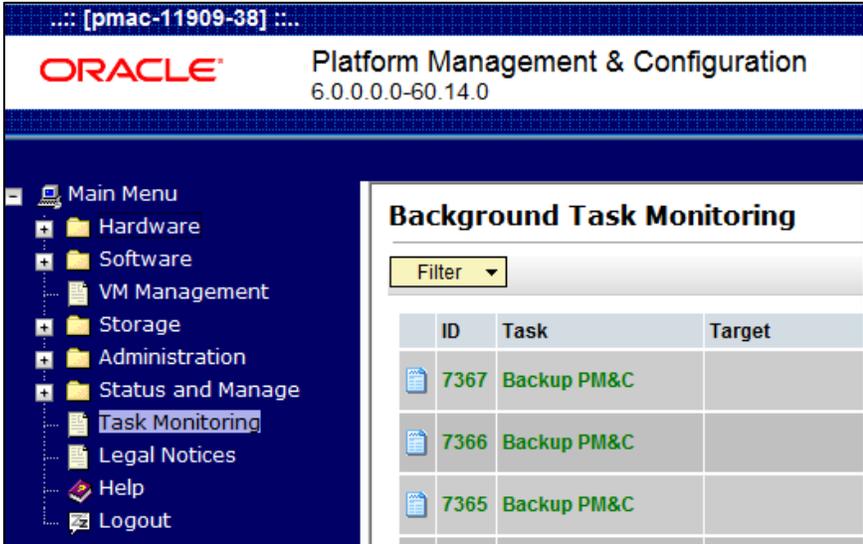
**Procedure 10:** Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
<p>3.</p> <p><input type="checkbox"/></p>	<p><b>PMAC Guest VM:</b></p> <p>The user should be presented the PMAC Main Menu as shown on the right...</p>	
<p>4.</p> <p><input type="checkbox"/></p> <p><b>PMAC Guest VM:</b></p> <p>Select the designated DP server blade from the Menu...</p> <p><b>Main Menu</b></p> <ul style="list-style-type: none"> <li>→ Hardware</li> <li>→ System Inventory</li> <li>→ &lt;Cabinet&gt;</li> <li>→ &lt;Enclosure&gt;</li> <li>→ &lt;Server Blade&gt;</li> </ul> <p>...as shown on the right.</p>		

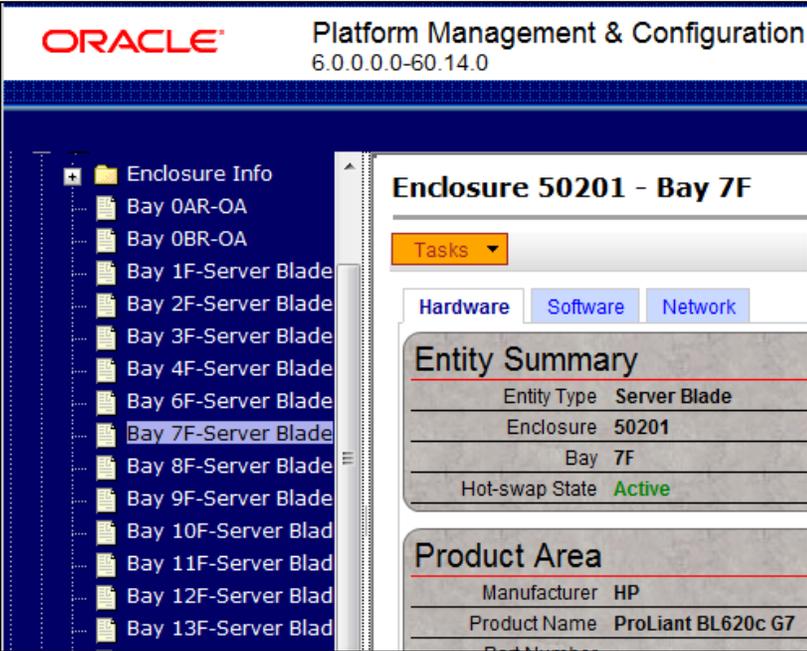
**Procedure 10:** Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result												
<p>5.</p> <p><input type="checkbox"/></p>	<p><b>PMAC Guest VM:</b></p> <p>Install the operating system by clicking the “Install OS” dialogue button</p>													
<p>6.</p> <p><input type="checkbox"/></p>	<p><b>PMAC Guest VM:</b></p> <p>1) Select the desired TPD Image</p> <p>2) Click the “Start Software Install” dialogue button</p>	 <table border="1"> <thead> <tr> <th>Image Name</th> <th>Type</th> <th>Architecture</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>TPD.install-6.7.0.0.1_84.20.0-OracleLinux6.5-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td>TPD 84.20</td> </tr> <tr style="background-color: #e0ffe0;"> <td>TPD.install-7.0.0.0.0_86.14.0-OracleLinux6.5-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td></td> </tr> </tbody> </table>	Image Name	Type	Architecture	Description	TPD.install-6.7.0.0.1_84.20.0-OracleLinux6.5-x86_64	Bootable	x86_64	TPD 84.20	TPD.install-7.0.0.0.0_86.14.0-OracleLinux6.5-x86_64	Bootable	x86_64	
Image Name	Type	Architecture	Description											
TPD.install-6.7.0.0.1_84.20.0-OracleLinux6.5-x86_64	Bootable	x86_64	TPD 84.20											
TPD.install-7.0.0.0.0_86.14.0-OracleLinux6.5-x86_64	Bootable	x86_64												

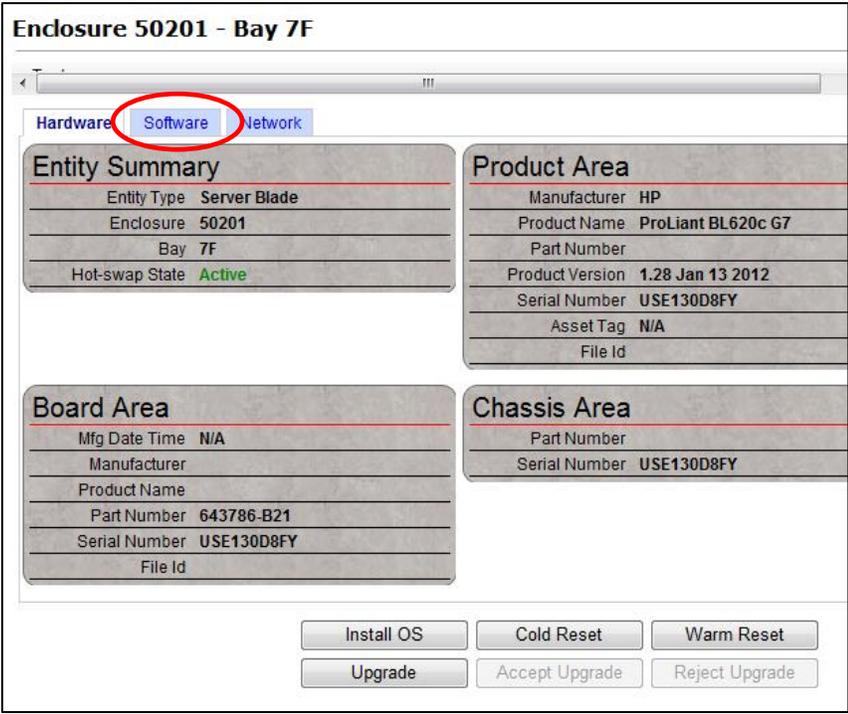
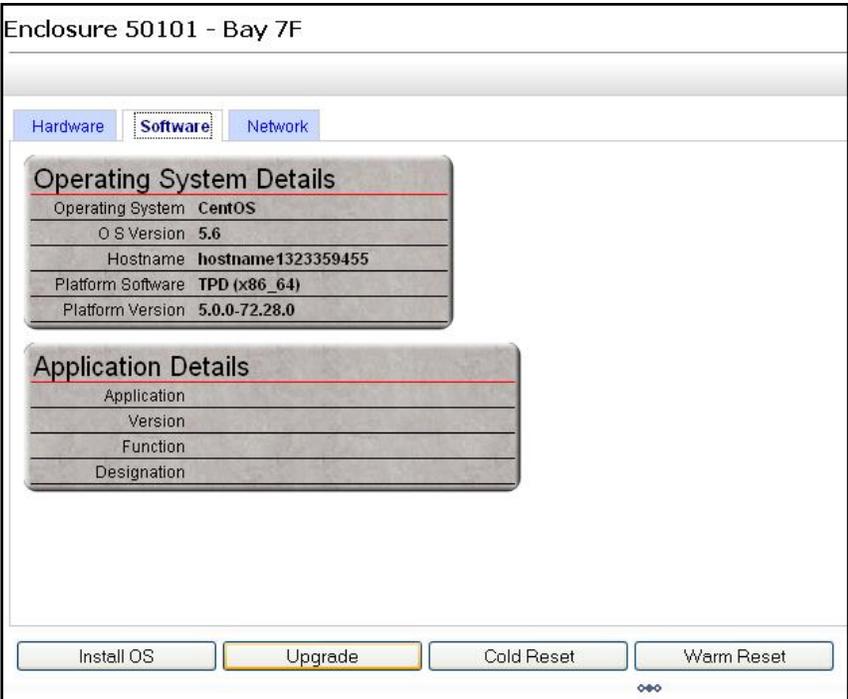
**Procedure 10:** Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
<p>7.</p> <p><input type="checkbox"/></p>	<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>	
<p>8.</p> <p><input type="checkbox"/></p>	<p><b>PMAC Guest VM:</b></p> <p>Note the task number assigned to TPD install. This number will be used to track its progress.</p> <p>This task takes up to ~25 minutes.</p>	
<p>9.</p> <p><input type="checkbox"/></p>	<p>Execute <b>“Install OS”</b> for for each additional DP Server.</p>	<ul style="list-style-type: none"> <li>Repeat <b>Steps 3 - 9</b> of this procedure for each additional <b>DP server blade</b> in the <b>SOAM</b> enclosure.</li> </ul>
<p>10.</p> <p><input type="checkbox"/></p>	<p><b>PMAC Guest VM:</b></p> <p>1) Select... <b>Main Menu</b> → <b>Task Monitoring</b> ...as shown on the right.</p>	

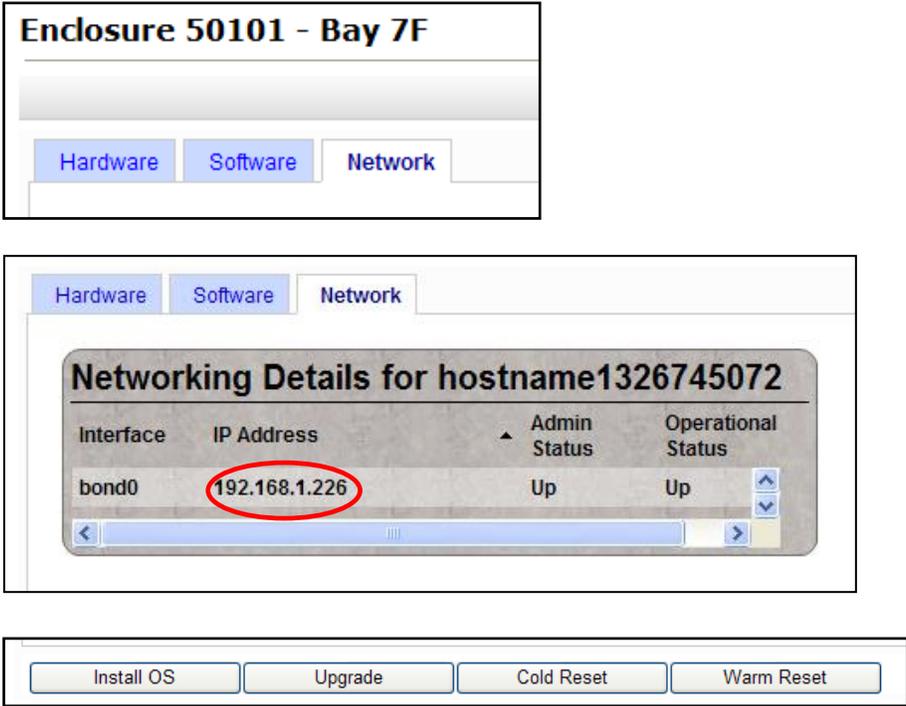
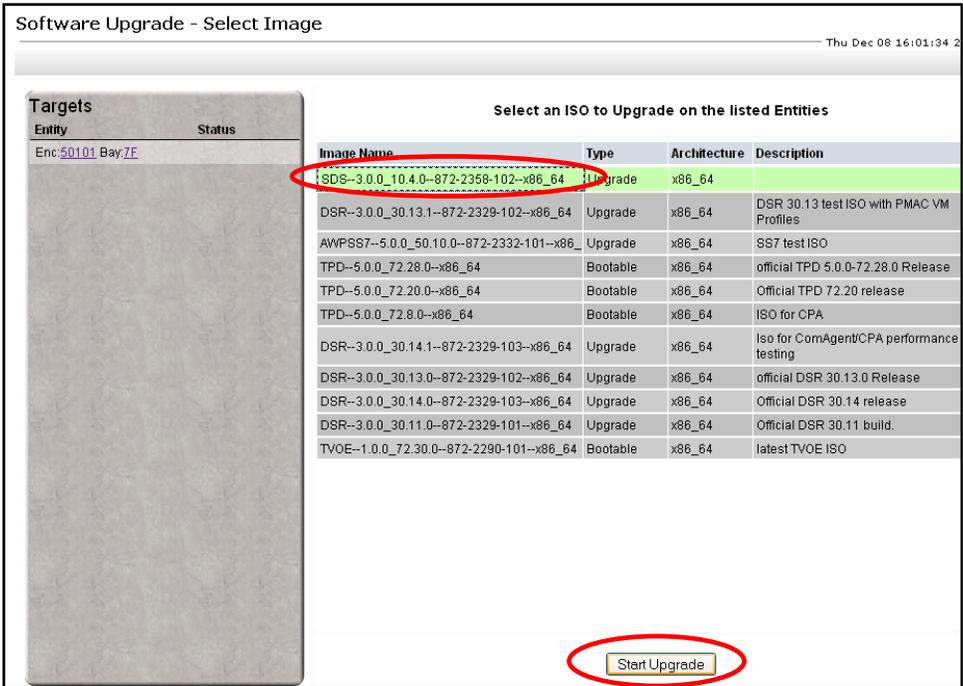
**Procedure 10:** Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																																																	
<p>11.</p> <p><input type="checkbox"/></p>	<p><b>PMAC Guest VM:</b></p> <p>Wait until “Install OS” the tasks show 100% under the <b>Progress</b> column.</p> <p>.... then proceed to the next step.</p>	<table border="1"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> <th>Status</th> <th>Running Time</th> <th>Start Time</th> <th>Progress</th> </tr> </thead> <tbody> <tr> <td>793</td> <td>Install OS</td> <td>Enc:50101 Bay:8F</td> <td>Done: TPD--5.0.0_72.28.0--x86_64</td> <td>0:24:45</td> <td>2011-12-08 10:28:08</td> <td>100%</td> </tr> <tr> <td>792</td> <td>Install OS</td> <td>Enc:50101 Bay:7F</td> <td>Done: TPD--5.0.0_72.28.0--x86_64</td> <td>0:25:08</td> <td>2011-12-08 10:26:42</td> <td>100%</td> </tr> <tr> <td>791</td> <td>Backup PM&amp;C</td> <td></td> <td>PM&amp;C Backup successful</td> <td>0:00:09</td> <td>2011-12-08 05:00:01</td> <td>100%</td> </tr> <tr> <td>790</td> <td>Upgrade</td> <td>Host IP: ...:55fffe85:3528 Guest: DP_SOAM_B</td> <td>Success</td> <td>0:06:24</td> <td>2011-12-07 12:24:53</td> <td>100%</td> </tr> <tr> <td>789</td> <td>Install OS</td> <td>Host IP: ...:55fffe85:3528 Guest: DP_SOAM_B</td> <td>Done: TPD--5.0.0_72.28.0--x86_64</td> <td>0:12:00</td> <td>2011-12-07 11:59:27</td> <td>100%</td> </tr> <tr> <td>788</td> <td>VirtAction: Create</td> <td>Enc:50101 Bay:12F Guest: DP_SOAM_B</td> <td>Guest creation completed (DP_SOAM_B)</td> <td>0:00:05</td> <td>2011-12-07 11:57:55</td> <td>100%</td> </tr> </tbody> </table>	ID	Task	Target	Status	Running Time	Start Time	Progress	793	Install OS	Enc:50101 Bay:8F	Done: TPD--5.0.0_72.28.0--x86_64	0:24:45	2011-12-08 10:28:08	100%	792	Install OS	Enc:50101 Bay:7F	Done: TPD--5.0.0_72.28.0--x86_64	0:25:08	2011-12-08 10:26:42	100%	791	Backup PM&C		PM&C Backup successful	0:00:09	2011-12-08 05:00:01	100%	790	Upgrade	Host IP: ...:55fffe85:3528 Guest: DP_SOAM_B	Success	0:06:24	2011-12-07 12:24:53	100%	789	Install OS	Host IP: ...:55fffe85:3528 Guest: DP_SOAM_B	Done: TPD--5.0.0_72.28.0--x86_64	0:12:00	2011-12-07 11:59:27	100%	788	VirtAction: Create	Enc:50101 Bay:12F Guest: DP_SOAM_B	Guest creation completed (DP_SOAM_B)	0:00:05	2011-12-07 11:57:55	100%
ID	Task	Target	Status	Running Time	Start Time	Progress																																													
793	Install OS	Enc:50101 Bay:8F	Done: TPD--5.0.0_72.28.0--x86_64	0:24:45	2011-12-08 10:28:08	100%																																													
792	Install OS	Enc:50101 Bay:7F	Done: TPD--5.0.0_72.28.0--x86_64	0:25:08	2011-12-08 10:26:42	100%																																													
791	Backup PM&C		PM&C Backup successful	0:00:09	2011-12-08 05:00:01	100%																																													
790	Upgrade	Host IP: ...:55fffe85:3528 Guest: DP_SOAM_B	Success	0:06:24	2011-12-07 12:24:53	100%																																													
789	Install OS	Host IP: ...:55fffe85:3528 Guest: DP_SOAM_B	Done: TPD--5.0.0_72.28.0--x86_64	0:12:00	2011-12-07 11:59:27	100%																																													
788	VirtAction: Create	Enc:50101 Bay:12F Guest: DP_SOAM_B	Guest creation completed (DP_SOAM_B)	0:00:05	2011-12-07 11:57:55	100%																																													
<p>12.</p> <p><input type="checkbox"/></p>	<p><b>PMAC Guest VM:</b></p> <p>Re-select the designated DP server blade from the Menu...</p> <p><b>Main Menu</b>                      → Hardware                      → System Inventory                      → &lt;Cabinet&gt;                      → &lt;Enclosure&gt;                      → &lt;Server Blade&gt;</p> <p>...as shown on the right.</p>	 <p>The screenshot shows the Oracle Platform Management &amp; Configuration interface. The title bar reads "ORACLE Platform Management &amp; Configuration 6.0.0.0.0-60.14.0". On the left is a tree view under "Enclosure Info" listing server blades from Bay 0AR-OA to Bay 13F-Server Blade. "Bay 7F-Server Blade" is selected. The main area displays "Enclosure 50201 - Bay 7F" with tabs for Hardware, Software, and Network. The "Entity Summary" section shows: Entity Type: Server Blade, Enclosure: 50201, Bay: 7F, Hot-swap State: Active. The "Product Area" section shows: Manufacturer: HP, Product Name: ProLiant BL620c G7.</p>																																																	

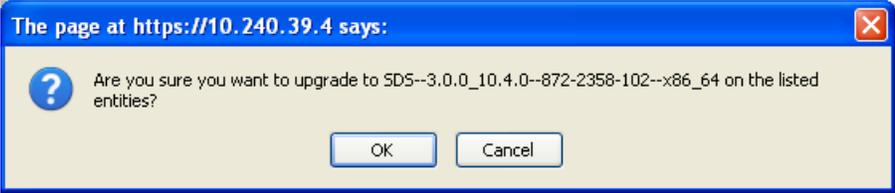
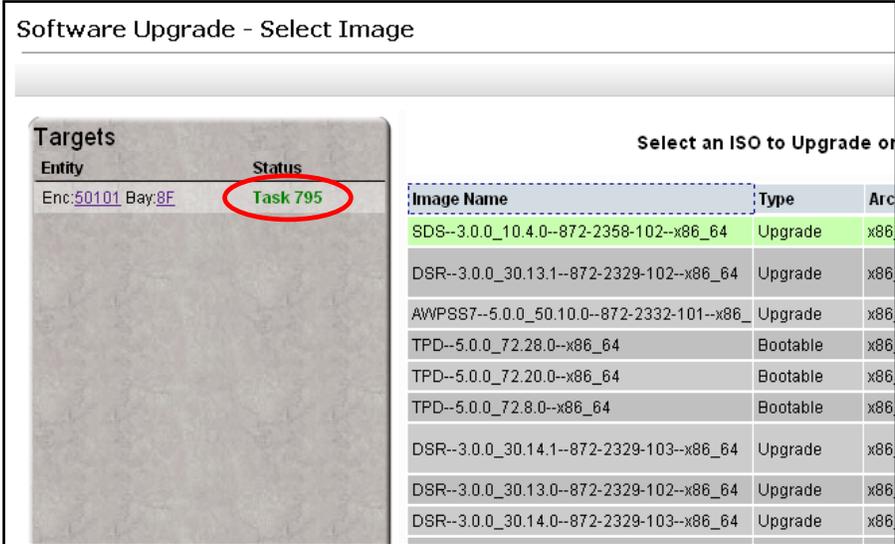
**Procedure 10:** Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
<p>13.</p> <p><input type="checkbox"/></p>	<p><b>PMAC Guest VM:</b></p> <p>Select the “Software” tab.</p>	
<p>14.</p> <p><input type="checkbox"/></p>	<p><b>PMAC Guest VM:</b></p> <p>1) Verify the correct TPD is shown.</p> <p>2) Verify “Application Details” are blank.</p>	

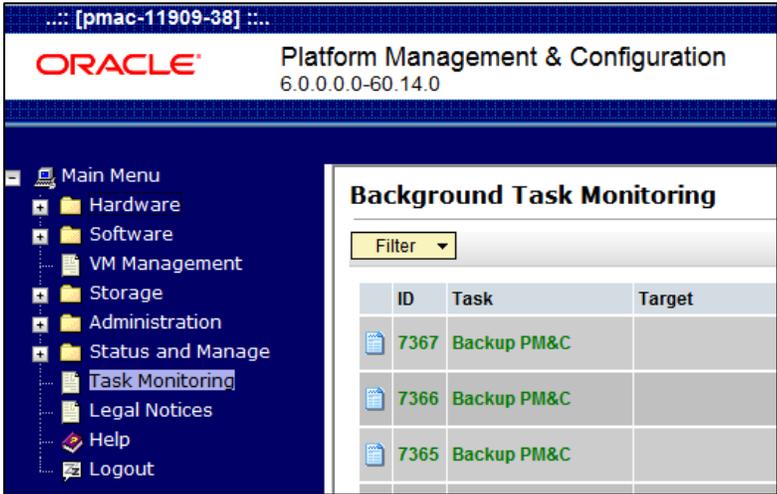
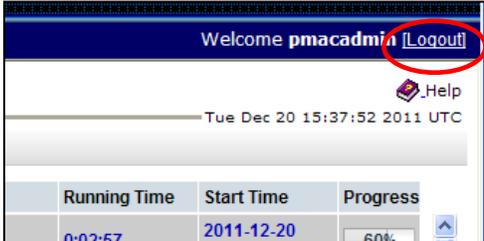
**Procedure 10:** Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																																																																								
<p>15.</p> <p><input type="checkbox"/></p>	<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><b>Enclosure 50101 - Bay 7F</b></p> <p>Hardware Software <b>Network</b></p> <p>Hardware Software Network</p> <p><b>Networking Details for hostname1326745072</b></p> <table border="1"> <thead> <tr> <th>Interface</th> <th>IP Address</th> <th>Admin Status</th> <th>Operational Status</th> </tr> </thead> <tbody> <tr> <td>bond0</td> <td>192.168.1.226</td> <td>Up</td> <td>Up</td> </tr> </tbody> </table> <p>Install OS Upgrade Cold Reset Warm Reset</p>	Interface	IP Address	Admin Status	Operational Status	bond0	192.168.1.226	Up	Up																																																																
Interface	IP Address	Admin Status	Operational Status																																																																							
bond0	192.168.1.226	Up	Up																																																																							
<p>16.</p> <p><input type="checkbox"/></p>	<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>GREEN</b>.</p> <p>2) Select the "Start Upgrade" dialogue button</p>	 <p>Software Upgrade - Select Image</p> <p>Targets</p> <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>Enc:50101 Bay:7F</td> <td></td> <td>SDS--3.0.0_10.4.0--872-2358-102--x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td></td> </tr> <tr> <td></td> <td></td> <td>DSR--3.0.0_30.13.1--872-2329-102--x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td>DSR 30.13 test ISO with PMAC VM Profiles</td> </tr> <tr> <td></td> <td></td> <td>AWPSS7--5.0.0_50.10.0--872-2332-101--x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td>SS7 test ISO</td> </tr> <tr> <td></td> <td></td> <td>TPD--5.0.0_72.28.0--x86_64</td> <td>Bootable</td> <td>x86_64</td> <td>official TPD 5.0.0-72.28.0 Release</td> </tr> <tr> <td></td> <td></td> <td>TPD--5.0.0_72.20.0--x86_64</td> <td>Bootable</td> <td>x86_64</td> <td>Official TPD 72.20 release</td> </tr> <tr> <td></td> <td></td> <td>TPD--5.0.0_72.8.0--x86_64</td> <td>Bootable</td> <td>x86_64</td> <td>ISO for CPA</td> </tr> <tr> <td></td> <td></td> <td>DSR--3.0.0_30.14.1--872-2329-103--x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td>Iso for ComAgent/CPA performance testing</td> </tr> <tr> <td></td> <td></td> <td>DSR--3.0.0_30.13.0--872-2329-102--x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td>official DSR 30.13.0 Release</td> </tr> <tr> <td></td> <td></td> <td>DSR--3.0.0_30.14.0--872-2329-103--x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td>Official DSR 30.14 release</td> </tr> <tr> <td></td> <td></td> <td>DSR--3.0.0_30.11.0--872-2329-101--x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td>Official DSR 30.11 build.</td> </tr> <tr> <td></td> <td></td> <td>TVOE--1.0.0_72.30.0--872-2290-101--x86_64</td> <td>Bootable</td> <td>x86_64</td> <td>latest TVOE ISO</td> </tr> </tbody> </table> <p>Start Upgrade</p>	Entity	Status	Image Name	Type	Architecture	Description	Enc:50101 Bay:7F		SDS--3.0.0_10.4.0--872-2358-102--x86_64	Upgrade	x86_64				DSR--3.0.0_30.13.1--872-2329-102--x86_64	Upgrade	x86_64	DSR 30.13 test ISO with PMAC VM Profiles			AWPSS7--5.0.0_50.10.0--872-2332-101--x86_64	Upgrade	x86_64	SS7 test ISO			TPD--5.0.0_72.28.0--x86_64	Bootable	x86_64	official TPD 5.0.0-72.28.0 Release			TPD--5.0.0_72.20.0--x86_64	Bootable	x86_64	Official TPD 72.20 release			TPD--5.0.0_72.8.0--x86_64	Bootable	x86_64	ISO for CPA			DSR--3.0.0_30.14.1--872-2329-103--x86_64	Upgrade	x86_64	Iso for ComAgent/CPA performance testing			DSR--3.0.0_30.13.0--872-2329-102--x86_64	Upgrade	x86_64	official DSR 30.13.0 Release			DSR--3.0.0_30.14.0--872-2329-103--x86_64	Upgrade	x86_64	Official DSR 30.14 release			DSR--3.0.0_30.11.0--872-2329-101--x86_64	Upgrade	x86_64	Official DSR 30.11 build.			TVOE--1.0.0_72.30.0--872-2290-101--x86_64	Bootable	x86_64	latest TVOE ISO
Entity	Status	Image Name	Type	Architecture	Description																																																																					
Enc:50101 Bay:7F		SDS--3.0.0_10.4.0--872-2358-102--x86_64	Upgrade	x86_64																																																																						
		DSR--3.0.0_30.13.1--872-2329-102--x86_64	Upgrade	x86_64	DSR 30.13 test ISO with PMAC VM Profiles																																																																					
		AWPSS7--5.0.0_50.10.0--872-2332-101--x86_64	Upgrade	x86_64	SS7 test ISO																																																																					
		TPD--5.0.0_72.28.0--x86_64	Bootable	x86_64	official TPD 5.0.0-72.28.0 Release																																																																					
		TPD--5.0.0_72.20.0--x86_64	Bootable	x86_64	Official TPD 72.20 release																																																																					
		TPD--5.0.0_72.8.0--x86_64	Bootable	x86_64	ISO for CPA																																																																					
		DSR--3.0.0_30.14.1--872-2329-103--x86_64	Upgrade	x86_64	Iso for ComAgent/CPA performance testing																																																																					
		DSR--3.0.0_30.13.0--872-2329-102--x86_64	Upgrade	x86_64	official DSR 30.13.0 Release																																																																					
		DSR--3.0.0_30.14.0--872-2329-103--x86_64	Upgrade	x86_64	Official DSR 30.14 release																																																																					
		DSR--3.0.0_30.11.0--872-2329-101--x86_64	Upgrade	x86_64	Official DSR 30.11 build.																																																																					
		TVOE--1.0.0_72.30.0--872-2290-101--x86_64	Bootable	x86_64	latest TVOE ISO																																																																					

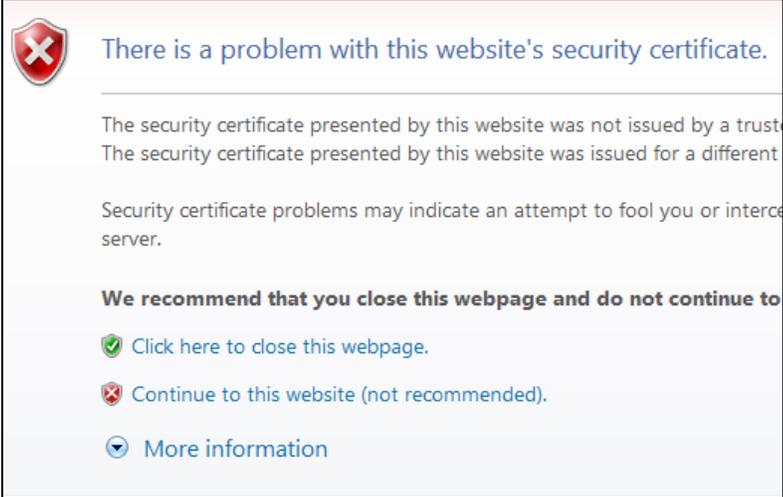
**Procedure 10:** Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																														
<p>17.</p> <input type="checkbox"/>	<p><b>PMAC Guest VM:</b></p> <p>The user should be presented with an <b>“Are you sure you want to upgrade”</b> message box ....as shown on the right.</p> <p>Click the <b>“OK”</b> dialogue button.</p>																															
<p>18.</p> <input type="checkbox"/>	<p><b>PMAC Guest VM:</b></p> <p>Note the task number assigned to TPD install. This number will be used to track its progress.</p> <p>This task takes up to ~20 minutes.</p>	 <table border="1"> <thead> <tr> <th>Image Name</th> <th>Type</th> <th>Arc</th> </tr> </thead> <tbody> <tr> <td>SDS--3.0.0_10.4.0--872-2358-102--x86_64</td> <td>Upgrade</td> <td>x86</td> </tr> <tr> <td>DSR--3.0.0_30.13.1--872-2329-102--x86_64</td> <td>Upgrade</td> <td>x86</td> </tr> <tr> <td>AWPSS7--5.0.0_50.10.0--872-2332-101--x86_64</td> <td>Upgrade</td> <td>x86</td> </tr> <tr> <td>TPD--5.0.0_72.28.0--x86_64</td> <td>Bootable</td> <td>x86</td> </tr> <tr> <td>TPD--5.0.0_72.20.0--x86_64</td> <td>Bootable</td> <td>x86</td> </tr> <tr> <td>TPD--5.0.0_72.8.0--x86_64</td> <td>Bootable</td> <td>x86</td> </tr> <tr> <td>DSR--3.0.0_30.14.1--872-2329-103--x86_64</td> <td>Upgrade</td> <td>x86</td> </tr> <tr> <td>DSR--3.0.0_30.13.0--872-2329-102--x86_64</td> <td>Upgrade</td> <td>x86</td> </tr> <tr> <td>DSR--3.0.0_30.14.0--872-2329-103--x86_64</td> <td>Upgrade</td> <td>x86</td> </tr> </tbody> </table>	Image Name	Type	Arc	SDS--3.0.0_10.4.0--872-2358-102--x86_64	Upgrade	x86	DSR--3.0.0_30.13.1--872-2329-102--x86_64	Upgrade	x86	AWPSS7--5.0.0_50.10.0--872-2332-101--x86_64	Upgrade	x86	TPD--5.0.0_72.28.0--x86_64	Bootable	x86	TPD--5.0.0_72.20.0--x86_64	Bootable	x86	TPD--5.0.0_72.8.0--x86_64	Bootable	x86	DSR--3.0.0_30.14.1--872-2329-103--x86_64	Upgrade	x86	DSR--3.0.0_30.13.0--872-2329-102--x86_64	Upgrade	x86	DSR--3.0.0_30.14.0--872-2329-103--x86_64	Upgrade	x86
Image Name	Type	Arc																														
SDS--3.0.0_10.4.0--872-2358-102--x86_64	Upgrade	x86																														
DSR--3.0.0_30.13.1--872-2329-102--x86_64	Upgrade	x86																														
AWPSS7--5.0.0_50.10.0--872-2332-101--x86_64	Upgrade	x86																														
TPD--5.0.0_72.28.0--x86_64	Bootable	x86																														
TPD--5.0.0_72.20.0--x86_64	Bootable	x86																														
TPD--5.0.0_72.8.0--x86_64	Bootable	x86																														
DSR--3.0.0_30.14.1--872-2329-103--x86_64	Upgrade	x86																														
DSR--3.0.0_30.13.0--872-2329-102--x86_64	Upgrade	x86																														
DSR--3.0.0_30.14.0--872-2329-103--x86_64	Upgrade	x86																														
<p>19.</p> <input type="checkbox"/>	<p>Install SDS SW on each remaining DP server blade.</p>	<ul style="list-style-type: none"> <li>Repeat <b>Steps 10 - 18</b> of this procedure for each additional <b>DP server blade</b> installed in the <b>SOAM</b> enclosure.</li> </ul>																														

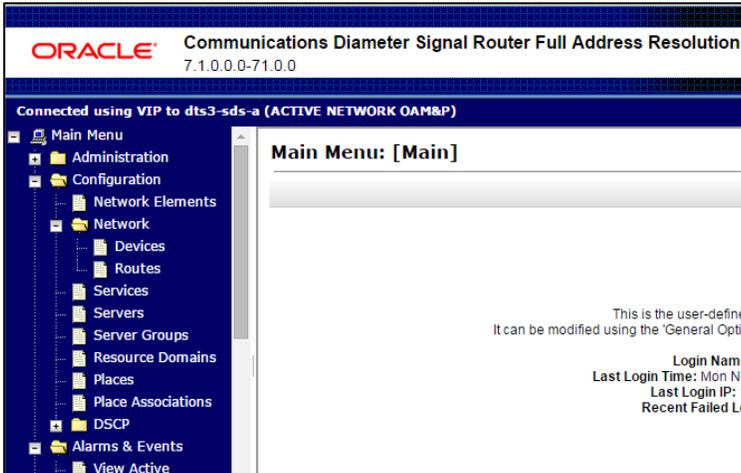
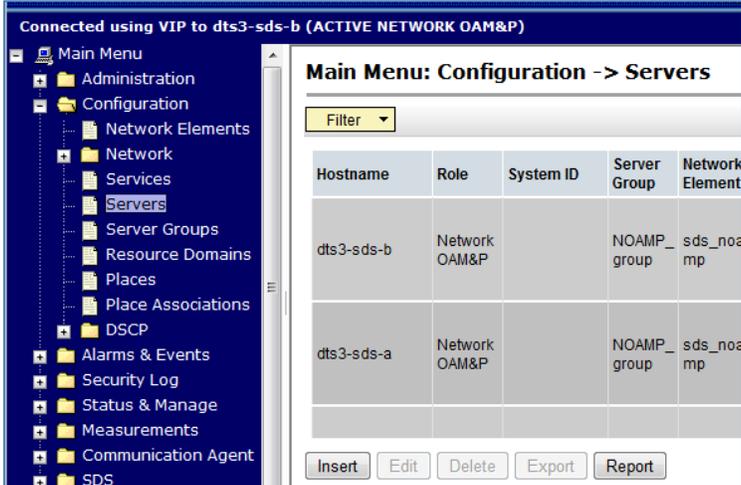
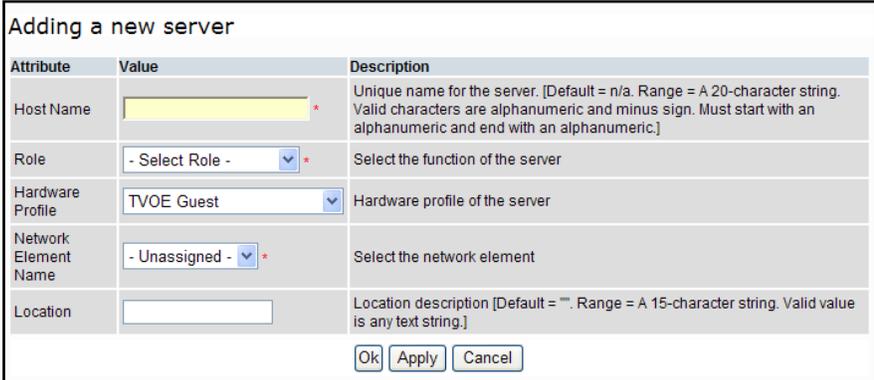
**Procedure 10:** Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																																																	
<p>20.</p> <p><input type="checkbox"/></p>	<p><b>PMAC Guest VM:</b></p> <p>Select...</p> <p><b>Main Menu</b></p> <p>→ <b>Task Monitoring</b></p> <p>...as shown on the right.</p>	 <p>The screenshot shows the Oracle Platform Management &amp; Configuration interface. On the left is a 'Main Menu' tree with 'Task Monitoring' selected. On the right is a 'Background Task Monitoring' table with the following data:</p> <table border="1"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> </tr> </thead> <tbody> <tr> <td>7367</td> <td>Backup PM&amp;C</td> <td></td> </tr> <tr> <td>7366</td> <td>Backup PM&amp;C</td> <td></td> </tr> <tr> <td>7365</td> <td>Backup PM&amp;C</td> <td></td> </tr> </tbody> </table>	ID	Task	Target	7367	Backup PM&C		7366	Backup PM&C		7365	Backup PM&C																																						
ID	Task	Target																																																	
7367	Backup PM&C																																																		
7366	Backup PM&C																																																		
7365	Backup PM&C																																																		
<p>21.</p> <p><input type="checkbox"/></p>	<p><b>PMAC Guest VM:</b></p> <p>Wait until “Upgrade” tasks show 100% under the <b>Progress</b> column.</p> <p>.... then proceed to the next step.</p>	<table border="1"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> <th>Status</th> <th>Running Time</th> <th>Start Time</th> <th>Progress</th> </tr> </thead> <tbody> <tr> <td>795</td> <td>Upgrade</td> <td>Enc:50101 Bay:8F</td> <td>Success</td> <td>0:12:11</td> <td>2011-12-08 11:02:33</td> <td>100%</td> </tr> <tr> <td>794</td> <td>Upgrade</td> <td>Enc:50101 Bay:7F</td> <td>Success</td> <td>0:12:08</td> <td>2011-12-08 11:01:56</td> <td>100%</td> </tr> <tr> <td>793</td> <td>Install OS</td> <td>Enc:50101 Bay:8F</td> <td>Done: TPD--5.0.0_72.28.0--x86_64</td> <td>0:24:45</td> <td>2011-12-08 10:28:08</td> <td>100%</td> </tr> <tr> <td>792</td> <td>Install OS</td> <td>Enc:50101 Bay:7F</td> <td>Done: TPD--5.0.0_72.28.0--x86_64</td> <td>0:25:08</td> <td>2011-12-08 10:26:42</td> <td>100%</td> </tr> <tr> <td>791</td> <td>Backup PM&amp;C</td> <td></td> <td>PM&amp;C Backup successful</td> <td>0:00:09</td> <td>2011-12-08 05:00:01</td> <td>100%</td> </tr> <tr> <td>790</td> <td>Upgrade</td> <td>Host IP: ...55fffe85:3528 Guest: DP_SOAM_B</td> <td>Success</td> <td>0:06:24</td> <td>2011-12-07 12:24:53</td> <td>100%</td> </tr> </tbody> </table>	ID	Task	Target	Status	Running Time	Start Time	Progress	795	Upgrade	Enc:50101 Bay:8F	Success	0:12:11	2011-12-08 11:02:33	100%	794	Upgrade	Enc:50101 Bay:7F	Success	0:12:08	2011-12-08 11:01:56	100%	793	Install OS	Enc:50101 Bay:8F	Done: TPD--5.0.0_72.28.0--x86_64	0:24:45	2011-12-08 10:28:08	100%	792	Install OS	Enc:50101 Bay:7F	Done: TPD--5.0.0_72.28.0--x86_64	0:25:08	2011-12-08 10:26:42	100%	791	Backup PM&C		PM&C Backup successful	0:00:09	2011-12-08 05:00:01	100%	790	Upgrade	Host IP: ...55fffe85:3528 Guest: DP_SOAM_B	Success	0:06:24	2011-12-07 12:24:53	100%
ID	Task	Target	Status	Running Time	Start Time	Progress																																													
795	Upgrade	Enc:50101 Bay:8F	Success	0:12:11	2011-12-08 11:02:33	100%																																													
794	Upgrade	Enc:50101 Bay:7F	Success	0:12:08	2011-12-08 11:01:56	100%																																													
793	Install OS	Enc:50101 Bay:8F	Done: TPD--5.0.0_72.28.0--x86_64	0:24:45	2011-12-08 10:28:08	100%																																													
792	Install OS	Enc:50101 Bay:7F	Done: TPD--5.0.0_72.28.0--x86_64	0:25:08	2011-12-08 10:26:42	100%																																													
791	Backup PM&C		PM&C Backup successful	0:00:09	2011-12-08 05:00:01	100%																																													
790	Upgrade	Host IP: ...55fffe85:3528 Guest: DP_SOAM_B	Success	0:06:24	2011-12-07 12:24:53	100%																																													
<p>22.</p> <p><input type="checkbox"/></p>	<p><b>PMAC Guest VM::</b></p> <p>Click the “Logout” link on the PMAC server GUI.</p>	 <p>The screenshot shows the PMAC server GUI with the text 'Welcome pmacadmi' and a circled 'Logout' link. Below the main content, there is a table with the following data:</p> <table border="1"> <thead> <tr> <th>Running Time</th> <th>Start Time</th> <th>Progress</th> </tr> </thead> <tbody> <tr> <td>0:02:57</td> <td>2011-12-20</td> <td>60%</td> </tr> </tbody> </table>	Running Time	Start Time	Progress	0:02:57	2011-12-20	60%																																											
Running Time	Start Time	Progress																																																	
0:02:57	2011-12-20	60%																																																	

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

Step	Procedure	Result
<p>23.</p> <p><input type="checkbox"/></p>	<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> <i>If presented with the “security certificate” warning screen shown to the right, choose the following option: “Continue to this website (not recommended)”.</i></p>	
<p>24.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</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>	

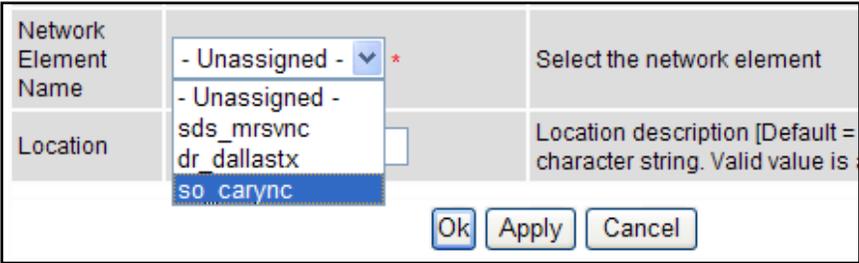
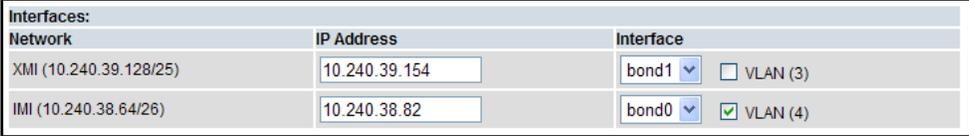
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
<p>25.</p> <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>26.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</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>27.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>The user is now presented with the “<b>Adding a new server</b>” configuration screen.</p>	

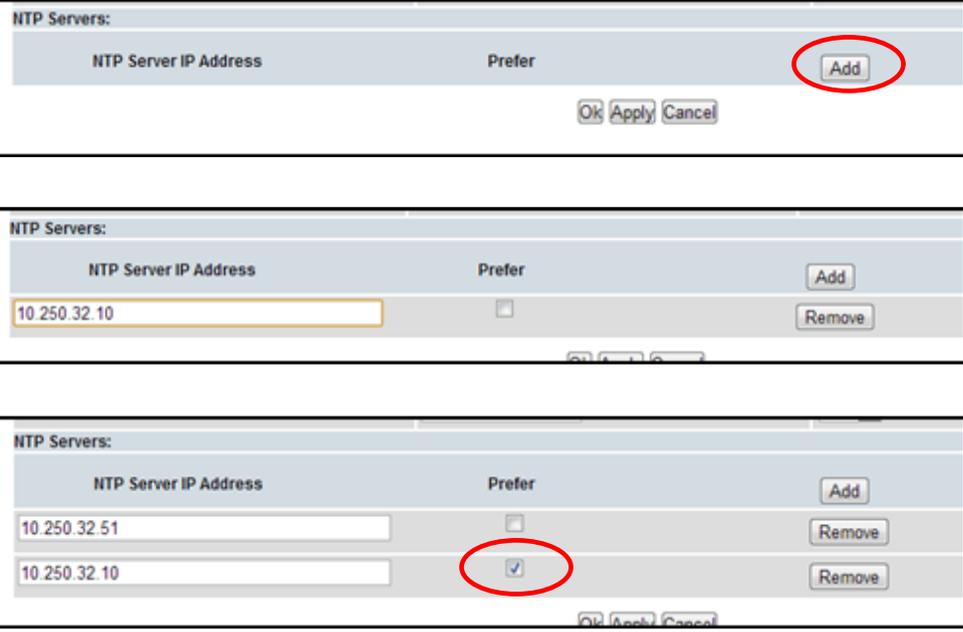
**Procedure 10:** Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																														
<p>28.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b> Input the assigned <b>“hostname”</b> for the Database Processor (DP).</p>	<div style="border: 1px solid black; padding: 5px;"> <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>Host Name</td> <td>dp-carync-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.]</td> </tr> </tbody> </table> </div>	Attribute	Value	Description	Host Name	dp-carync-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.]																								
Attribute	Value	Description																														
Host Name	dp-carync-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.]																														
<p>29.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b> Select <b>“MP”</b> for the server <b>Role</b> from the pull-down menu.</p>	<div style="border: 1px solid black; padding: 5px;"> <table border="1"> <tr> <td>Role</td> <td>MP *</td> <td>Select the function of the server</td> </tr> <tr> <td>Hardware Profile</td> <td>V1</td> <td>Hardware profile of the server</td> </tr> <tr> <td>Network Element Name</td> <td>MP QUERY SERVER</td> <td>Select the network element</td> </tr> </table> </div>	Role	MP *	Select the function of the server	Hardware Profile	V1	Hardware profile of the server	Network Element Name	MP QUERY SERVER	Select the network element																					
Role	MP *	Select the function of the server																														
Hardware Profile	V1	Hardware profile of the server																														
Network Element Name	MP QUERY SERVER	Select the network element																														
<p>30.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b> 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>	<div style="border: 1px solid black; padding: 5px;"> <table border="1"> <tr> <td>Hardware Profile</td> <td>SDS TVOE Guest</td> <td>Hardware profile of the server</td> </tr> <tr> <td>Network Element Name</td> <td>SDS HP c-Class Blade V2</td> <td>Select the network element</td> </tr> <tr> <td>Location</td> <td>SDS HP c-Class Blade V1</td> <td>Location description [Default = "". Range string.]</td> </tr> </table> <p style="text-align: right;"> <input type="button" value="Ok"/> <input type="button" value="Apply"/> <input type="button" value="Cancel"/> </p> </div> <table border="1"> <thead> <tr> <th>DP HW Profile</th> <th>Network</th> <th>Bonded Interfaces</th> <th>Comments</th> </tr> </thead> <tbody> <tr> <td rowspan="2">SDS HP c-Class Blade V0</td> <td>IMI</td> <td rowspan="2">Bond0 (eth01, eth02)</td> <td rowspan="2">Use when both XMI and IMI are to be VLAN tagged.</td> </tr> <tr> <td>XMI</td> </tr> <tr> <td rowspan="2">SDS HP c-Class Blade V1</td> <td>IMI</td> <td>Bond0 (eth01, eth02)</td> <td rowspan="2">Use when XMI enclosure switches are connected to DP blade mezzanine card ports eth23 / eth24.</td> </tr> <tr> <td>XMI</td> <td>bond1 (eth23, eth24)</td> </tr> <tr> <td rowspan="2">SDS HP c-Class Blade V2</td> <td>IMI</td> <td>Bond0 (eth01, eth02)</td> <td rowspan="2">Use when XMI enclosure switches are connected to DP blade mezzanine card ports eth21 / eth22.</td> </tr> <tr> <td>XMI</td> <td>bond1 (eth21, eth22)</td> </tr> </tbody> </table>	Hardware Profile	SDS TVOE Guest	Hardware profile of the server	Network Element Name	SDS HP c-Class Blade V2	Select the network element	Location	SDS HP c-Class Blade V1	Location description [Default = "". Range string.]	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)
Hardware Profile	SDS TVOE Guest	Hardware profile of the server																														
Network Element Name	SDS HP c-Class Blade V2	Select the network element																														
Location	SDS HP c-Class Blade V1	Location description [Default = "". Range string.]																														
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)																														

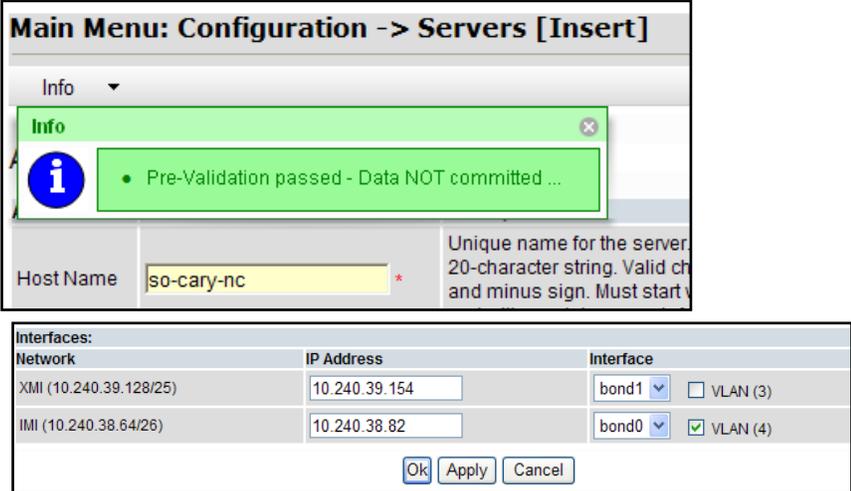
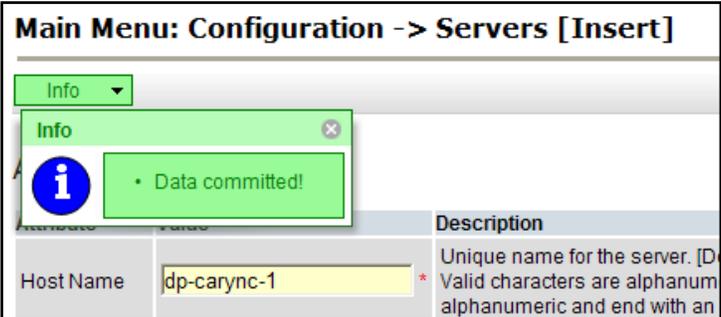
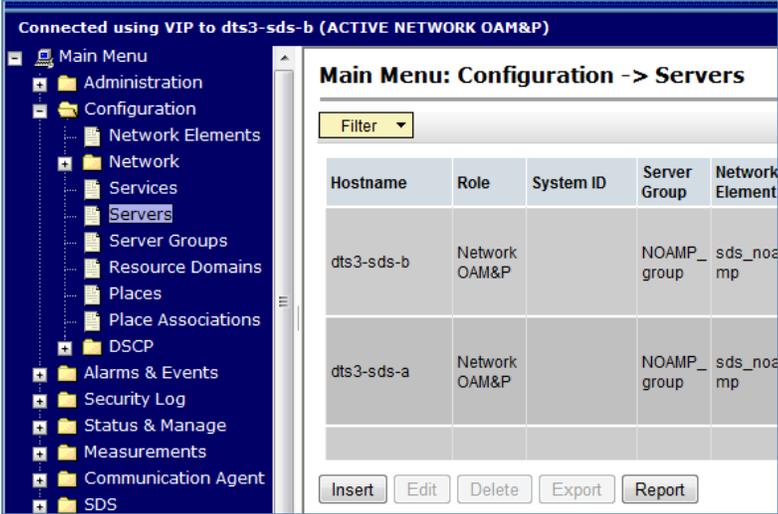
**Procedure 10:** Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result								
<p>31.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>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>	 <p><b>NOTE:</b> After the Network Element Name is selected, the Interfaces fields will be displayed, as seen in <b>Step 33</b></p>								
<p>32.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Enter the site location.</p> <p><b>NOTE:</b> Location is an optional field.</p>									
<p>33.</p> <p><input type="checkbox"/></p>	<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 “bond0” and “check” the <b>VLAN</b> checkbox.</p>	 <table border="1"> <thead> <tr> <th>DP Server</th> <th>Network</th> <th>Interface</th> <th>VLAN Checkbox</th> </tr> </thead> <tbody> <tr> <td>DP</td> <td>IMI</td> <td>bond0</td> <td><input checked="" type="checkbox"/></td> </tr> </tbody> </table>	DP Server	Network	Interface	VLAN Checkbox	DP	IMI	bond0	<input checked="" type="checkbox"/>
DP Server	Network	Interface	VLAN Checkbox							
DP	IMI	bond0	<input checked="" type="checkbox"/>							

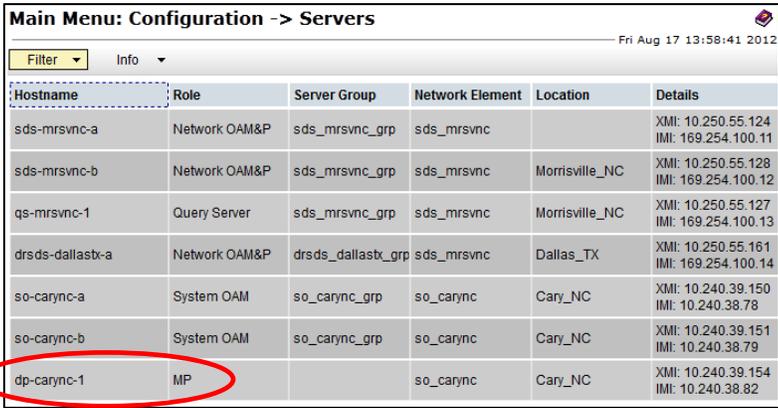
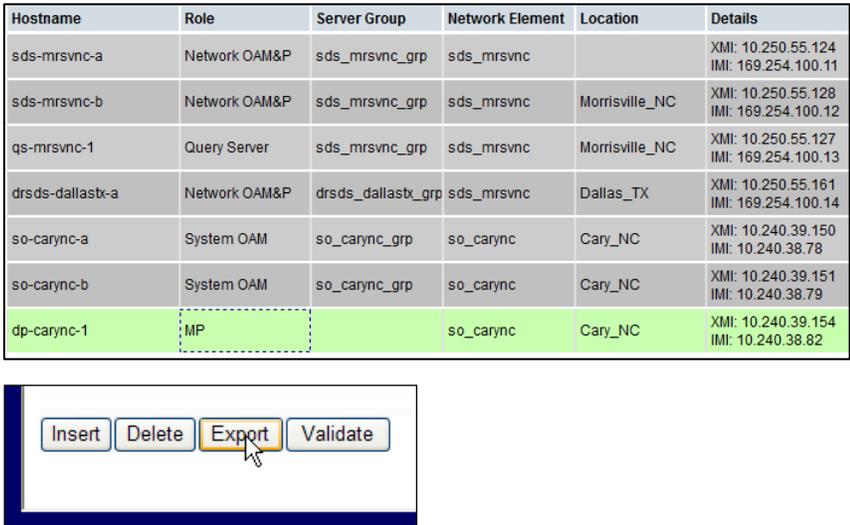
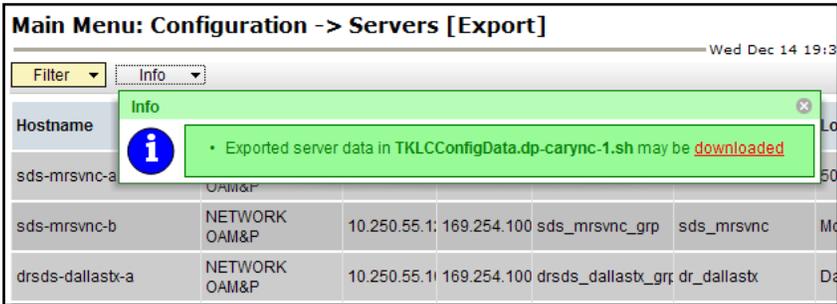
**Procedure 10:** Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result													
<p><b>34.</b></p>	<p>1) Enter the customer assigned <b>XMI</b> IP address for the <b>DP Server</b>.</p> <p><b>Layer 3</b> (No VLAN tagging used for XMI)</p> <p>2) Set the <b>XMI</b> Interface to “<b>bond1</b>” and “<b>DO NOT check</b>” the VLAN checkbox. - OR -</p> <p><b>Layer 2</b> (VLAN tagging used for XMI)</p> <p>2) Set the <b>XMI</b> Interface to “<b>bond0</b>” and “<b>check</b>” the VLAN checkbox.</p>	<table border="1"> <thead> <tr> <th>DP Server</th> <th>Network</th> <th>VLAN tagging (on XMI network)</th> <th>Interface</th> <th>VLAN Checkbox</th> </tr> </thead> <tbody> <tr> <td rowspan="2">DP</td> <td rowspan="2">XMI</td> <td>No</td> <td>bond1</td> <td>✗</td> </tr> <tr> <td>Yes</td> <td>bond0</td> <td>✓</td> </tr> </tbody> </table> <p><b>!!! CAUTION !!!</b> It is crucial that the correct network configuration be selected in <b>Steps 33 - 34</b> of this procedure. Choosing an incorrect configuration will result in the need to re-install the OS and restart the DP Server installation procedure over from the beginning.</p>	DP Server	Network	VLAN tagging (on XMI network)	Interface	VLAN Checkbox	DP	XMI	No	bond1	✗	Yes	bond0	✓
DP Server	Network	VLAN tagging (on XMI network)	Interface	VLAN Checkbox											
DP	XMI	No	bond1	✗											
		Yes	bond0	✓											
<p><b>35.</b></p>	<p><b>Primary SDS VIP:</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) If you have another <b>NTP Server 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>	 <p>The screenshots show the 'NTP Servers' configuration dialog. The first screenshot shows the 'Add' button circled in red. The second screenshot shows the 'NTP Server IP Address' field with '10.250.32.10' entered. The third screenshot shows two entries, with the 'Prefer' checkbox for '10.250.32.10' circled in red.</p>													

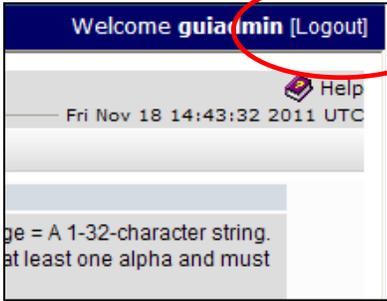
**Procedure 10:** Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result															
<p>36.</p> <p><input type="checkbox"/></p>	<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> <p>Info</p> <p>Info</p> <ul style="list-style-type: none"> <li>Pre-Validation passed - Data NOT committed ...</li> </ul> <p>Host Name: so-cary-nc</p> <p>Unique name for the server. 20-character string. Valid characters are alphanumeric and minus sign. Must start with a letter.</p> <table border="1"> <thead> <tr> <th>Network</th> <th>IP Address</th> <th>Interface</th> <th></th> </tr> </thead> <tbody> <tr> <td>XMI (10.240.39.128/25)</td> <td>10.240.39.154</td> <td>bond1</td> <td><input type="checkbox"/> VLAN (3)</td> </tr> <tr> <td>IMI (10.240.38.64/26)</td> <td>10.240.38.82</td> <td>bond0</td> <td><input checked="" type="checkbox"/> VLAN (4)</td> </tr> </tbody> </table> <p>Ok Apply Cancel</p>	Network	IP Address	Interface		XMI (10.240.39.128/25)	10.240.39.154	bond1	<input type="checkbox"/> VLAN (3)	IMI (10.240.38.64/26)	10.240.38.82	bond0	<input checked="" type="checkbox"/> VLAN (4)			
Network	IP Address	Interface															
XMI (10.240.39.128/25)	10.240.39.154	bond1	<input type="checkbox"/> VLAN (3)														
IMI (10.240.38.64/26)	10.240.38.82	bond0	<input checked="" type="checkbox"/> VLAN (4)														
<p>37.</p> <p><input type="checkbox"/></p>	<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> <p>Info</p> <p>Info</p> <ul style="list-style-type: none"> <li>Data committed!</li> </ul> <p>Host Name: dp-carync-1</p> <p>Unique name for the server. Description: Valid characters are alphanumeric and end with an alphanumeric character.</p> <table border="1"> <thead> <tr> <th>Network</th> <th>IP Address</th> <th>Interface</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>XMI (10.240.39.128/25)</td> <td>10.240.39.154</td> <td>bond1</td> <td><input type="checkbox"/> VLAN (3)</td> </tr> <tr> <td>IMI (10.240.38.64/26)</td> <td>10.240.38.82</td> <td>bond0</td> <td><input checked="" type="checkbox"/> VLAN (4)</td> </tr> </tbody> </table> <p>Ok Apply Cancel</p>	Network	IP Address	Interface	Description	XMI (10.240.39.128/25)	10.240.39.154	bond1	<input type="checkbox"/> VLAN (3)	IMI (10.240.38.64/26)	10.240.38.82	bond0	<input checked="" type="checkbox"/> VLAN (4)			
Network	IP Address	Interface	Description														
XMI (10.240.39.128/25)	10.240.39.154	bond1	<input type="checkbox"/> VLAN (3)														
IMI (10.240.38.64/26)	10.240.38.82	bond0	<input checked="" type="checkbox"/> VLAN (4)														
<p>38.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b>  → Configuration  → Servers</p> <p>...as shown on the right.</p>	 <p>Connected using VIP to dts3-sds-b (ACTIVE NETWORK OAM&amp;P)</p> <ul style="list-style-type: none"> <li>Main Menu <ul style="list-style-type: none"> <li>Administration</li> <li>Configuration <ul style="list-style-type: none"> <li>Network Elements</li> <li>Network</li> <li>Services</li> <li>Servers</li> <li>Server Groups</li> <li>Resource Domains</li> <li>Places</li> <li>Place Associations</li> </ul> </li> <li>DSCP</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> </ul> </li> </ul> <p><b>Main Menu: Configuration -&gt; Servers</b></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> </tr> </thead> <tbody> <tr> <td>dts3-sds-b</td> <td>Network OAM&amp;P</td> <td></td> <td>NOAMP_group</td> <td>sds_noamp</td> </tr> <tr> <td>dts3-sds-a</td> <td>Network OAM&amp;P</td> <td></td> <td>NOAMP_group</td> <td>sds_noamp</td> </tr> </tbody> </table> <p>Insert Edit Delete Export Report</p>	Hostname	Role	System ID	Server Group	Network Element	dts3-sds-b	Network OAM&P		NOAMP_group	sds_noamp	dts3-sds-a	Network OAM&P		NOAMP_group	sds_noamp
Hostname	Role	System ID	Server Group	Network Element													
dts3-sds-b	Network OAM&P		NOAMP_group	sds_noamp													
dts3-sds-a	Network OAM&P		NOAMP_group	sds_noamp													

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

Step	Procedure	Result																																																
<p>39.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>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 “<b>MP</b>” role.</p>	 <p><b>Main Menu: Configuration -&gt; Servers</b> Fri Aug 17 13:58:41 2012</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>Server Group</th> <th>Network Element</th> <th>Location</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>sds-mrsvnc-a</td> <td>Network OAM&amp;P</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td></td> <td>XMI: 10.250.55.124 IMI: 169.254.100.11</td> </tr> <tr> <td>sds-mrsvnc-b</td> <td>Network OAM&amp;P</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.128 IMI: 169.254.100.12</td> </tr> <tr> <td>qs-mrsvnc-1</td> <td>Query Server</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.127 IMI: 169.254.100.13</td> </tr> <tr> <td>drds-dallastx-a</td> <td>Network OAM&amp;P</td> <td>drds_dallastx_grp</td> <td>sds_mrsvnc</td> <td>Dallas_TX</td> <td>XMI: 10.250.55.161 IMI: 169.254.100.14</td> </tr> <tr> <td>so-carync-a</td> <td>System OAM</td> <td>so_carync_grp</td> <td>so_carync</td> <td>Cary_NC</td> <td>XMI: 10.240.39.150 IMI: 10.240.38.78</td> </tr> <tr> <td>so-carync-b</td> <td>System OAM</td> <td>so_carync_grp</td> <td>so_carync</td> <td>Cary_NC</td> <td>XMI: 10.240.39.151 IMI: 10.240.38.79</td> </tr> <tr> <td>dp-carync-1</td> <td>MP</td> <td></td> <td>so_carync</td> <td>Cary_NC</td> <td>XMI: 10.240.39.154 IMI: 10.240.38.82</td> </tr> </tbody> </table>	Hostname	Role	Server Group	Network Element	Location	Details	sds-mrsvnc-a	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc		XMI: 10.250.55.124 IMI: 169.254.100.11	sds-mrsvnc-b	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.128 IMI: 169.254.100.12	qs-mrsvnc-1	Query Server	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.127 IMI: 169.254.100.13	drds-dallastx-a	Network OAM&P	drds_dallastx_grp	sds_mrsvnc	Dallas_TX	XMI: 10.250.55.161 IMI: 169.254.100.14	so-carync-a	System OAM	so_carync_grp	so_carync	Cary_NC	XMI: 10.240.39.150 IMI: 10.240.38.78	so-carync-b	System OAM	so_carync_grp	so_carync	Cary_NC	XMI: 10.240.39.151 IMI: 10.240.38.79	dp-carync-1	MP		so_carync	Cary_NC	XMI: 10.240.39.154 IMI: 10.240.38.82
Hostname	Role	Server Group	Network Element	Location	Details																																													
sds-mrsvnc-a	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc		XMI: 10.250.55.124 IMI: 169.254.100.11																																													
sds-mrsvnc-b	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.128 IMI: 169.254.100.12																																													
qs-mrsvnc-1	Query Server	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.127 IMI: 169.254.100.13																																													
drds-dallastx-a	Network OAM&P	drds_dallastx_grp	sds_mrsvnc	Dallas_TX	XMI: 10.250.55.161 IMI: 169.254.100.14																																													
so-carync-a	System OAM	so_carync_grp	so_carync	Cary_NC	XMI: 10.240.39.150 IMI: 10.240.38.78																																													
so-carync-b	System OAM	so_carync_grp	so_carync	Cary_NC	XMI: 10.240.39.151 IMI: 10.240.38.79																																													
dp-carync-1	MP		so_carync	Cary_NC	XMI: 10.240.39.154 IMI: 10.240.38.82																																													
<p>40.</p> <p><input type="checkbox"/></p>	<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 “<b>MP</b>” role should now be highlighted in <b>GREEN</b>.</p> <p>2) Click the “<b>Export</b>” dialogue button from the bottom left corner of the screen.</p>	 <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>Server Group</th> <th>Network Element</th> <th>Location</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>sds-mrsvnc-a</td> <td>Network OAM&amp;P</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td></td> <td>XMI: 10.250.55.124 IMI: 169.254.100.11</td> </tr> <tr> <td>sds-mrsvnc-b</td> <td>Network OAM&amp;P</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.128 IMI: 169.254.100.12</td> </tr> <tr> <td>qs-mrsvnc-1</td> <td>Query Server</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XMI: 10.250.55.127 IMI: 169.254.100.13</td> </tr> <tr> <td>drds-dallastx-a</td> <td>Network OAM&amp;P</td> <td>drds_dallastx_grp</td> <td>sds_mrsvnc</td> <td>Dallas_TX</td> <td>XMI: 10.250.55.161 IMI: 169.254.100.14</td> </tr> <tr> <td>so-carync-a</td> <td>System OAM</td> <td>so_carync_grp</td> <td>so_carync</td> <td>Cary_NC</td> <td>XMI: 10.240.39.150 IMI: 10.240.38.78</td> </tr> <tr> <td>so-carync-b</td> <td>System OAM</td> <td>so_carync_grp</td> <td>so_carync</td> <td>Cary_NC</td> <td>XMI: 10.240.39.151 IMI: 10.240.38.79</td> </tr> <tr> <td>dp-carync-1</td> <td>MP</td> <td></td> <td>so_carync</td> <td>Cary_NC</td> <td>XMI: 10.240.39.154 IMI: 10.240.38.82</td> </tr> </tbody> </table> <p>Buttons: Insert, Delete, <b>Export</b>, Validate</p>	Hostname	Role	Server Group	Network Element	Location	Details	sds-mrsvnc-a	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc		XMI: 10.250.55.124 IMI: 169.254.100.11	sds-mrsvnc-b	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.128 IMI: 169.254.100.12	qs-mrsvnc-1	Query Server	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.127 IMI: 169.254.100.13	drds-dallastx-a	Network OAM&P	drds_dallastx_grp	sds_mrsvnc	Dallas_TX	XMI: 10.250.55.161 IMI: 169.254.100.14	so-carync-a	System OAM	so_carync_grp	so_carync	Cary_NC	XMI: 10.240.39.150 IMI: 10.240.38.78	so-carync-b	System OAM	so_carync_grp	so_carync	Cary_NC	XMI: 10.240.39.151 IMI: 10.240.38.79	dp-carync-1	MP		so_carync	Cary_NC	XMI: 10.240.39.154 IMI: 10.240.38.82
Hostname	Role	Server Group	Network Element	Location	Details																																													
sds-mrsvnc-a	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc		XMI: 10.250.55.124 IMI: 169.254.100.11																																													
sds-mrsvnc-b	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.128 IMI: 169.254.100.12																																													
qs-mrsvnc-1	Query Server	sds_mrsvnc_grp	sds_mrsvnc	Morrisville_NC	XMI: 10.250.55.127 IMI: 169.254.100.13																																													
drds-dallastx-a	Network OAM&P	drds_dallastx_grp	sds_mrsvnc	Dallas_TX	XMI: 10.250.55.161 IMI: 169.254.100.14																																													
so-carync-a	System OAM	so_carync_grp	so_carync	Cary_NC	XMI: 10.240.39.150 IMI: 10.240.38.78																																													
so-carync-b	System OAM	so_carync_grp	so_carync	Cary_NC	XMI: 10.240.39.151 IMI: 10.240.38.79																																													
dp-carync-1	MP		so_carync	Cary_NC	XMI: 10.240.39.154 IMI: 10.240.38.82																																													
<p>41.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>The user will receive a banner information message showing a download link for the “<b>MP</b>” configuration data.</p>	 <p><b>Main Menu: Configuration -&gt; Servers [Export]</b> Wed Dec 14 19:3</p> <p>Filter Info</p> <p>Info</p> <ul style="list-style-type: none"> <li>Exported server data in TKLCConfigData.dp-carync-1.sh may be <a href="#">downloaded</a></li> </ul> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>Server Group</th> <th>Network Element</th> <th>Location</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>sds-mrsvnc-a</td> <td>Network OAM&amp;P</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td></td> <td>XMI: 10.250.55.124 IMI: 169.254.100.11</td> </tr> <tr> <td>sds-mrsvnc-b</td> <td>NETWORK OAM&amp;P</td> <td>10.250.55.1; 169.254.100</td> <td>sds_mrsvnc_grp</td> <td>sds_mrsvnc</td> <td>XMI: 10.250.55.128 IMI: 169.254.100.12</td> </tr> <tr> <td>drds-dallastx-a</td> <td>NETWORK OAM&amp;P</td> <td>10.250.55.1; 169.254.100</td> <td>drds_dallastx_grp</td> <td>dr_dallastx</td> <td>XMI: 10.250.55.161 IMI: 169.254.100.14</td> </tr> </tbody> </table>	Hostname	Role	Server Group	Network Element	Location	Details	sds-mrsvnc-a	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc		XMI: 10.250.55.124 IMI: 169.254.100.11	sds-mrsvnc-b	NETWORK OAM&P	10.250.55.1; 169.254.100	sds_mrsvnc_grp	sds_mrsvnc	XMI: 10.250.55.128 IMI: 169.254.100.12	drds-dallastx-a	NETWORK OAM&P	10.250.55.1; 169.254.100	drds_dallastx_grp	dr_dallastx	XMI: 10.250.55.161 IMI: 169.254.100.14																								
Hostname	Role	Server Group	Network Element	Location	Details																																													
sds-mrsvnc-a	Network OAM&P	sds_mrsvnc_grp	sds_mrsvnc		XMI: 10.250.55.124 IMI: 169.254.100.11																																													
sds-mrsvnc-b	NETWORK OAM&P	10.250.55.1; 169.254.100	sds_mrsvnc_grp	sds_mrsvnc	XMI: 10.250.55.128 IMI: 169.254.100.12																																													
drds-dallastx-a	NETWORK OAM&P	10.250.55.1; 169.254.100	drds_dallastx_grp	dr_dallastx	XMI: 10.250.55.161 IMI: 169.254.100.14																																													
<p>42.</p> <p><input type="checkbox"/></p>	<p>Configure/Export the each additional DP server to be installed for this SOAM site.</p>	<ul style="list-style-type: none"> <li>Repeat <b>Steps 26 - 41</b> of this procedure for each additional <b>DP server</b> installed in the SOAM cabinet.</li> </ul>																																																

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

Step	Procedure	Result
<p>43.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b></p> <p>Click the “Logout” link on the SDS server GUI.</p>	
<p>44.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b></p> <p>1) SSH to the Primary SDS NOAM VIP and access the command prompt.</p> <p>2) Log into the server as the “admusr” user.</p>	<pre>login: admusr Using keyboard-interactive authentication. Password: &lt;admusr_password&gt;</pre>
<p>45.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b></p> <p>Change directory to filemgmt</p>	<pre>\$ cd /var/TKLC/db/filemgmt</pre>
<p>46.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b></p> <p>Attain directory listing. Look for the configuration file(s) that have just been generated for the DP(s). This should appear toward the bottom of the output.</p>	<pre>\$ ls -ltr TKLCConfigData*.sh  *** TRUNCATED OUTPUT *** -rw-rw-rw- 1 root root 2042 Dec 20 10:54 TKLCConfigData.dp-carync-1.sh -rw-rw-rw- 1 root root 2042 Dec 20 10:57 TKLCConfigData.dp-carync-2.sh</pre>
<p>47.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b></p> <p>Use scp to copy the file(s) to the PMAC server.</p>	<pre>\$ scp -p &lt;configuration_file-1&gt; &lt;configuration_file-2&gt; admusr@&lt;PMAC_Mgmt_IP&gt;: /tmp/ Password: &lt;admusr_password&gt; TKLCConfigData.dp-carync-1.sh 100% 1757 1.7KB/s 00:00 TKLCConfigData.dp-carync-2.sh 100% 1757 1.7KB/s 00:00 \$</pre>
<p>48.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b></p> <p>Logout of the Primary SDS CLI.</p>	<pre>\$ exit</pre>
<p>49.</p> <input type="checkbox"/>	<p><b>PMAC Server CLI:</b></p> <p>Use SSH to login to the PMAC Guest VM server as the admusr.</p>	<pre>login: admusr Password: &lt;admusr_password&gt;</pre>

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

Step	Procedure	Result
<p>50.</p> <input type="checkbox"/>	<p><b>PMAC Guest VM:</b></p> <p>Copy the server configuration file to the Control IP for the DP.</p> <p><b>Note:</b> The Control IP for each DP is obtained in <b>Step 15</b> of this procedure.</p>	<pre># scp -p /tmp/&lt;configuration_file&gt; admusr@&lt;DP_Control_IP&gt;:/var/TKLC/db/filemgmt/ Password: &lt;admusr_password&gt; TKLCConfigData.dp-carync-1.sh      100% 1757      1.7KB/s   00:00</pre>
<p>51.</p> <input type="checkbox"/>	<p><b>PMAC Guest VM:</b></p> <p>Connect to the DP server console from the PMAC Server Console.</p>	<pre>\$ ssh &lt;DP_Control_IP&gt; Password: &lt;admusr_password&gt;</pre>
<p>52.</p> <input type="checkbox"/>	<p><b>DP Server:</b></p> <p>Copy the <b>SDS DP</b> configuration file to the <b>"/var/tmp"</b> directory on the server, making sure to rename the file by omitting the server hostname (shown in <b>red</b>) from the file name.</p>	<p><b>Example:</b></p> <p>TKLCConfigData&lt;.server_hostname&gt;.sh → will translate to →TKLCConfigData.sh</p> <pre># 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 <b>/var/tmp</b> directory for the presence of the configuration file and automatically execute it when found.</p>
<p>53.</p> <input type="checkbox"/>	<p><b>DP Server:</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> <pre>Broadcast message from root (Mon Dec 14 15:47:33 2009): Server configuration completed successfully! See /var/TKLC/appw/logs/Process/install.log for details. Please remove the USB flash drive if connected and reboot the server. &lt;ENTER&gt;</pre>

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

Step	Procedure	Result
54. <input type="checkbox"/>	<p><b>DP Server:</b></p> <p>Accept upgrade to the Application Software.</p>	<pre>\$ sudo /var/TKLC/backout/accept Called with options: --accept Loading Upgrade::Backout::RPM Accepting Upgrade Setting POST_UPGRADE_ACTION to ACCEPT in upgrade info. Cleaning backout directory. Clearing Upgrade Accept/Reject alarm. Cleaning message from MOTD. Cleaning up RPM config backup files... Checking / Checking /boot Checking /tmp Checking /usr Checking /var Checking /var/TKLC Checking /tmp/appworks_temp Checking /var/TKLC/appw/logs/Process Checking /var/TKLC/appw/logs/Security Checking /var/TKLC/db/filemgmt Checking /var/TKLC/rundb Starting cleanup of RCS repository. INFO: Removing '/var/lib/prelink/force' from RCS repository INFO: Removing '/etc/my.cnf' from RCS repository</pre>
55.	<p><b>DP Server:</b></p> <p>Verify that the desired Time Zone is currently in use.</p>	<pre>\$ date Mon Aug 10 19:34:51 UTC 2015</pre>
56.	<p><b>DP Server:</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> <i>The following command example sets the time to the "UTC" (aka GMT) time zone which is recommended for all sites. The user may replace, as appropriate, with the customer requested time zone for this site installation. See <b>Appendix H</b> for a list of valid time zones.</i></p> <pre>\$ sudo set_ini_tz.pl "Etc/UTC"</pre>
57. <input type="checkbox"/>	<p><b>DP Server:</b></p> <p>Initiate a reboot of the DP.</p>	<pre>\$ sudo init 6</pre>
58. <input type="checkbox"/>	<p><b>DP Server:</b></p> <p>Output similar to that shown on the right may be observed as the server initiates a reboot.</p>	<pre>\$ Connection to 192.168.1.226 closed by remote host. Connection to 192.168.1.226 closed.</pre>

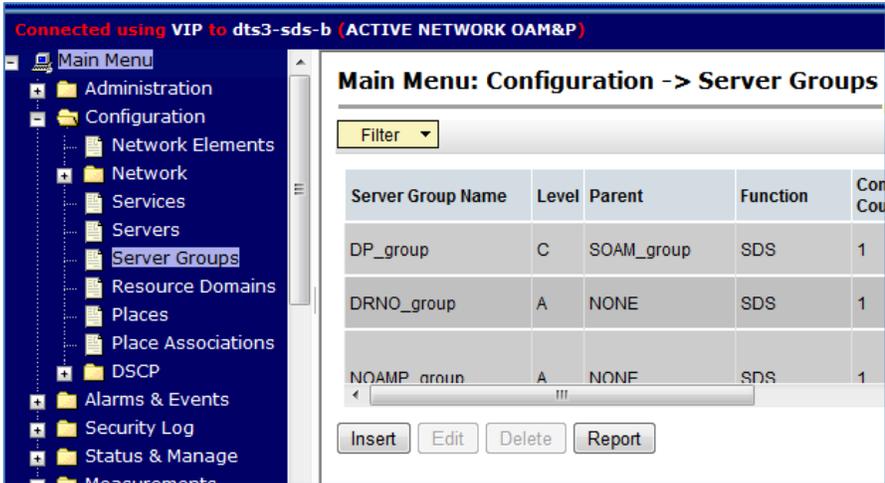
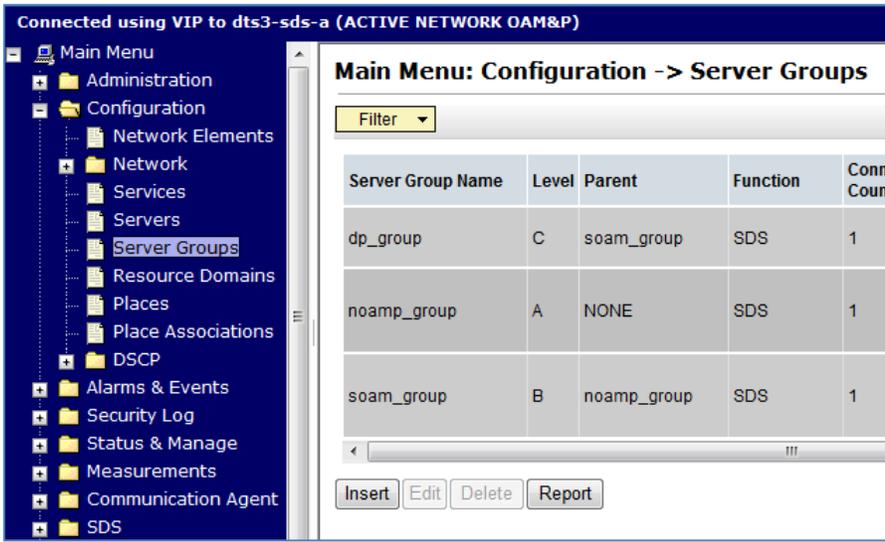
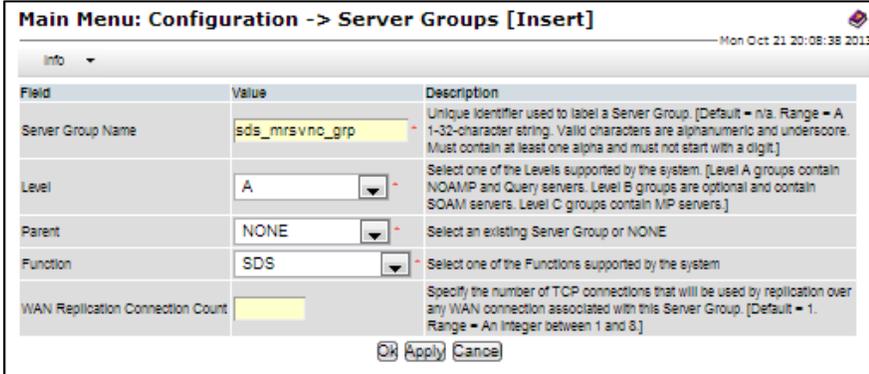
**Procedure 10:** Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
<p>59.</p> <input type="checkbox"/>	<p><b>PMAC Guest VM:</b></p> <p>After the DP server has completed reboot...</p> <p>Re-connect to the DP server console from the PMAC Server Console</p>	<pre># ssh &lt;DP_Control_IP&gt; Password: &lt;admusr_password&gt;</pre>
<p>60.</p> <input type="checkbox"/>	<p><b>DP Server:</b></p> <p>1) Verify that the <b>XMI IP address</b> input in <b>Step 33</b> has been applied to <b>“bond1”</b>.</p> <p>2) Verify that the <b>IMI IP address</b> input in <b>Step 33</b> has been applied to <b>“bond0.4”</b>.</p> <p><b>NOTE:</b> Exact bond configuration may vary for custom network implementations.</p>	<pre># ifconfig  grep in bond0   Link encap:Ethernet  HWaddr B4:99:BA:AC:BD:64         inet addr:192.168.1.226 Bcast:192.168.1.255         Mask:255.255.255.0 bond0.4 Link encap:Ethernet  HWaddr B4:99:BA:AC:BD:64         inet addr:10.240.38.82 Bcast:10.240.38.127         Mask:255.255.255.192 bond1   Link encap:Ethernet  HWaddr B4:99:BA:AC:BD:64         inet addr:10.240.39.154 Bcast:10.240.39.255         Mask:255.255.255.128 eth01   Link encap:Ethernet  HWaddr B4:99:BA:AC:BD:64 eth02   Link encap:Ethernet  HWaddr B4:99:BA:AC:BD:64 lo      Link encap:Local Loopback         inet addr:127.0.0.1  Mask:255.0.0.0</pre>
<p>61.</p> <input type="checkbox"/>	<p><b>DP Server:</b></p> <p>From the <b>DP Server</b>, <b>“ping”</b> the <b>IMI IP address</b> of the <b>SOAM-A Guest</b>.</p>	<pre>\$ ping -c 5 10.240.38.78 PING 10.240.38.78 (10.240.38.78) 56(84) bytes of data. 64 bytes from 10.240.38.78: icmp_seq=1 ttl=64 time=0.031 ms 64 bytes from 10.240.38.78: icmp_seq=2 ttl=64 time=0.017 ms 64 bytes from 10.240.38.78: icmp_seq=3 ttl=64 time=0.031 ms 64 bytes from 10.240.38.78: icmp_seq=4 ttl=64 time=0.028 ms 64 bytes from 10.240.38.78: icmp_seq=5 ttl=64 time=0.030 ms 64 bytes from 10.240.38.78: icmp_seq=6 ttl=64 time=0.028 ms  --- 10.240.38.78 ping statistics --- 6 packets transmitted, 6 received, 0% packet loss, time 5000ms rtt min/avg/max/mdev = 0.017/0.027/0.031/0.007 ms</pre>

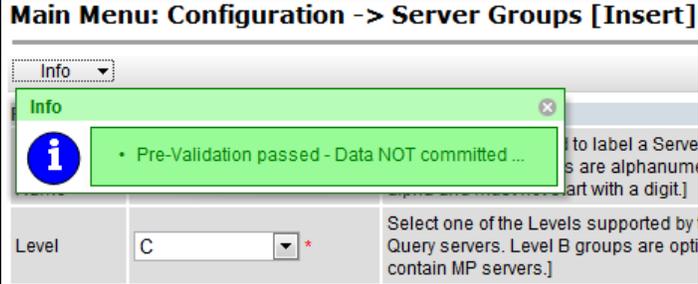
**Procedure 10:** Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
<p>62.</p> <input type="checkbox"/>	<p><b>DP Server:</b></p> <p>From the <b>DP Server</b>, “ping” the local <b>XMI Gateway address</b> associated with the SOAM NE.</p>	<pre>\$ ping -c 5 10.240.39.1 PING 10.240.39.1 (10.240.39.1) 56(84) bytes of data. 64 bytes from 10.240.39.1: icmp_seq=1 ttl=64 time=0.024 ms 64 bytes from 10.240.39.1: icmp_seq=2 ttl=64 time=0.033 ms 64 bytes from 10.240.39.1: icmp_seq=3 ttl=64 time=0.032 ms 64 bytes from 10.240.39.1: icmp_seq=4 ttl=64 time=0.026 ms 64 bytes from 10.240.39.1: icmp_seq=5 ttl=64 time=0.027 ms 64 bytes from 10.240.39.1: icmp_seq=6 ttl=64 time=0.026 ms  --- 10.240.39.1 ping statistics --- 6 packets transmitted, 6 received, 0% packet loss, time 5004ms rtt min/avg/max/mdev = 0.024/0.028/0.033/0.003 ms</pre>
<p>63.</p> <input type="checkbox"/>	<p><b>DP Server:</b></p> <p>Use the “ntpq” command to verify connectivity to the assigned Primary and Secondary NTP server(s).</p>	<pre>\$ ntpq -np       remote                refid          st t when poll reach  delay  offset  jitter ===== +10.250.32.10  192.5.41.209  2 u  139 1024   377   2.008   1.006   1.049 *10.250.32.51  192.5.41.209  2 u  979 1024   377   0.507   1.664   0.702</pre>
<p>64.</p> <input type="checkbox"/>	<p><b>DP Server:</b></p> <p>Execute a “syscheck” to verify the current health of the server.</p>	<pre>\$ sudo syscheck Running modules in class hardware...   OK Running modules in class disk...   OK Running modules in class net...   OK Running modules in class system...   OK Running modules in class proc...   OK LOG LOCATION: /var/TKLC/log/syscheck/fail_log</pre>
<p>65.</p> <input type="checkbox"/>	<p><b>DP Server:</b></p> <p>Exit from the command line to return the server console to the login prompt.</p>	<pre># exit Connection to 192.168.1.199 closed.</pre>
<p>66.</p> <input type="checkbox"/>	<p>Apply the configuration file for each additional DP server installed at the SOAM site.</p>	<ul style="list-style-type: none"> <li>Repeat Steps 50 - 65 of this procedure for each subtending DP server installed in the same SOAM enclosure.</li> </ul>
<p>67.</p> <input type="checkbox"/>	<p><b>PMAC Guest VM:</b></p> <p>Exit from the PMAC server.</p>	<pre># exit</pre>

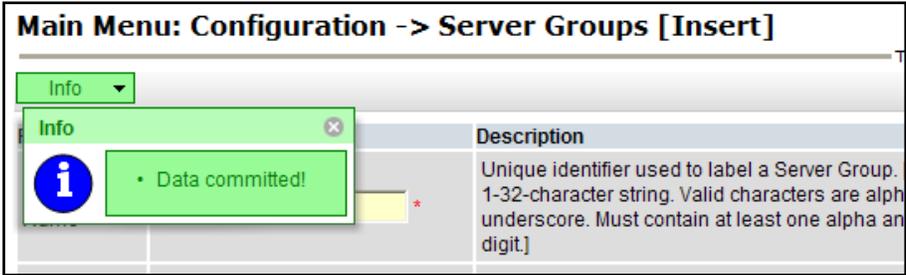
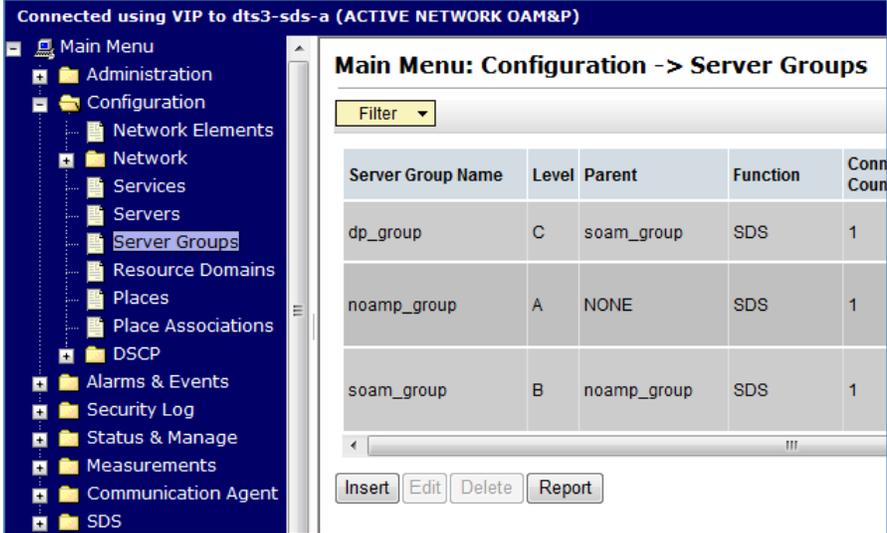
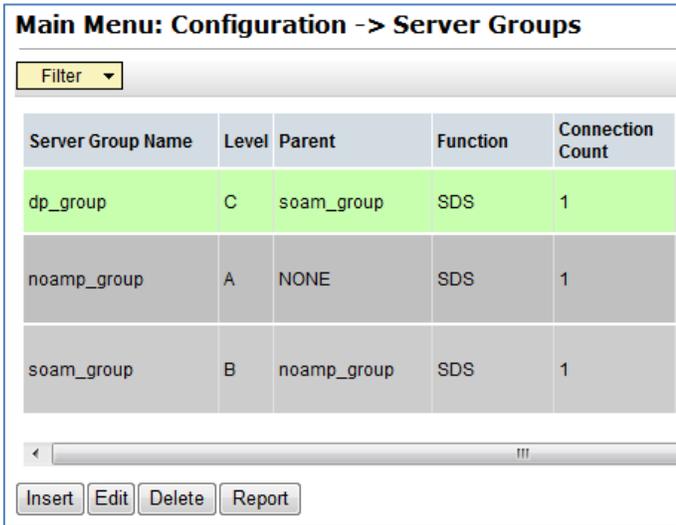
**Procedure 10:** Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
<p>68.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b>                      → <b>Configuration</b>                      → <b>Server Groups</b></p> <p>...as shown on the right.</p>	
<p>69.</p> <p><input type="checkbox"/></p>	<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>70.</p> <p><input type="checkbox"/></p>	<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>	

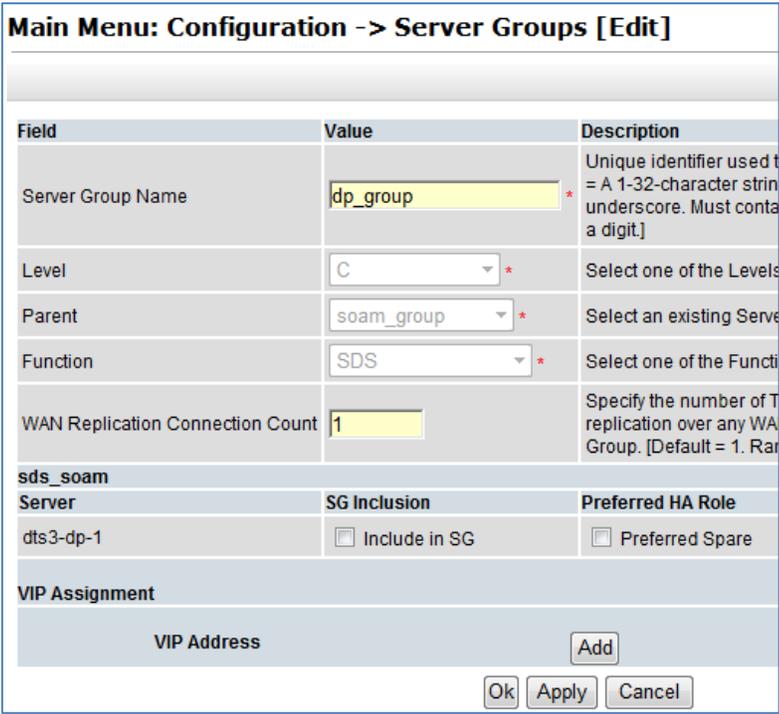
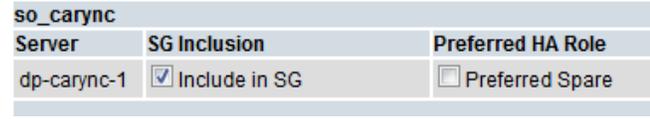
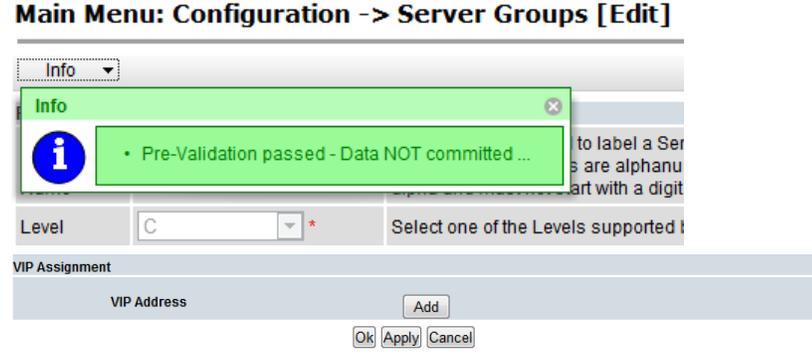
**Procedure 10:** Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result									
<p>71.</p> <p><input type="checkbox"/></p>	<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_carync_1_grp *</td> <td>Unique identifier used to label a Server Group character string. Valid characters are alphanumeric and must contain at least one alpha and must not start with a digit.</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_carync_1_grp *	Unique identifier used to label a Server Group character string. Valid characters are alphanumeric and must contain at least one alpha and must not start with a digit.			
Field	Value	Description									
Server Group Name	dp_carync_1_grp *	Unique identifier used to label a Server Group character string. Valid characters are alphanumeric and must contain at least one alpha and must not start with a digit.									
<p>72.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Select <b>“C”</b> on the <b>“Level”</b> pull-down menu.</p>	<table border="1"> <tbody> <tr> <td>Level</td> <td>- Select Level - *</td> <td>Select one of the Levels supported by the system. [Level A groups contain NOAMP and Query servers. Level B groups are optional and contain SOAM servers. Level C groups contain MP servers.]</td> </tr> <tr> <td>Parent</td> <td>B C *</td> <td>Select an existing Server Group or NONE</td> </tr> </tbody> </table>	Level	- Select Level - *	Select one of the Levels supported by the system. [Level A groups contain NOAMP and Query servers. Level B groups are optional and contain SOAM servers. Level C groups contain MP servers.]	Parent	B C *	Select an existing Server Group or NONE			
Level	- Select Level - *	Select one of the Levels supported by the system. [Level A groups contain NOAMP and Query servers. Level B groups are optional and contain SOAM servers. Level C groups contain MP servers.]									
Parent	B C *	Select an existing Server Group or NONE									
<p>73.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Select <b>System OAM group</b> on the <b>“Parent”</b> pull-down menu.</p>	<table border="1"> <tbody> <tr> <td>Parent</td> <td>- Select Parent - *</td> <td>Select an existing Server Group or NONE</td> </tr> <tr> <td>Function</td> <td>- Select Parent - sds_mrsync_grp so_carync_grp *</td> <td>Select one of the Functions supported by the system</td> </tr> </tbody> </table> <p>Ok Apply Cancel</p>	Parent	- Select Parent - *	Select an existing Server Group or NONE	Function	- Select Parent - sds_mrsync_grp so_carync_grp *	Select one of the Functions supported by the system			
Parent	- Select Parent - *	Select an existing Server Group or NONE									
Function	- Select Parent - sds_mrsync_grp so_carync_grp *	Select one of the Functions supported by the system									
<p>74.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Select <b>“SDS”</b> on the <b>“Function”</b> pull-down menu.</p>	<table border="1"> <tbody> <tr> <td>Function</td> <td>SDS - Select Function - NONE SDS *</td> <td>Select one of the Functions supported by the system</td> </tr> </tbody> </table> <p>Ok Apply Cancel</p>	Function	SDS - Select Function - NONE SDS *	Select one of the Functions supported by the system						
Function	SDS - Select Function - NONE SDS *	Select one of the Functions supported by the system									
<p>75.</p> <p><input type="checkbox"/></p>	<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>  <table border="1"> <tbody> <tr> <td>Parent</td> <td>so_carync_grp *</td> <td>Select an existing Server Group or NONE</td> </tr> <tr> <td>Function</td> <td>SDS *</td> <td>Select one of the Functions supported by the system</td> </tr> <tr> <td>WAN Replication Connection Count</td> <td></td> <td>Specify the number of TCP connections associated with this Server Group</td> </tr> </tbody> </table> <p>Ok Apply Cancel</p>	Parent	so_carync_grp *	Select an existing Server Group or NONE	Function	SDS *	Select one of the Functions supported by the system	WAN Replication Connection Count		Specify the number of TCP connections associated with this Server Group
Parent	so_carync_grp *	Select an existing Server Group or NONE									
Function	SDS *	Select one of the Functions supported by the system									
WAN Replication Connection Count		Specify the number of TCP connections associated with this Server Group									

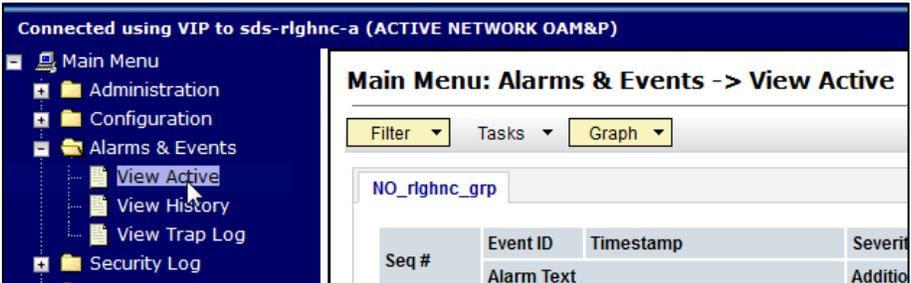
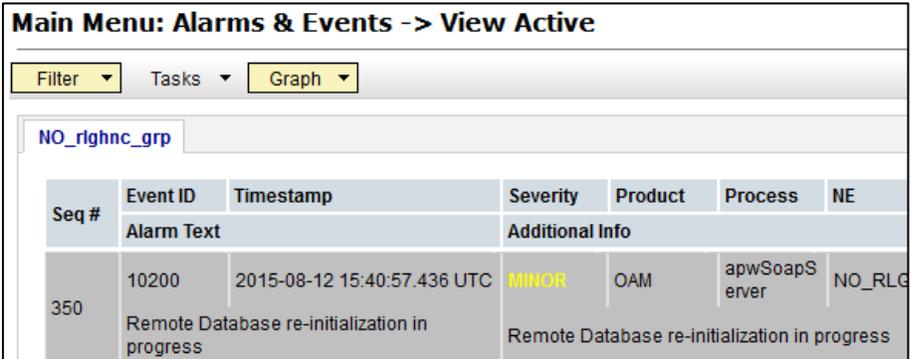
**Procedure 10:** Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																				
<p>76.</p> <p><input type="checkbox"/></p>	<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>77.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>1) Select... <b>Main Menu</b> → <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>Function</th> <th>Conn Count</th> </tr> </thead> <tbody> <tr> <td>dp_group</td> <td>C</td> <td>soam_group</td> <td>SDS</td> <td>1</td> </tr> <tr> <td>noamp_group</td> <td>A</td> <td>NONE</td> <td>SDS</td> <td>1</td> </tr> <tr> <td>soam_group</td> <td>B</td> <td>noamp_group</td> <td>SDS</td> <td>1</td> </tr> </tbody> </table>	Server Group Name	Level	Parent	Function	Conn Count	dp_group	C	soam_group	SDS	1	noamp_group	A	NONE	SDS	1	soam_group	B	noamp_group	SDS	1
Server Group Name	Level	Parent	Function	Conn Count																		
dp_group	C	soam_group	SDS	1																		
noamp_group	A	NONE	SDS	1																		
soam_group	B	noamp_group	SDS	1																		
<p>78.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>1) Using the mouse, select the MP Server Group associated with the <b>DP</b> being installed.</p> <p>2) Select the <b>“Edit”</b> dialogue button from the bottom left corner of the screen.</p>																					

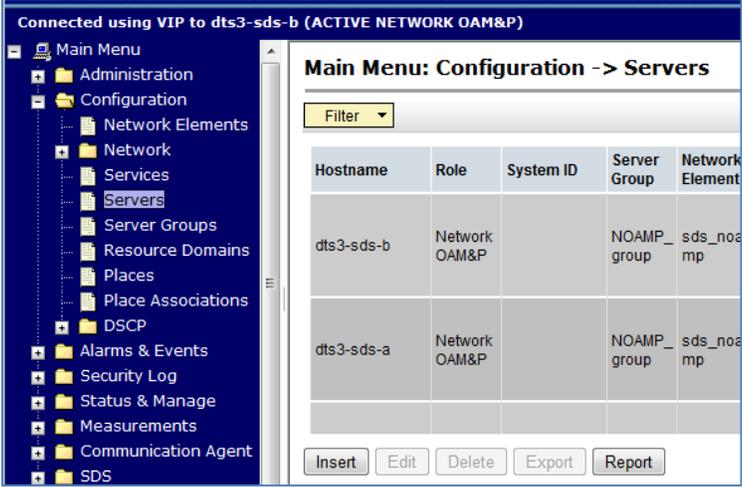
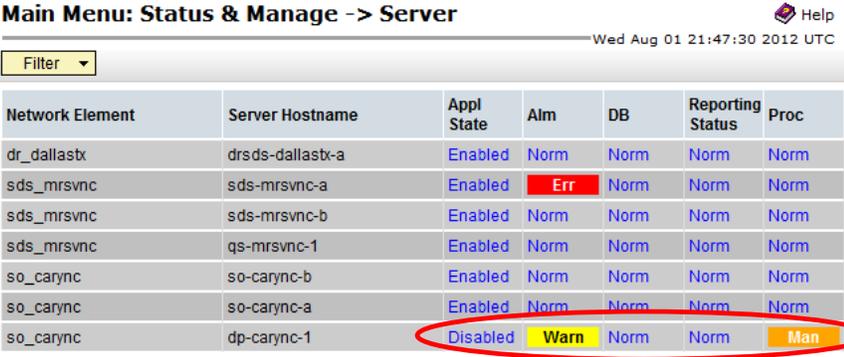
**Procedure 10:** Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
<p>79.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>The user will be presented with the “<b>Configuration → Server Groups [Edit]</b>” screen as shown on the right</p>	
<p>80.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Select the “<b>DP</b>” server from the list of “<b>Servers</b>” by clicking the check box next its name.</p>	
<p>81.</p> <p><input type="checkbox"/></p>	<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>	

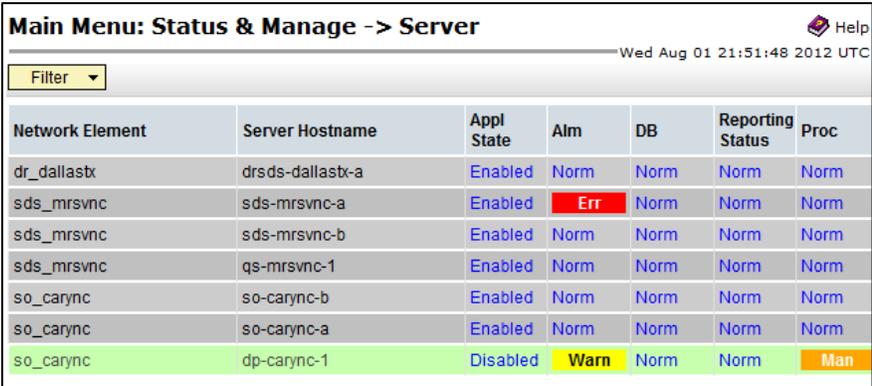
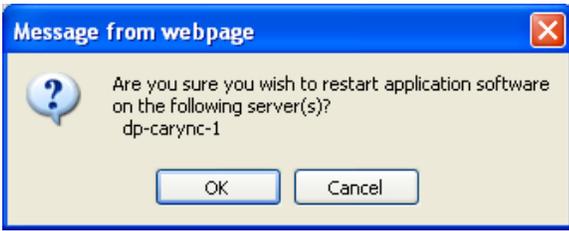
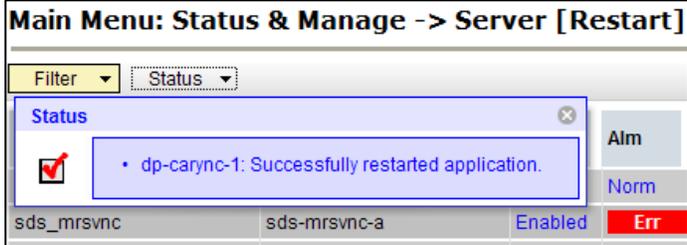
**Procedure 10:** Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																												
<p>82.</p> <p><input type="checkbox"/></p>	<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> 																												
<p>83.</p> <p><input type="checkbox"/></p>	<p>Place each additional DP Server into its respective DP Server Group.</p>	<ul style="list-style-type: none"> <li>Repeat <b>Steps 68 - 82</b> of this procedure for each subtending <b>DP</b> server installed in the same SOAM enclosure, <i>using a unique group for each DP</i>.</li> </ul>																												
<p>84.</p> <p><b>Primary SDS VIP:</b></p> <p>Select...</p> <p><u>Main Menu</u>                  → Alarms &amp; Events                  → View Active</p> <p>...as shown on the right.</p>																														
<p>85.</p> <p><b>Primary SDS VIP:</b></p> <p>Verify that <b>Event ID 10200</b> (<i>Remote Database re-initialization in progress</i>) alarms are present with the <b>DP Server hostnames</b> in the <b>“Instance”</b> field..</p>		<p><b>Main Menu: Alarms &amp; Events -&gt; View Active</b></p>  <table border="1"> <thead> <tr> <th>Seq #</th> <th>Event ID</th> <th>Timestamp</th> <th>Severity</th> <th>Product</th> <th>Process</th> <th>NE</th> </tr> </thead> <tbody> <tr> <td>350</td> <td>10200</td> <td>2015-08-12 15:40:57.436 UTC</td> <td>MINOR</td> <td>OAM</td> <td>apwSoapServer</td> <td>NO_RL...</td> </tr> <tr> <td colspan="2">Alarm Text</td> <td colspan="5">Additional Info</td> </tr> <tr> <td colspan="2">Remote Database re-initialization in progress</td> <td colspan="5">Remote Database re-initialization in progress</td> </tr> </tbody> </table>	Seq #	Event ID	Timestamp	Severity	Product	Process	NE	350	10200	2015-08-12 15:40:57.436 UTC	MINOR	OAM	apwSoapServer	NO_RL...	Alarm Text		Additional Info					Remote Database re-initialization in progress		Remote Database re-initialization in progress				
Seq #	Event ID	Timestamp	Severity	Product	Process	NE																								
350	10200	2015-08-12 15:40:57.436 UTC	MINOR	OAM	apwSoapServer	NO_RL...																								
Alarm Text		Additional Info																												
Remote Database re-initialization in progress		Remote Database re-initialization in progress																												
<div style="display: flex; align-items: center;">  <p><b>MONITOR THE EVENT ID 10200 (<i>Remote Database re-initialization in progress</i>) ALARMS. DO NOT PROCEED TO THE NEXT STEP UNTIL THE ALARM CLEAR IS RECEIVED FOR ALL DP SERVERS.</b></p> </div>																														

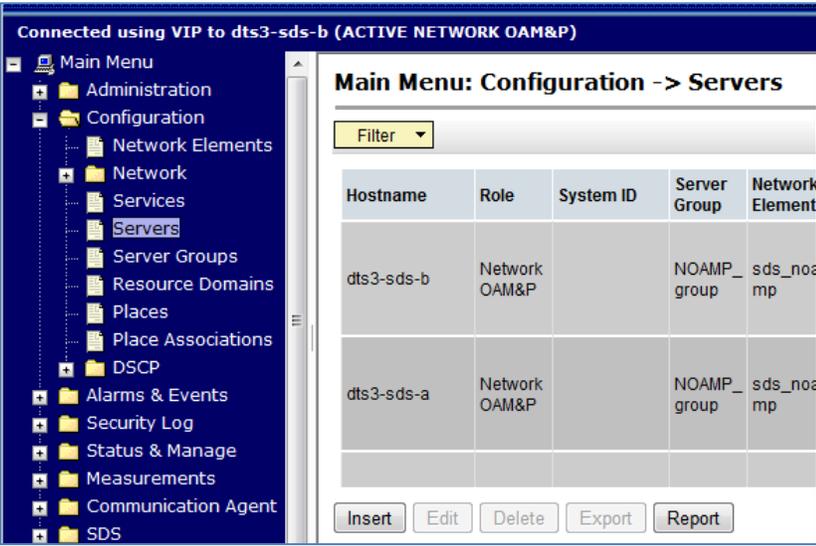
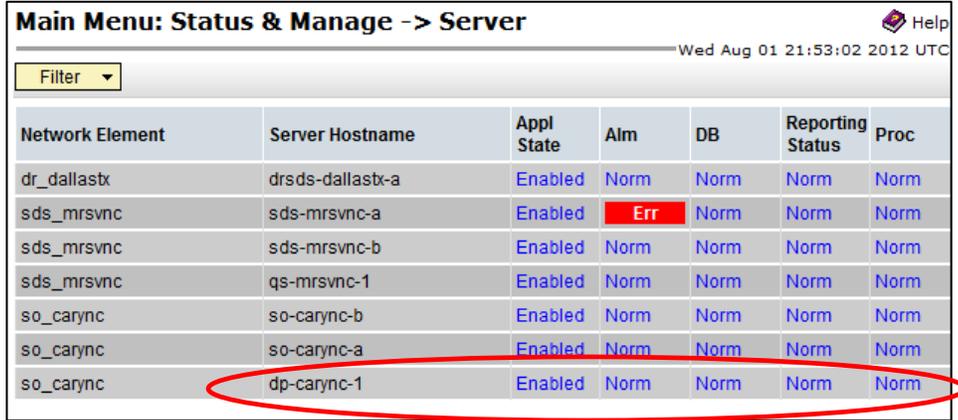
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
<p>86.</p> <p><input type="checkbox"/></p>	<p><b>Primary 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>	
<p>87.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Verify that the “<b>DB &amp; Reporting</b>” status columns all show “<b>Norm</b>” for the <b>DP</b> at this point. The “<b>Proc</b>” column should show “<b>Man</b>”.</p>	

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

Step	Procedure	Result																																																												
<p><b>88.</b></p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>1) Using the mouse, select the “DP” hostname. The line entry should now be highlighted in <b>GREEN</b>.</p> <p>2) Select the “Restart” dialogue button from the bottom left corner of the screen.</p> <p>3) Click the “OK” button on the confirmation dialogue box.</p> <p>4) The user should be presented with a confirmation message (in the banner area) for the “DP” stating: <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 “Restart” dialogue button visible.</p>	 <p><b>Main Menu: Status &amp; Manage -&gt; Server</b></p> <p>Wed Aug 01 21:51:48 2012 UTC</p> <table border="1"> <thead> <tr> <th>Network Element</th> <th>Server Hostname</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>dr_dallastx</td> <td>drds-dallastx-a</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-a</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-b</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>sds_mrsvnc</td> <td>qs-mrsvnc-1</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>so_carync</td> <td>so-carync-b</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>so_carync</td> <td>so-carync-a</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>so_carync</td> <td>dp-carync-1</td> <td>Disabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> </tbody> </table>    <p><b>Main Menu: Status &amp; Manage -&gt; Server [Restart]</b></p> <p>Filter Status</p> <p>Status</p> <ul style="list-style-type: none"> <li>dp-carync-1: Successfully restarted application.</li> </ul> <table border="1"> <tbody> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-a</td> <td>Enabled</td> <td>Err</td> </tr> </tbody> </table>	Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc	dr_dallastx	drds-dallastx-a	Enabled	Norm	Norm	Norm	Norm	sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm	sds_mrsvnc	sds-mrsvnc-b	Enabled	Norm	Norm	Norm	Norm	sds_mrsvnc	qs-mrsvnc-1	Enabled	Norm	Norm	Norm	Norm	so_carync	so-carync-b	Enabled	Norm	Norm	Norm	Norm	so_carync	so-carync-a	Enabled	Norm	Norm	Norm	Norm	so_carync	dp-carync-1	Disabled	Warn	Norm	Norm	Man	sds_mrsvnc	sds-mrsvnc-a	Enabled	Err
Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc																																																								
dr_dallastx	drds-dallastx-a	Enabled	Norm	Norm	Norm	Norm																																																								
sds_mrsvnc	sds-mrsvnc-a	Enabled	Err	Norm	Norm	Norm																																																								
sds_mrsvnc	sds-mrsvnc-b	Enabled	Norm	Norm	Norm	Norm																																																								
sds_mrsvnc	qs-mrsvnc-1	Enabled	Norm	Norm	Norm	Norm																																																								
so_carync	so-carync-b	Enabled	Norm	Norm	Norm	Norm																																																								
so_carync	so-carync-a	Enabled	Norm	Norm	Norm	Norm																																																								
so_carync	dp-carync-1	Disabled	Warn	Norm	Norm	Man																																																								
sds_mrsvnc	sds-mrsvnc-a	Enabled	Err																																																											

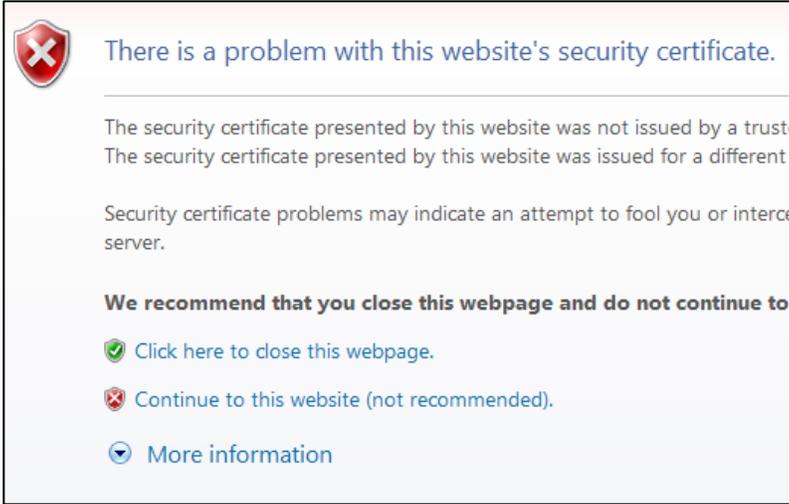
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
<p>89.</p> <p><input type="checkbox"/></p>	<p><b>Primary 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>	
<p>90.</p> <p><input type="checkbox"/></p>	<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 the “<b>DP</b>”.</p>	
<p>91.</p> <p><input type="checkbox"/></p>	<p>Repeat this procedure for each additional DP Server.</p>	<ul style="list-style-type: none"> <li>Repeat <b>Steps 86 - 90</b> of this procedure for each additional <b>DP</b> server installed in the SOAM cabinet.</li> </ul>
<p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>		

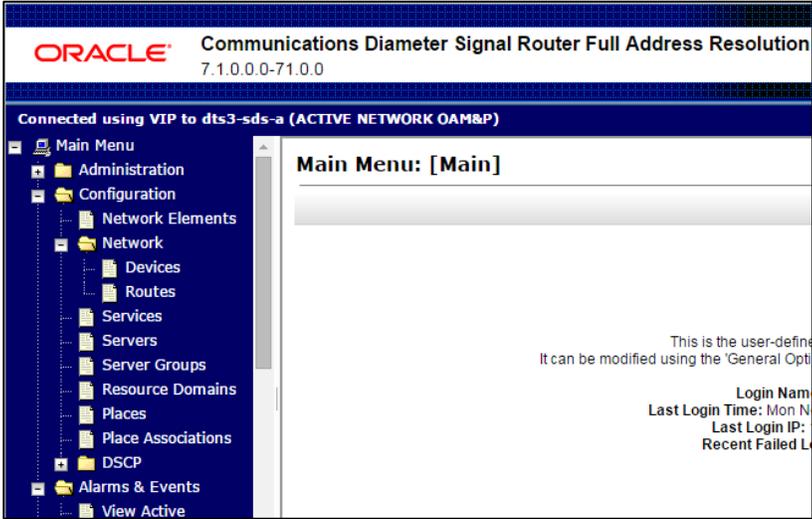
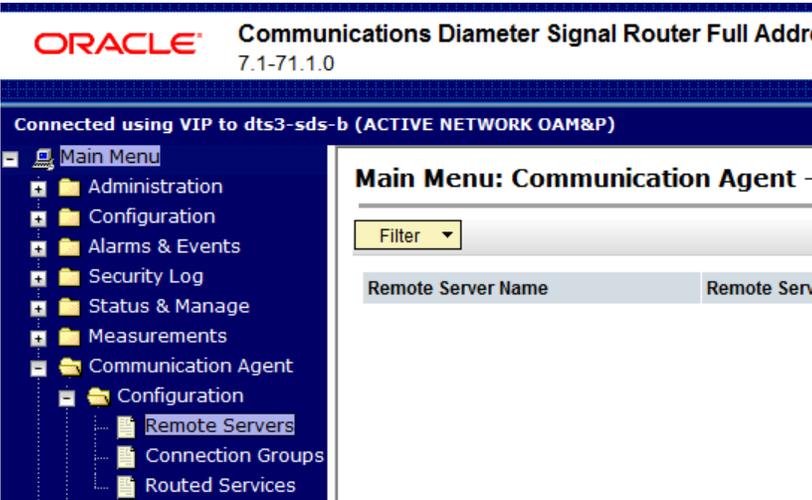
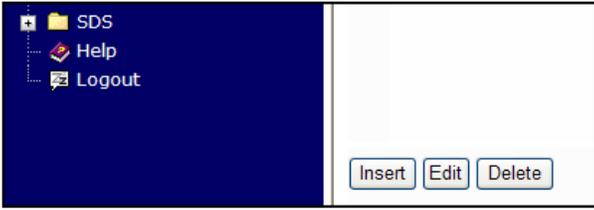
### 5.10 Configuring ComAgent

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

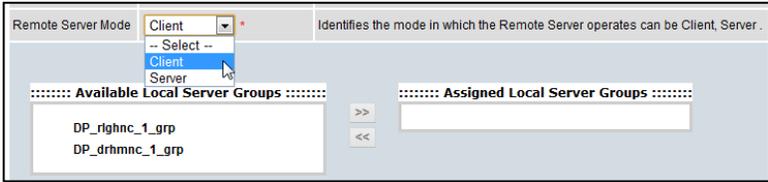
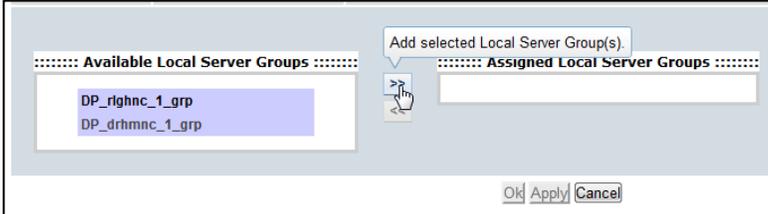
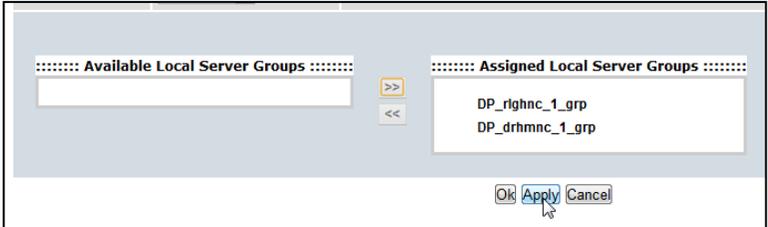
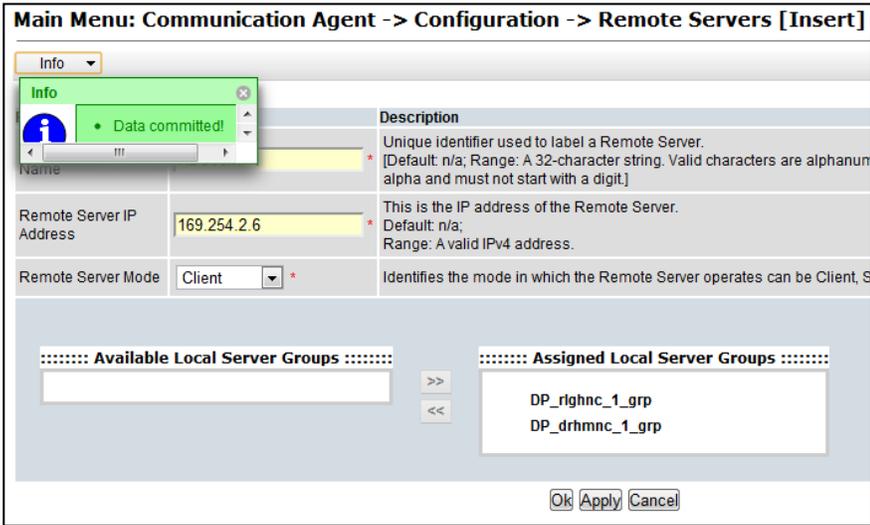
**Procedure 11:** Configuring comAgent (All SOAM sites)

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

Procedure 11: Configuring comAgent (All SOAM sites)

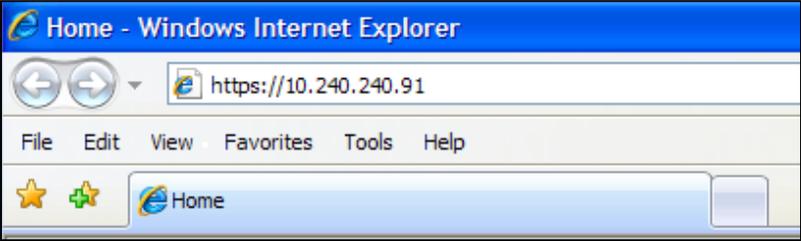
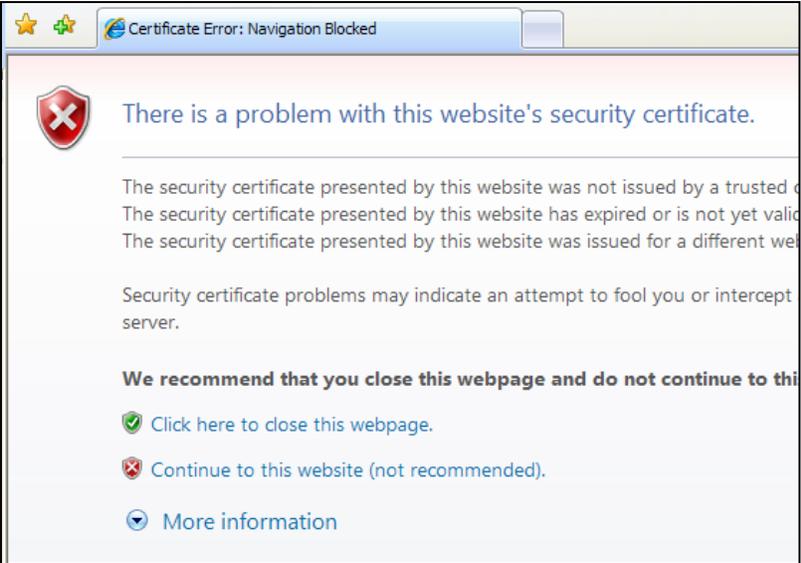
<p>3.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>The user should be presented the SDS Main Menu as shown on the right.</p>							
<p>4.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b></p> <ul style="list-style-type: none"> <li>→Communication Agent</li> <li>→Configuration</li> <li>→Remote Servers</li> </ul> <p>...as shown on the right.</p>							
<p>5.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Select the "Insert" dialogue button</p>							
<p>6.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Enter the "Remote Server Name" for the DSR Message Processor server</p>	<table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Remote Server Name</td> <td>RDU08MP1 *</td> <td>Unique identifier used to label a Remote Server. [Default: n/a; Range: A 32-character string. Valid underscore. Must contain at least one alpha and</td> </tr> </tbody> </table>	Field	Value	Description	Remote Server Name	RDU08MP1 *	Unique identifier used to label a Remote Server. [Default: n/a; Range: A 32-character string. Valid underscore. Must contain at least one alpha and
Field	Value	Description						
Remote Server Name	RDU08MP1 *	Unique identifier used to label a Remote Server. [Default: n/a; Range: A 32-character string. Valid underscore. Must contain at least one alpha and						
<p>7.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Enter the "Remote Server IMI IP Address".</p>	<table border="1"> <tbody> <tr> <td>Remote Server IP Address</td> <td>169.254.2.6 *</td> <td>This is the IP address of the Remote Server. Default: n/a; Range: A valid IPv4 address.</td> </tr> </tbody> </table> <p><b>NOTE:</b> This should be the IMI IP address of the MP blade.</p>	Remote Server IP Address	169.254.2.6 *	This is the IP address of the Remote Server. Default: n/a; Range: A valid IPv4 address.			
Remote Server IP Address	169.254.2.6 *	This is the IP address of the Remote Server. Default: n/a; Range: A valid IPv4 address.						

Procedure 11: Configuring comAgent (All SOAM sites)

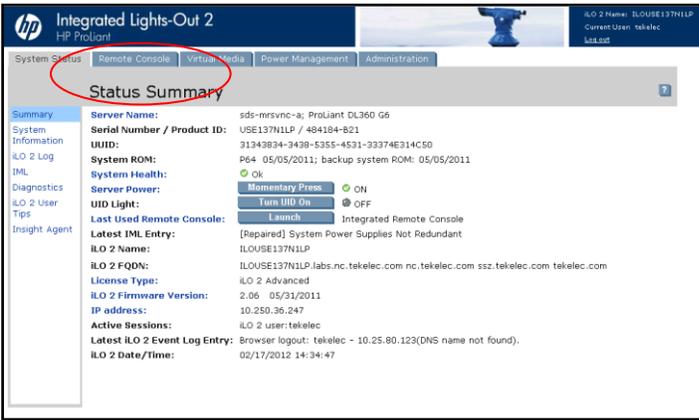
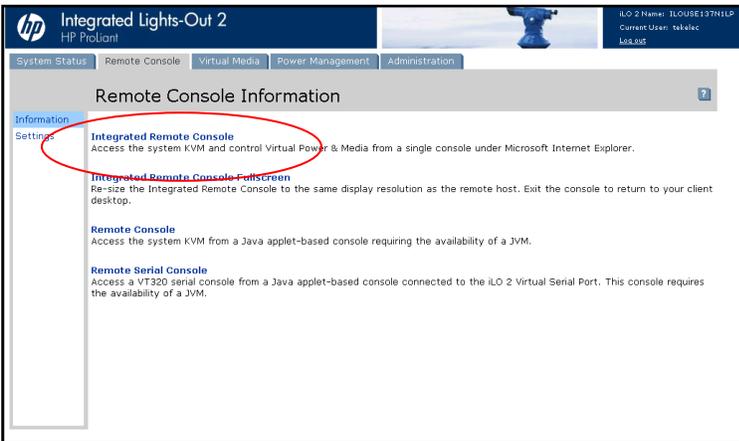
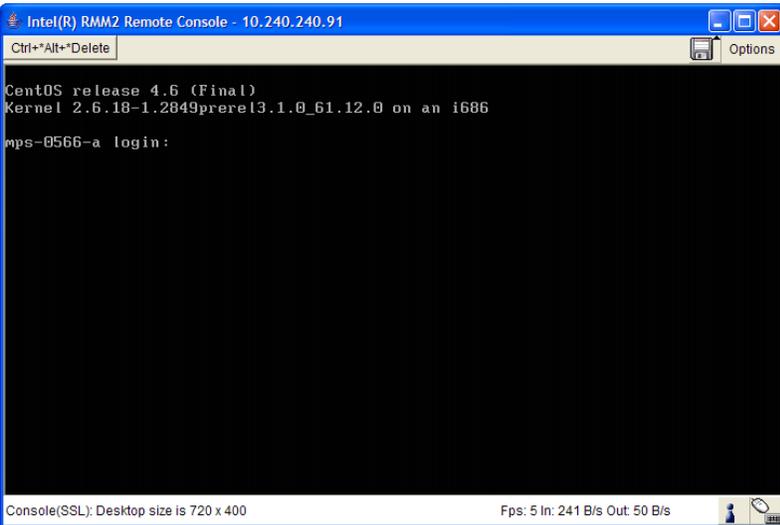
<p>8.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Select “Client” for the <b>Remote Server Mode</b> from the pull-down menu.</p>	
<p>9.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Select the <b>Local Server Group</b> for the SDS Data Processor server group</p>	
<p>10.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Click the “Apply” dialogue button</p>	
<p>11.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Under the “Info” banner option, the user should be presented with a message stating “Data committed”</p>	
<p>12.</p> <p><input type="checkbox"/></p>	<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>	
<p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>		

## Appendix A. ACCESSING THE ILO VGA REDIRECTION WINDOW

### Appendix A: Accessing the iLO VGA Redirection Window

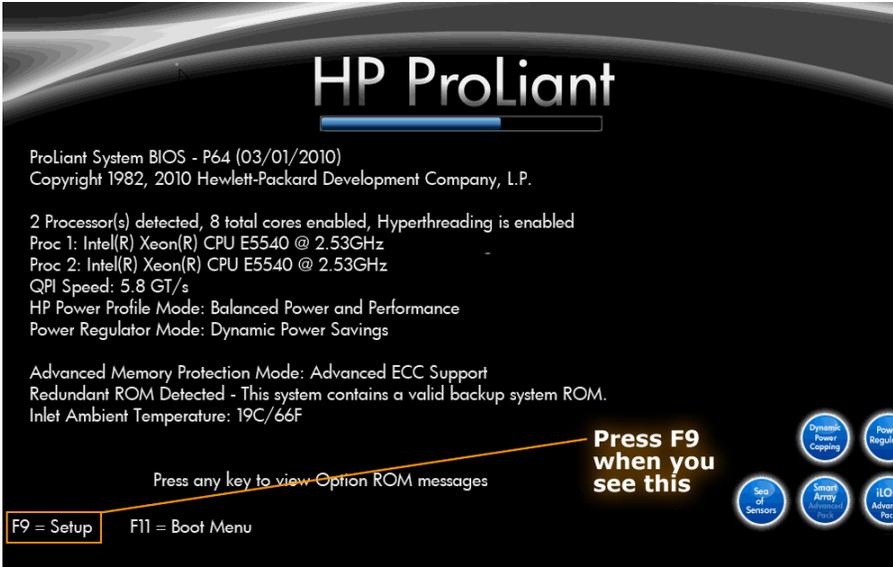
Step	Procedure	Result
<p>1.</p> <input type="checkbox"/>	<p>Launch an approved web browser and connect to the iLO interface</p> <p><b>NOTE:</b> Always use <i>https://</i> for iLO GUI access.</p>	
<p>2.</p> <input type="checkbox"/>	<p>The web browser will display a warning message regarding the Security Certificate.</p> <p><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>	
<p>3.</p> <input type="checkbox"/>	<p>Login to the iLO console as "admin"</p>	

Appendix A: Accessing the iLO VGA Redirection Window

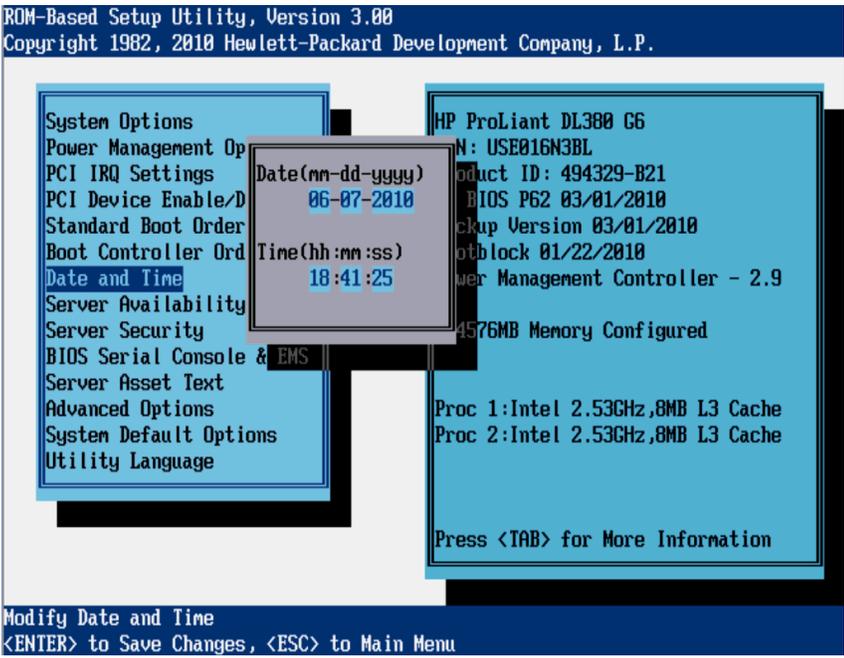
<p>4.</p> <p><input type="checkbox"/></p>	<p>The admin GUI is displayed.</p> <p>Select the “<b>Remote Console</b>” tab in the upper left corner of the GUI.</p>	
<p>5.</p> <p><input type="checkbox"/></p>	<p>The Remote Console Information GUI is displayed</p> <p>Click on the “<b>Integrated Remote Console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

## Appendix B. HP DL360/DL 380 BIOS SETTINGS

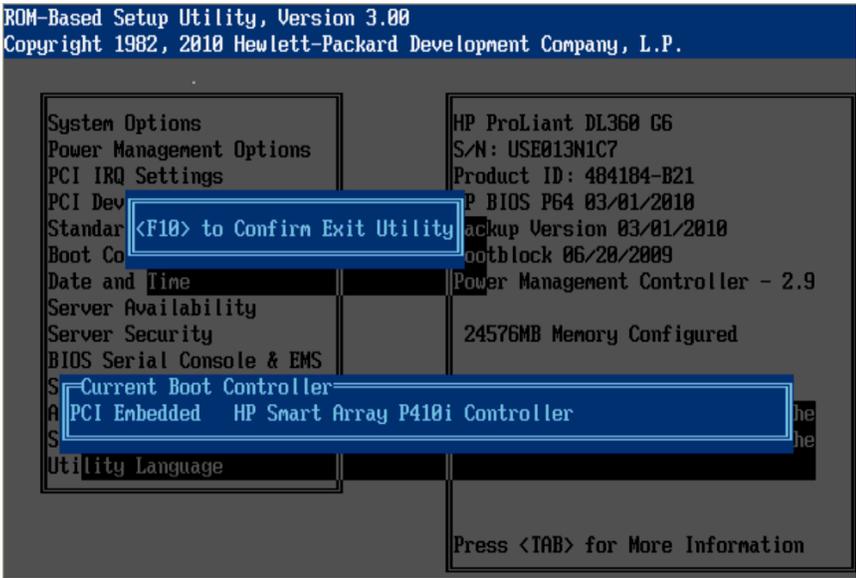
### Appendix B: HP DL360 BIOS Settings

Step	In this procedure you will configure BIOS settings and IPM each HP DL360 G6 server under test.	
<p>1.</p> <input type="checkbox"/>	<p>Insert TPD Media into the server under test.</p>	<p>Open the CD/DVD media drive in the server to be tested. Insert the TPD media into the optical drive. The KVM should be connected and the screen for the server to be tested ready.</p>
<p>2.</p> <input type="checkbox"/>	<p>Access the Server BIOS</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 [F9] 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>

Appendix B: HP DL360 BIOS Settings

<p>3.</p> <p><input type="checkbox"/></p>	<p>Set DL360 Server CMOS Clock</p>	<p>Scroll to <i>Date and Time</i> and press [ENTER]</p> <p>Set the date and time and press [ENTER].</p>  <p><b>Expected Result:</b> Correct Time &amp; Date is set.</p>
<p>4.</p> <p><input type="checkbox"/></p>	<p>Configure iLO serial port settings</p>	<p>The serial ports on HP DL360 G6 rack mount servers need to be configured so the serial port used by the BIOS and TPD are connected to the “VSP” on the iLO. This will allow the remote administration of the servers without the need for external terminal servers. If this configuration has not been completed correctly and the server rebooted, the syscheck “syscheck -v hardware serial” test will fail.</p> <p>Select System Options option and press [ENTER].</p> <p>Select Serial Port Options option and press [ENTER].</p> <p>Change Embedded Serial Port to COM2 and press [ENTER].</p> <p>Change Virtual Serial Port to COM1 and press [ENTER].</p> <p>Press &lt;ESC&gt; two times</p>

Appendix B: HP DL360 BIOS Settings

<p>5.</p> <p><input type="checkbox"/></p>	<p>Configure Power Management Options settings</p>	<p><b>The Power Management Options on HP DL360 G6 rack mount servers used in SDM need to be configured for optimum SDM software performance.</b></p> <p>Select Power Management Options option and press [ENTER].</p> <p>Select HP Power Profile option and press [ENTER].</p> <p>Change it to Maximum Performance and press [ENTER].</p> <p>Press &lt;ESC&gt; two times</p>
<p>6.</p> <p><input type="checkbox"/></p>	<p>Save Configuration and Exit</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>
<p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>		

**NOTE:** These settings are current as of ORACLE Communications Document 820-6641-01, Revision B. (Manufacturing Acceptance Test Plan, Subscriber Data Management Rack Mount Servers) [4]. Please refer to the latest revision for current values.

## Appendix C. 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.

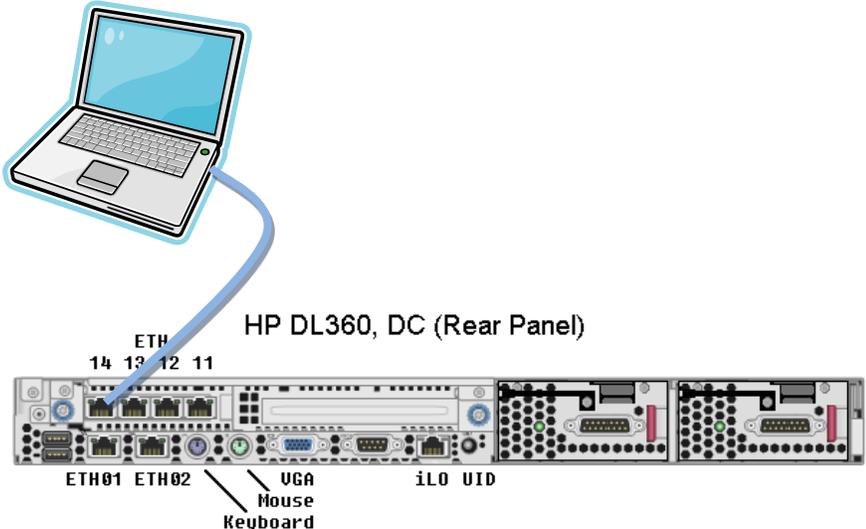
### Appendix C: Creating Temporary External IP Address for Accessing SDS GUI

<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.	
1. <input type="checkbox"/>	Log onto the SDS Server A ILO as indicated in Appendix A  <b>NOTE:</b> <i>Output similar to that shown on the right will appear.</i>	CentOS release 5.6 (Final) Kernel 2.6.18-238.19.1.el5prere15.0.0_72.22.0 on an x86_64  hostname1260476221 login: <b>root</b> Password: <b>&lt;root_password&gt;</b>
2. <input type="checkbox"/>	Delete bond0	# <b>netAdm delete --device=bond0</b> eth01 was successfully removed from bond0 eth02 was successfully removed from bond0 Interface bond0 removed
3. <input type="checkbox"/>	Add XMI IP address to the first SDS server (SDS-A) and have it use interface eth02	# <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
4. <input type="checkbox"/>	Add route to the default gateway for the first SDS site	# <b>netAdm add --device=eth02 --route=default --gateway=&lt;XMI_IP_Address_for_default_gateway&gt;</b> Route to eth02 added
5. <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>
6. <input type="checkbox"/>	Log off the ILO	# <b>exit</b>
7. <input type="checkbox"/>	Important NOTE: This interface must be un-configured	NOTE: If this method is used, then the <b>eth02</b> interface must be un-configured in Step 37 of Procedure 2 in Section 5.0, “ <i>Configuring SDS Servers A and B (1st SDS NOAM site only)</i> ”:
<b>THIS PROCEDURE HAS BEEN COMPLETED</b>		

## Appendix D. ESTABLISHING A LOCAL CONNECTION FOR ACCESSING THE SDS GUI

This procedure contains steps to connect a laptop to the SDS-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.

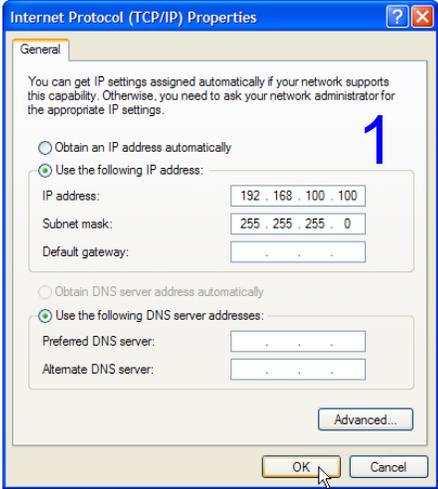
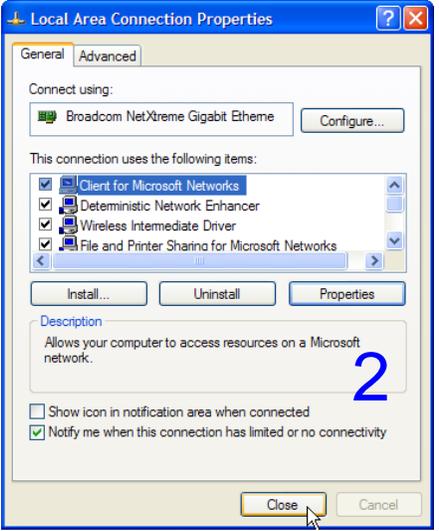
### Appendix D: Establishing a Local Connection for Accessing SDS GUI

Step	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.	
1. <input type="checkbox"/>	Access the SDS-A server's console.	Connect to the SDS-A 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 SDS-A server as the "root" user.	<pre>CentOS release 5.6 (Final) Kernel 2.6.18-238.19.1.el5prere15.0.0_72.22.0 on an x86_64  hostname1260476221 login: root Password: &lt;root_password&gt;</pre>
3. <input type="checkbox"/>	Configure static IP 192.168.100.11 on the eth14 port of the SDS-A server.	<pre>]# netAdm set --device=eth14 --address=192.168.100.11 --netmask=255.255.255.0 --onboot=yes</pre>
4. <input type="checkbox"/>	<p><b>Execute this step for HP DL360 G6:</b></p> <p>1) Plug in one end of the Ethernet cable (straight-thru) into the back of SDS-A server ETH14 (top left port).</p> <p>2) Plug the other end of the Ethernet cable into the laptop's Ethernet jack.</p>	 <p>The diagram illustrates the physical connection between a laptop and an HP DL360 server. A blue Ethernet cable is shown connecting the laptop's Ethernet port to the server's ETH14 port. The server's rear panel is labeled 'HP DL360, DC (Rear Panel)' and shows various ports including Ethernet (ETH01-ETH14), VGA, Mouse, Keyboard, iLO, and UID.</p>

Appendix D: Establishing a Local Connection for Accessing SDS GUI

<p>5.</p> <p><b>Execute this step for HP DL380 Gen8:</b></p>	<p>1) Plug in one end of the Ethernet cable (straight-thru) into the back of SDS-A server ETH14 (top left port).</p> <p>2) Plug the other end of the Ethernet cable into the laptop's Ethernet jack.</p>	<p>HP DL380p Gen8 Backplane</p>	
<p>6.</p>	<p>Access the laptop network interface card's TCP/IP "Properties" screen.</p> <p><b>NOTE:</b> For this step follow the instruction specific to the laptop's OS (XP, Vista or Win 7).</p>	<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>

Appendix D: Establishing a Local Connection for Accessing SDS GUI

<p>7.</p> <p><input type="checkbox"/></p>	<p>1) Set the IP address and netmask of the laptop's network interface card to an IP address within the same network subnet as the statically assigned IP address used in <b>Step 3</b> of this procedure (<b>192.168.100.100</b> is suggested) and click "OK".</p> <p>2) Click "Close" from the network interface card's main "Properties" screen.</p>		
<p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>			

- 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 E. CONFIGURE CISCO 4948E-F AGGREGATION SWITCHES

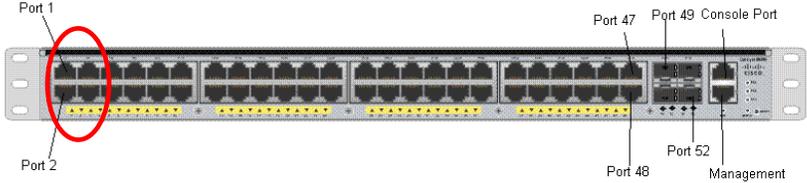
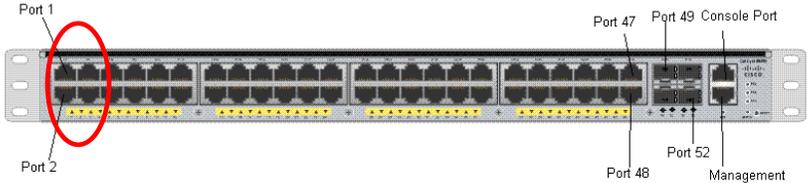
These switch configuration procedures require that the SDS hardware (servers and switches) are installed in a frame as indicated in the below picture:

U	SDS - DC- Seismic	
44	PDP-A	PWR
43		
42		
41		
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	FILLER PANEL	
8	FILLER PANEL	
7	FILLER PANEL	
6	SERVER C - QUERY (HP DL360 G6)	SERVERS
5	SERVER B - SDS NOAM (HP DL360 G6)	
4	SERVER A - SDS NOAM (HP DL360 G6)	
3	FILLER PANEL	
2	FILLER PANEL	
1	FILLER PANEL	

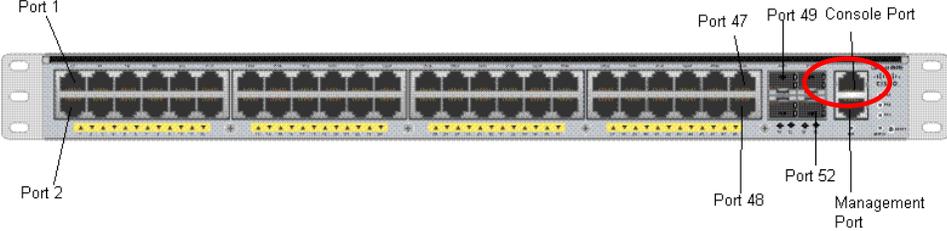
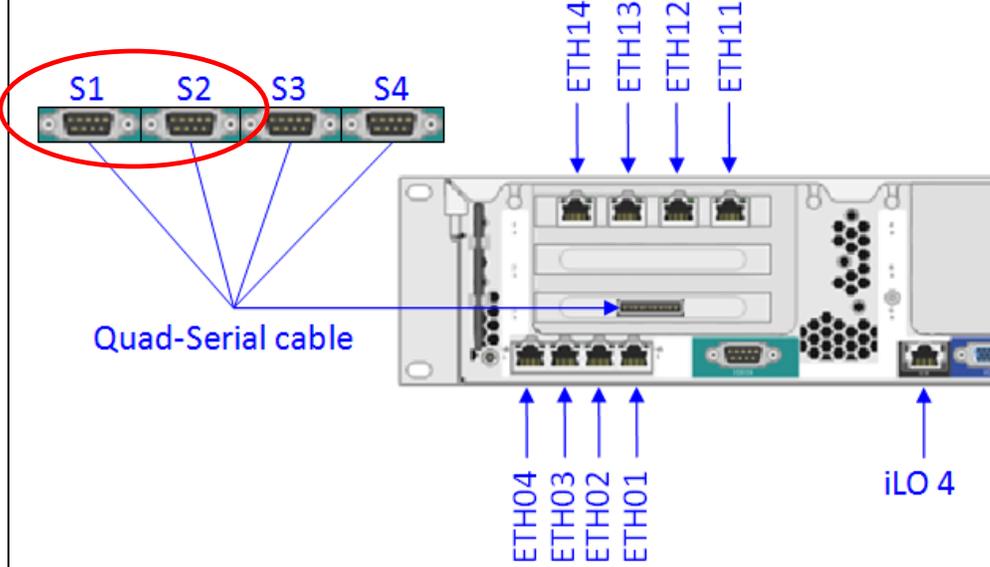
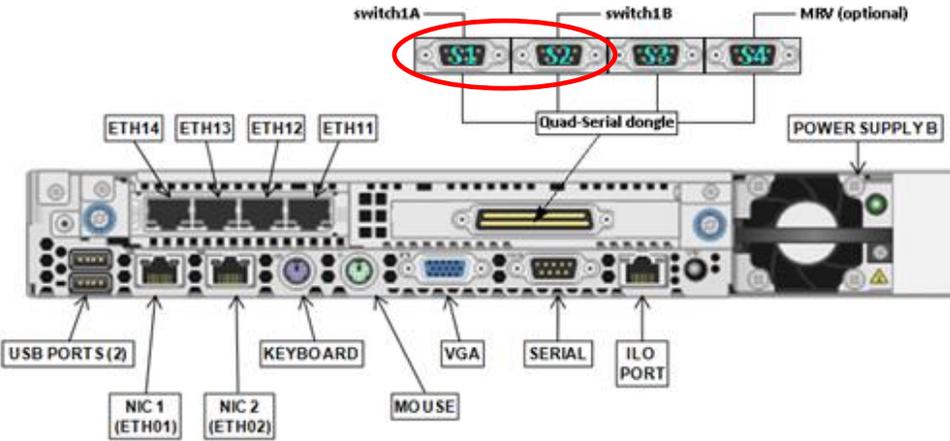
Figure 8 - SDS Frame Layout

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

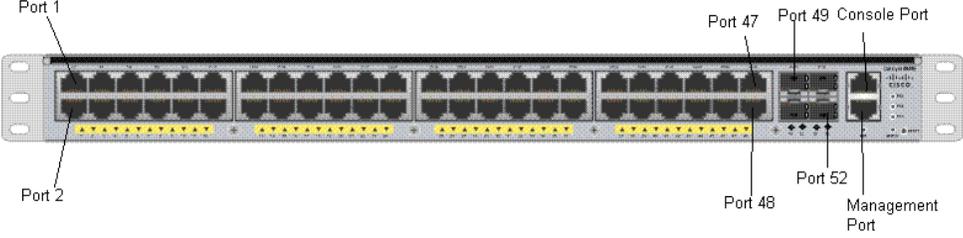
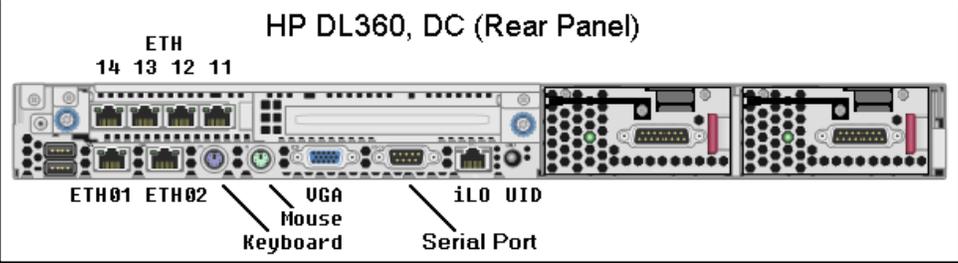
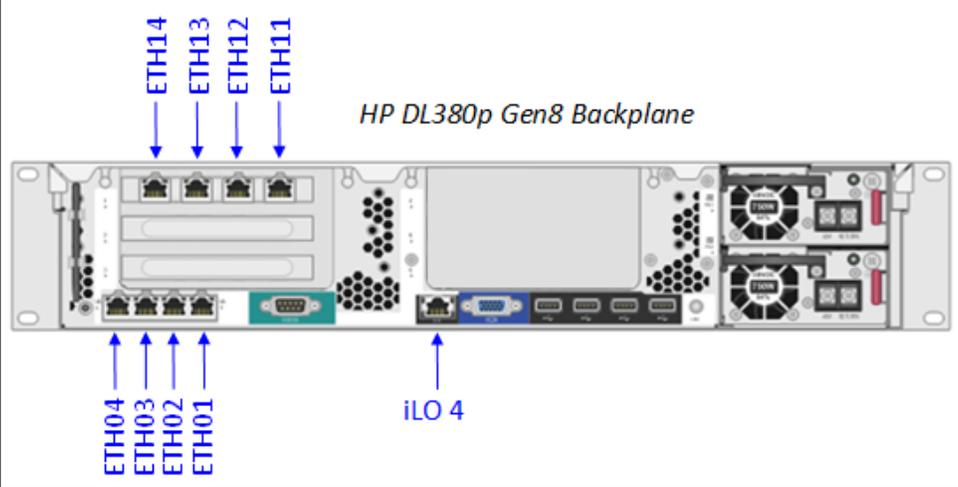
Appendix E.1: Verifying Cisco Switch Wiring (SDS sites)

Step	Procedure	Result
<p>1.</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p>Set/Verify the following cable configuration at the Cisco 4948E-F switches:</p> <p>1) Verify that the ISL switch1A, Port 1 to switch1B, Port 1 is <b>CONNECTED</b>.</p> <p>2) Verify that the ISL switch1A, Port 2 to switch1B, Port 2 is <b>CONNECTED</b>.</p> <p>3) Verify that the ISL switch1A, Port 3 to switch1B, Port 3 is <b>CONNECTED</b>.</p> <p>4) Verify that the ISL switch1A, Port 4 to switch1B, Port 4 is <b>CONNECTED</b>.</p>	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="display: flex; align-items: center; margin-bottom: 20px;"> <div style="font-size: 2em; margin-right: 10px;">1B</div> <div style="text-align: center;">  <p>switch1B (Top)</p> </div> </div> <div style="display: flex; align-items: center;"> <div style="font-size: 2em; margin-right: 10px;">1A</div> <div style="text-align: center;">  <p>switch1A (Bottom)</p> </div> </div> </div> <p><b>Figure 9 - Cisco 4948E-F Switch ISL Connections</b></p>

Appendix E.1: Verifying Cisco Switch Wiring (SDS sites)

Step	Procedure	Result
<p>2.</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p>Verify that <b>SERVER A</b> has the Quad-Serial card interface ports connected to the <b>Console Port</b> each switch port.</p> <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><b>Figure 10 - Cisco 4948E-F Switch (Console Port)</b></p> <hr/>  <p><b>Figure 11 - HP DL380 Gen8, Rear Panel (Quad-Serial Ports)</b></p> <hr/>  <p><b>Figure 12 - HP DL360 G6, Rear Panel (Quad-Serial Ports)</b></p>

Appendix E.1: Verifying Cisco Switch Wiring (SDS sites)

Step	Procedure	Result
<p>3.</p> <p><input type="checkbox"/> 1) Verify that switch1A, Port 5 is <b>CONNECTED</b> to SERVER A, ETH01.</p> <p><input type="checkbox"/> 2) Verify that switch1B, Port 5 is <b>CONNECTED</b> to SERVER A, ETH11.</p> <p><input type="checkbox"/> 3) Verify that switch1A, Port 6 is <b>CONNECTED</b> to SERVER B, ETH01.</p> <p><input type="checkbox"/> 4) Verify that switch1B, Port 6 is <b>CONNECTED</b> to SERVER B, ETH11.</p> <p><input type="checkbox"/> 3) Verify that switch1A, Port 7 is <b>CONNECTED</b> to SERVER C, ETH01.</p> <p><input type="checkbox"/> 4) Verify that switch1B, Port 7 is <b>CONNECTED</b> to SERVER C, ETH11.</p>		 <p>Figure 13 - Cisco 4948E-F Switch (Ethernet Ports)</p> <hr/>  <p>Figure 5 - HP DL360 G6, Rear Panel (Ethernet)</p> <hr/>  <p>Figure 6 - HP DL380 Gen8, Rear Panel (Ethernet)</p>
<p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>		

## E.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 (DL360)
<switch1A_serial_port>	SERVER A	ttyS4
<switch1B_serial_port>	SERVER A	ttyS5
Variable	Cisco WS-C4948E-F	
<IOS_image_file>	Fill in the appropriate value from [7]: _____	
Variable	Value	
<switch_platform_username>	Contact Oracle's Tekelec Customer Support.	
<switch_platform_password>	Contact Oracle's Tekelec Customer Support.	
<switch_console_password>	Contact Oracle's Tekelec Customer Support.	
<switch_enable_password>	Contact Oracle's Tekelec Customer Support.	
<SERVER A_mgmtVLAN_ip_address >	Primary SDS: 169.254.1.11    DR SDS: 169.254.1.14	
<management_SERVER B_mgmtVLAN_ip_address>	Primary SDS: 169.254.1.12    DR SDS: 169.254.1.15	
<switch_mgmtVLAN_id>	2	
<switch1A_mgmtVLAN_ip_address>	169.254.1.1	
<netmask>	255.255.255.0	
<switch1B_mgmtVLAN_ip_address>	169.254.1.2	
<management_server_mgmtInterface>	bond0.2	
<SERVER A_iLO_ip> (See Site Survey) <b>Error! Reference source not found. Error! Reference source not found.</b>	_____	
<management_SERVER B_iLO_ip> (See Site Survey) <b>Error! Reference source not found. Error! Reference source not found.</b>	_____	
Ethernet Interface	DL360 G6 / DL380 Gen8	
<ethernet_interface_1>	bond0.2 (eth01, eth11)	
<ethernet_interface_2>	bond0.4 (eth01, eth11)	

Variable	Value
<platcfg_password>	Contact Oracle's Tekelec Customer Support
<management_server_mgmtInterface>	bond0.2
<switch_backup_user>	Contact Oracle's Tekelec Customer Support.
<switch_backup_user_password>	Contact Oracle's Tekelec Customer Support.

**Note:** The onboard administrators are not available during the configuration of Cisco 4948E-F switches.

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

### Needed Material:

- HP Misc. Firmware DVD
- HP Solutions Firmware Upgrade Pack Release Notes [7]
- Application specific documentation (documentation that referred to this procedure)
- Switch A and B initialization xml files and SDS switch configuration xml file in an application ISO on an application CD.
- Application ISO's with netConfig and its required RPMs.

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

Appendix E.2: 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 DL360 server as the "admusr" user.	login: <code>admusr</code> Using keyboard-interactive authentication. Password: <code>&lt;admusr_password&gt;</code>
3. <input type="checkbox"/>	<b>SERVER A:</b> Change to <b>root</b> user	# <code>sudo -s</code>
4. <input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/>	<b>SERVER A:</b> Verify the switch1A initialization file exists  Verify the switch1B initialization file exists  Verify the switch configuration files exist	# <code>ls -l /usr/TKLC/plat/etc/switch/xml/switch1A_SDS_4948E_E-F_init.xml</code> # <code>ls -l /usr/TKLC/plat/etc/switch/xml/switch1B_SDS_4948E_E-F_init.xml</code> # <code>ls -l /usr/TKLC/plat/etc/switch/xml/Primary_switch1A_SDS_4948E_E-F_configure.xml</code> # <code>ls -l /usr/TKLC/plat/etc/switch/xml/Primary_switch1B_SDS_4948E_E-F_configure.xml</code> # <code>ls -l /usr/TKLC/plat/etc/switch/xml/DR_switch1A_SDS_4948E_E-F_configure.xml</code> # <code>ls -l /usr/TKLC/plat/etc/switch/xml/DR_switch1B_SDS_4948E_E-F_configure.xml</code>  If any file does not exist, contact Customer Care Center for assistance.
5. <input type="checkbox"/>	<b>SERVER A:</b> Verify quad-serial port mappings ( <i>quad-dongle S1 = ttyS4, quad-dongle S2 = ttyS5</i> )	# <code>setserial -g /dev/ttyS{1..12}</code> <code>/dev/ttyS1, UART: 16550A, Port: 0x02f8, IRQ: 3</code> <code>/dev/ttyS2, UART: unknown, Port: 0x03e8, IRQ: 4</code> <code>/dev/ttyS3, UART: unknown, Port: 0x02e8, IRQ: 3</code> <code>/dev/ttyS4, UART: 16950/954, Port: 0x0000, IRQ: 24</code> <code>/dev/ttyS5, UART: 16950/954, Port: 0x0000, IRQ: 24</code> <code>/dev/ttyS6, UART: 16950/954, Port: 0x0000, IRQ: 24</code> <code>/dev/ttyS7, UART: 16950/954, Port: 0x0000, IRQ: 24</code> <code>/dev/ttyS8, UART: unknown, Port: 0x0000, IRQ: 0</code> <code>/dev/ttyS9, UART: unknown, Port: 0x0000, IRQ: 0</code> <code>/dev/ttyS10, UART: unknown, Port: 0x0000, IRQ: 0</code> <code>/dev/ttyS11, UART: unknown, Port: 0x0000, IRQ: 0</code> <code>/dev/ttyS12, UART: unknown, Port: 0x0000, IRQ: 0</code>  Output should match the example shown above; if not, contact Customer Care Center for assistance.

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

Step	Procedure	Result
6. <input type="checkbox"/>	<b>SERVER A:</b>  Setup conserver serial console access for switch1A	<pre># conserverSetup -i -s &lt;SERVER_A_mgmtVLAN_ip_address&gt;</pre> <p>Example:</p> <pre># conserverSetup -i -s 169.254.1.11</pre> <p>Enter your platcfg username, followed by [ENTER]: <b>platcfg</b>  Enter your platcfg password, followed by [ENTER]:  Target address is local to this host. Running conserverSetup in local mode.  Checking Platform Revision for local TPD installation...  The local machine is running:      Product Name: SDS      Base Distro Release: 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]: <b>switch1A_console</b>  Enter the serial device designation for switch1A_console (default: "ttyUSB0"), followed by [ENTER]: <b>ttys4</b>  Configure additional serial consoles [Y/n]? [press ENTER for default &lt;Y&gt;]:n  Configuring switch 'switch1A_console' console server...Configured.  Configuring console repository service.....Configured.  Remote host has the following available interfaces:      bond0      bond0.4      bond1      eth01      eth02      eth11      eth12  Enter the name of the bond on the remote server(default: "bond0"), followed by [ENTER]:  ...No entry provided for bond. Resorting to default.  Slave interfaces for bond0:      bond0 interface: eth01      bond0 interface: eth11 </p>

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

Step	Procedure	Result
<p>7.</p> <p><input type="checkbox"/></p>	<p><b>SERVER A:</b></p> <p>Setup conserver serial console access for switch1B.</p> <p><b>NOTE:</b> Since Platform 6.0, the switch1A &amp; switch1B consoles both connect to Server A. Therefore, the Server A mgmtVLAN IP address is used again when configuring switch1B console access.</p>	<pre># conserverSetup -i -s &lt;SERVER_A_mgmtVLAN_ip_address&gt;</pre> <p>Example:</p> <pre># 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 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: eth11 </p>

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

Step	Procedure	Result
8. <input type="checkbox"/>	<b>SERVER A:</b> Add a repository for SSH service	<pre># netConfig --repo addService name=ssh_service Service type? (tftp, ssh, conserver, oa) ssh Service host? 169.254.1.11 Enter an option name &lt;q to cancel&gt;: user Enter the value for user: root Enter an option name &lt;q to cancel&gt;: password Enter the value for password: &lt;user_password&gt; Verify password: &lt;user_password&gt; Enter an option name &lt;q to cancel&gt;: q Add service for ssh_service successful</pre>
9. <input type="checkbox"/>	<b>SERVER A:</b> Verify you have entered the information correctly for SSH service	<pre># netConfig --repo showService name=ssh_service Service Name: ssh_service Type: ssh Host: 169.254.1.11 Options: password: 615EBD88232A2EFD0080AC990393083D user: root</pre>
10. <input type="checkbox"/>	<b>SERVER A:</b> Add a repository for TFTP service	<pre># netConfig --repo addService name=tftp_service Service type? (tftp, ssh, conserver, oa) tftp Service host? 169.254.1.11 Enter an option name (q to cancel): dir Enter a value for user: /var/lib/tftpboot/ Enter an option name(q to cancel): q Add service for tftp_service successful</pre>
11. <input type="checkbox"/>	<b>SERVER A:</b> Verify that you have entered the information correctly for TFTP service	<pre># netConfig --repo showService name=tftp_service Service Name: tftp_service Type: tftp Host: 169.254.1.11 Options: dir: /var/lib/tftpboot/</pre>

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

Step	Procedure	Result
<p>12.</p> <input type="checkbox"/>	<p><b>SERVER A:</b> Create console service for switch1A</p>	<pre># netConfig --repo addService name=switch1A_consvc Service type? (tftp, ssh, conserver, oa) conserver Service host? 169.254.1.11 Enter an option name (q to cancel): user Enter a value for user: platcfg Enter an option name(q to cancel): password Enter a value for password: &lt;platcfg_password&gt; Verify password: &lt;platcfg_password&gt; Enter an option name(q to cancel): q Add service for switch1A_consvc successful</pre>
<p>13.</p> <input type="checkbox"/>	<p><b>SERVER A:</b> Verify you have entered the information correctly for switch1A console service</p>	<pre># netConfig --repo showService name=switch1A_consvc Service Name: switch1A_consvc Type: conserver Host: 169.254.1.11 Options: password: 0B902ECD13D5BD2F1B57B5BFC6E95FE9 user: platcfg</pre>
<p>14.</p> <input type="checkbox"/>	<p><b>SERVER A:</b> Add repository for switch1B console service</p>	<pre># netConfig --repo addService name=switch1B_consvc Service type? (tftp, ssh, conserver, oa) conserver Service host? 169.254.1.11 Enter an option name (q to cancel): user Enter a value for user: platcfg Enter an option name(q to cancel): password Enter a value for password: &lt;platcfg_password&gt; Verify password: &lt;platcfg_password&gt; Enter an option name(q to cancel): q Add service for console_service successful</pre>
<p>15.</p> <input type="checkbox"/>	<p><b>SERVER A:</b> Verify you have entered the information correctly for switch1B console service</p>	<pre># netConfig --repo showService name=switch1B_consvc Service Name: switch1B_consvc Type: conserver Host: 169.254.1.11 Options: password: 0B902ECD13D5BD2F1B57B5BFC6E95FE9 user: platcfg</pre>

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

Step	Procedure	Result
<p>16.</p> <p><input type="checkbox"/></p>	<p><b>SERVER A:</b></p> <p>Verify and remove the service named "console_service" if present</p>	<pre># netConfig --repo showService name=console_service Services:   Service Name:  console_service   Type:         conserver   Host:         169.254.1.11   Options:     password: 0B902ECD13D5BD2F1B57B5BFC6E95FE9     user: platcfg  If service named "console_service is present, then remove it. Otherwise skip to the next step.  # netConfig --repo deleteService name=console_service Are you sure you want to delete console_service (y/n)? y Deleting service console_service...</pre>

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

Step	Procedure	Result
<p>17.</p> <p><input type="checkbox"/></p>	<p><b>SERVER A:</b></p> <p>Add repository for switch1A</p>	<pre># 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_consvc What is the name of the console for OOB access? switch1A_console What is the platform access username? platcfg What is the device console password? Verify password:  What is the platform user password? Verify password:  What is the device privileged mode password? Verify password:  Should the live network adapter be added (y/n)? y  Adding cli protocol for switch1A using network... Network device access already set: 169.254.1.11  Should the live oob adapter be added (y/n)? y  Adding cli protocol for switch1A using oob... OOB device access already set: switch1A_consvc Device named switch1A successfully added.</pre>

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

Step	Procedure	Result
18. <input type="checkbox"/>	<b>SERVER A:</b>  Add repository for switch1B	<pre> # 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_consvc What is the name of the console for OOB access? switch1B_console What is the platform access username? platcfg What is the device console password? Verify password:  What is the platform user password? Verify password:  What is the device privileged mode password? Verify password:  Should the live network adapter be added (y/n)? y  Adding cli protocol for switch1A using network... Network device access already set: 169.254.1.12  Should the live oob adapter be added (y/n)? y  Adding cli protocol for switch1A using oob... OOB device access already set: switch1B_consvc Device named switch1B successfully added. </pre>

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

Step	Procedure	Result
<p>19.</p> <input type="checkbox"/>	<p><b>SERVER A:</b></p> <p>Verify you have entered the information correctly</p>	<pre># netConfig --repo listDevices Devices: Device: switch1A   Vendor: Cisco   Model: 4948E-F   Access: Network: 169.254.1.1/24   Access: OOB:            Service: switch1A_consvc            Console: switch1A_console Init Protocol Configured Live Protocol Configured  Device: switch1B   Vendor: Cisco   Model: 4948E-F   Access: Network: 169.254.1.2/24   Access: OOB:            Service: switch1B_consvc            Console: switch1B_console Init Protocol Configured Live Protocol Configured</pre>
<p>20.</p> <input type="checkbox"/>	<p><b>SERVER A:</b></p> <p>Log in to switch1A</p>	<p><i>Example:</i></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</pre> <p>Enter platcfg@pmac5000101's password: &lt;platcfg_password&gt;  [Enter `^Ec?' for help]  Press &lt;Enter&gt;</p>
<p>21.</p> <input type="checkbox"/>	<p><b>switch1A:</b></p> <p>Note the image version for comparison in a following step.</p>	<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 E.3** Cisco 4948E-F IOS Upgrade (All SDS NOAM sites)
- 2) Return to this Procedure and continue with the following Step. **Beginning with Step 40.**

**NOTE:** For each switch, compare the IOS version from previous steps with the IOS version specified in the Firmware Upgrade Pack Release Notes [6] for the switch model being used.

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

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

Step	Procedure	Result
22. <input type="checkbox"/>	<b>Switch1A:</b>  Execute "show bootflash" to verify that only the correct bootflash is present.	Switch> <b>show bootflash</b> -#- --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
23. <input type="checkbox"/>	<b>Switch1A:</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] <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 <b>&lt;ENTER&gt;</b> 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# *Jan 26 12:53:31.675: %SYS-5-CONFIG_I: Configured from console by console Switch#
24. <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>

Step	Procedure	Result
25. <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! <b>&lt;ENTER&gt;</b>  Switch>
26. <input type="checkbox"/>	<b>Switch1A:</b>  Enter "enable" mode.	Switch# <b>enable</b> Switch#
27. <input type="checkbox"/>	<b>Switch1A:</b>  Verify that you see the correct IOS version listed in the bootflash.	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#
28. <input type="checkbox"/>	<b>Switch1A:</b>  Close connection to switch.	Switch# <b>quit</b>  Switch con0 is now available  Press RETURN to get started.
29. <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.
30. <input type="checkbox"/>	<b>SERVER A:</b>  Log in to switch1B	<b>Example:</b> <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: <b>&lt;platcfg_password&gt;</b> [Enter '^Ec?' for help] Press <Enter>

Step	Procedure	Result
31. <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 E.3 Cisco 4948E-F IOS Upgrade (All SDS NOAM sites); Beginning with Step 25.**
- 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 [6] 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
<p>32.</p> <input type="checkbox"/>	<p><b>Switch1B:</b></p> <p>Execute “<b>show bootflash</b>” to verify that only the correct bootflash is present.</p>	<pre>Switch&gt; show bootflash -#- --length-- -----date/time----- path  1      25771102 Nov 29 2011 09:04:04 cat4500e-entservicesk9-mz.122-54.XO.bin  95072256 bytes available (33210368 bytes used)  Note the image version for comparison in a following step</pre>
<p>33.</p> <input type="checkbox"/>	<p><b>Switch1B:</b></p> <p>Reset switch back to factory defaults by deleting the VLANs.</p>	<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# *Jan 26 12:53:31.675: %SYS-5-CONFIG_I: Configured from console by console Switch#</pre>
<p>34.</p> <input type="checkbox"/>	<p><b>Switch1B:</b></p> <p>Reload the switch.</p>	<pre>Switch#reload  System configuration has been modified. Save? [yes/no]: no Proceed with reload? [confirm] &lt;ENTER&gt;</pre>

Step	Procedure	Result
<b>35.</b> <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;  Switch&gt; </pre>
<b>36.</b> <input type="checkbox"/>	<b>Switch1B:</b>  Enter "enable" mode.	<pre> Switch#enable Switch# </pre>
<b>37.</b> <input type="checkbox"/>	<b>Switch1B:</b>  Verify that you see the correct IOS version listed in the bootflash.	<pre> 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# </pre>
<b>38.</b> <input type="checkbox"/>	<b>Switch1B:</b>  Close connection to switch.	<pre> Switch#quit  Switch con0 is now available  Press RETURN to get started. </pre>
<b>39.</b> <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
<p>40.</p> <input type="checkbox"/>	<p><b>SERVER A:</b> Initialize switch 1A</p>	<pre># netConfig --file=/usr/TKLC/plat/etc/switch/xml/switch1A_SDS_4948E_E- F_init.xml</pre> <p>Processing file: /usr/TKLC/plat/etc/switch/xml/switch1A_SDS_4948E-F_init.xml</p> <p>#</p> <p>Note: This step takes about 2-3 minutes to complete</p> <p>Check the output of this command for any errors. If this fails for any reason, stop this procedure and contact Customer Care Center.</p> <p>A successful completion of netConfig will return the user to the prompt.</p>
<p>41.</p> <input type="checkbox"/>	<p><b>SERVER A:</b> Initialize switch 1B</p>	<pre># netConfig --file=/usr/TKLC/plat/etc/switch/xml/switch1B_SDS_4948E_E- F_init.xml</pre> <p>Processing file: /usr/TKLC/plat/etc/switch/xml/switch1B_SDS_4948E-F_init.xml</p> <p>#</p> <p>Note: This step takes about 2-3 minutes to complete</p> <p>Check the output of this command for any errors. If this fails for any reason, stop this procedure and contact Customer Care Center.</p> <p>A successful completion of netConfig will return the user to the prompt.</p>

Step	Procedure	Result
<p>42.</p> <p><input type="checkbox"/></p>	<p><b>SERVER A:</b></p> <p>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  PING 169.254.1.1 (169.254.1.1) 56(84) bytes of data.  64 bytes from 169.254.1.1: icmp_seq=1 ttl=255 time=3.09 ms 64 bytes from 169.254.1.1: icmp_seq=2 ttl=255 time=0.409 ms 64 bytes from 169.254.1.1: icmp_seq=3 ttl=255 time=0.417 ms 64 bytes from 169.254.1.1: icmp_seq=4 ttl=255 time=0.418 ms 64 bytes from 169.254.1.1: icmp_seq=5 ttl=255 time=0.419 ms 64 bytes from 169.254.1.1: icmp_seq=6 ttl=255 time=0.419 ms 64 bytes from 169.254.1.1: icmp_seq=7 ttl=255 time=0.429 ms 64 bytes from 169.254.1.1: icmp_seq=8 ttl=255 time=0.423 ms 64 bytes from 169.254.1.1: icmp_seq=9 ttl=255 time=0.381 ms 64 bytes from 169.254.1.1: icmp_seq=10 ttl=255 time=0.416 ms 64 bytes from 169.254.1.1: icmp_seq=11 ttl=255 time=0.381 ms 64 bytes from 169.254.1.1: icmp_seq=12 ttl=255 time=0.426 ms 64 bytes from 169.254.1.1: icmp_seq=13 ttl=255 time=0.420 ms 64 bytes from 169.254.1.1: icmp_seq=14 ttl=255 time=0.415 ms 64 bytes from 169.254.1.1: icmp_seq=15 ttl=255 time=0.419 ms  --- 169.254.1.1 ping statistics --- 15 packets transmitted, 15 received, 0% packet loss, time 14006ms  rtt min/avg/max/mdev = 0.381/0.592/3.097/0.669 ms #</pre>

Step	Procedure	Result
43. <input type="checkbox"/>	<b>SERVER A:</b> Ping switch 1B's SVI (router interface) addresses to verify switch initialization.  <b>Note:</b> VIP addresses are not yet available.	<pre># ping -c 15 169.254.1.2 PING 169.254.1.2 (169.254.1.2) 56(84) bytes of data. From 169.254.1.11 icmp_seq=2 Destination Host Unreachable From 169.254.1.11 icmp_seq=3 Destination Host Unreachable From 169.254.1.11 icmp_seq=4 Destination Host Unreachable From 169.254.1.11 icmp_seq=6 Destination Host Unreachable From 169.254.1.11 icmp_seq=7 Destination Host Unreachable From 169.254.1.11 icmp_seq=8 Destination Host Unreachable 64 bytes from 169.254.1.2: icmp_seq=9 ttl=255 time=2.76 ms 64 bytes from 169.254.1.2: icmp_seq=10 ttl=255 time=0.397 ms 64 bytes from 169.254.1.2: icmp_seq=11 ttl=255 time=0.448 ms 64 bytes from 169.254.1.2: icmp_seq=12 ttl=255 time=0.382 ms 64 bytes from 169.254.1.2: icmp_seq=13 ttl=255 time=0.426 ms 64 bytes from 169.254.1.2: icmp_seq=14 ttl=255 time=0.378 ms 64 bytes from 169.254.1.2: icmp_seq=15 ttl=255 time=0.431 ms  --- 169.254.1.2 ping statistics --- 15 packets transmitted, 7 received, +6 errors, 53% packet loss, time 14003ms rtt min/avg/max/mdev = 0.378/0.747/2.769/0.825 ms, pipe 3  <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 the Customer Care Center.</b></pre>

Step	Procedure	Result
44. <input type="checkbox"/>	<b>SERVER A:</b> Configure both switches	<pre># netConfig --file=/usr/TKLC/plat/etc/switch/xml/switch_SDS_4948E_E- F_configure.xml</pre> <p>Processing file: /usr/TKLC/plat/etc/switch/xml/switch_SDS_4948E- F_configure.xml</p> <pre>#</pre> <p>Note: This step takes about 2-3 minutes to complete.</p> <ul style="list-style-type: none"> <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>
45. <input type="checkbox"/>	<b>SERVER A:</b> Undo the temporary changes.	<pre># tpdProvd --client --noxml --ns=Xinetd stopXinetdService service tftp</pre> <p>Login on Remote: <b>platcfg</b></p> <p>Password of platcfg: <b>&lt;platcfg_password&gt;</b></p> <pre>1</pre>
46. <input type="checkbox"/>	<b>SERVER A:</b> Verify the switch is using the correct IOS image per platform version.	<pre># netConfig --device=switch1A listFirmware</pre> <p>Image: cat4500e-entservicesk9-mz.122-54.XO.bin</p> <pre># netConfig --device=switch1B listFirmware</pre> <p>Image: cat4500e-entservicesk9-mz.122-54.XO.bin</p>

Step	Procedure	Result
<p>47.</p> <p><input type="checkbox"/></p>	<p><b>SERVER A:</b></p> <p>Execute the “<b>service network restart</b>” to restore SERVER A networking to original state.</p> <p>Output similar to that shown on the right may be observed.</p>	<pre># service network restart  Shutting down interface bond0.2:  Removed VLAN -:bond0.2:- [ OK ]  Shutting down interface bond0.4:  Removed VLAN -:bond0.4:- [ OK ]  Shutting down interface bond0:    [ OK ]  Shutting down interface bond1:    [ OK ]  Shutting down loopback interface: [ OK ]  Bringing up loopback interface:   [ OK ]  Setting 802.1Q VLAN parameters:  Set name-type for VLAN subsystem. Should be visible in /proc/net/vlan/config  [ OK ]  Bringing up interface bond0:  RTNETLINK answers: No such device [ OK ]  Bringing up interface bond1:   [ OK ]  Bringing up interface bond0.2:  Added VLAN with VID == 2 to IF -: :bond0:- [ OK ]  Bringing up interface bond0.4:  Added VLAN with VID == 4 to IF -: :bond0:- [ OK ]  #</pre>

Step	Procedure	Result
48. <input type="checkbox"/>	<b>SERVER A:</b> 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  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>
49. <input type="checkbox"/>	<b>SERVER A:</b> 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  PING 169.254.1.2 (169.254.1.2) 56(84) bytes of data. 64 bytes from 169.254.1.2: icmp_seq=1 ttl=255 time=0.401 ms 64 bytes from 169.254.1.2: icmp_seq=2 ttl=255 time=0.394 ms 64 bytes from 169.254.1.2: icmp_seq=3 ttl=255 time=0.407 ms 64 bytes from 169.254.1.2: icmp_seq=4 ttl=255 time=0.393 ms 64 bytes from 169.254.1.2: icmp_seq=5 ttl=255 time=0.401 ms  --- 169.254.1.2 ping statistics --- 5 packets transmitted, 5 received, 0% packet loss, time 3999ms  rtt min/avg/max/mdev = 0.393/0.399/0.407/0.013 ms  #</pre>

Step	Procedure	Result
<p>50.</p> <input type="checkbox"/>	<p><b>SERVER A:</b></p> <p>Verify SSH capability from server 1A to switch 1A.</p>	<pre># ssh platcfg@169.154.1.1  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>
<p>51.</p> <input type="checkbox"/>	<p><b>SERVER A:</b></p> <p>Close SSH connection to switch 1A.</p>	<pre># quit  Connection to 169.254.1.1 closed.</pre>
<p>52.</p> <input type="checkbox"/>	<p><b>SERVER A:</b></p> <p>Verify SSH capability from server 1A to switch 1B</p>	<pre># ssh platcfg@169.154.1.2  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>
<p>53.</p> <input type="checkbox"/>	<p><b>SERVER A:</b></p> <p>Close SSH connection to switch 1A.</p>	<pre># quit  Connection to 169.254.1.2 closed.</pre>

Step	Procedure	Result
<p>54.</p> <p><input type="checkbox"/></p>	<p><b>SERVER B:</b></p> <p>Execute the “<b>service network restart</b>” to restore SERVER B networking to original state.</p> <p>Output similar to that shown on the right may be observed.</p>	<pre># service network restart  Shutting down interface bond0.2:  Removed VLAN -:bond0.2:-  [ OK ]  Shutting down interface bond0.4:  Removed VLAN -:bond0.4:-  [ OK ]  Shutting down interface bond0:  [ OK ]  Shutting down interface bond1:  [ OK ]  Shutting down loopback interface:  [ OK ]  Bringing up loopback interface:  [ OK ]  Setting 802.1Q VLAN parameters:  Set name-type for VLAN subsystem. Should be visible in /proc/net/vlan/config [ OK ]  Bringing up interface bond0:  RTNETLINK answers: No such device [ OK ]  Bringing up interface bond1:  [ OK ]  Bringing up interface bond0.2:  Added VLAN with VID == 2 to IF -: bond0:-  [ OK ]  Bringing up interface bond0.4:  Added VLAN with VID == 4 to IF -: bond0:-  [ OK ]  #</pre>
<p>55.</p> <p><input type="checkbox"/></p>	<p><b>SERVER B:</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>

Step	Procedure	Result
56. <input type="checkbox"/>	<b>SERVER B:</b> 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  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>
57. <input type="checkbox"/>	<b>SERVER B:</b> Verify SSH capability from server 1B 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>
58. <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>
59. <input type="checkbox"/>	<b>SERVER B:</b> Verify SSH capability from server 1B 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>
60. <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>
61. <input type="checkbox"/>	<b>SERVER A:</b> Run Appendix E.4 to backup switch configuration.	

Step	Procedure	Result
62. <input type="checkbox"/>	<b>SERVER A:</b> Exit from the command line to return the server console to the login prompt.	# <b>exit</b> logout  CentOS release 5.6 (Final) Kernel 2.6.18-238.19.1.el5prere15.0.0_72.22.0 on an x86_64
<b>THIS PROCEDURE HAS BEEN COMPLETED</b>		

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

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

Step	Procedure	Result
<p>1.</p> <input type="checkbox"/>	<p><b>SERVER A:</b> Access the <b>SERVER A</b> console.</p>	<p>Connect to the <b>SERVER A</b> console using one of the access methods described in <b>Section 2.3</b>.</p>
<p>2.</p> <input type="checkbox"/>	<p><b>SERVER A:</b> 1) Access the command prompt.  2) Log into the HP DL360 server as the "root" user.</p>	<pre>CentOS release 5.6 (Final) Kernel 2.6.18-238.19.1.el5prere15.0.0_72.20.0 on an x86_64  hostname1260476221 login: root Password: &lt;root_password&gt;</pre>
<p>3.</p> <input type="checkbox"/>	<p><b>SERVER A:</b> Output similar to that shown on the right will appear as the server access the command prompt.</p>	<p><b>*** TRUNCATED OUTPUT ***</b></p> <pre>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 [root@hostname1260476221 ~]#</pre>
<p>4.</p> <input type="checkbox"/>	<p><b>SERVER A:</b> Verify IOS images on the system</p>	<pre># ls /var/lib/tftpboot/ &lt;IOS_image_file&gt;</pre> <p>If the correct IOS version is displayed, skip forward to <b>Step 7</b>.</p>
<p>5.</p> <input type="checkbox"/>	<p><b>SERVER A:</b> 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>	 <p><b>Figure 3 - HP DL360 G6 Front Panel: USB Port</b></p>  <p><b>Figure 4 - HP DL380 Gen8, Front Panel: USB Port</b></p>

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

Step	Procedure	Result
6. <input type="checkbox"/>	<b>SERVER A:</b> 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. <input type="checkbox"/>	<b>SERVER A:</b> Prepare the system for IOS transfer.	<pre># tpdProvd --client --noxml --ns=Xinetd startXinetdService service tftp Login on Remote: platcfg Password of platcfg: &lt;platcfg_password&gt; 1 #</pre>
8. <input type="checkbox"/>	<b>SERVER A:</b> 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>• If <b>bond0</b> &amp; <b>bond0.2</b> are both present, skip to <b>Step 10</b>.</li> <li>• If only <b>bond0</b> is present, continue with the following step.</li> </ul>
9. <input type="checkbox"/>	<b>SERVER A:</b> Create the bond0.2 and add interfaces eth01 & eth11 to it.	<pre># netAdm delete --device=bond0 # netAdm add --device=bond0 --onboot=yes --type=Bonding -- mode=active-backup --miimon=100 --bootproto=none # netAdm set --device=eth01 --bootproto=none --type=Ethernet -- master=bond0 --slave=yes --onboot=yes # netAdm set --device=eth11 --bootproto=none --type=Ethernet -- master=bond0 --slave=yes --onboot=yes</pre> <p>Add the &lt;SERVER A_mgmtVLAN_IP_address&gt; to bond0.2</p> <pre># netAdm add --device=bond0.2 --address=169.254.1.11 -- netmask=255.255.255.0 --onboot=yes</pre>

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

Step	Procedure	Result
<p>10.</p> <input type="checkbox"/>	<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> <pre># ifdown eth11 # ifup eth01 # ifconfig bond0.2 bond0.2  Link encap:Ethernet  HWaddr 98:4B:E1:6E:87:6C         inet addr:169.254.1.11 Bcast:169.254.1.255Mask:255.255.255.0         inet6 addr: fe80::9a4b:e1ff:fe6e:876c/64 Scope:Link         UP BROADCAST RUNNING MASTER MULTICAST  MTU:1500  Metric:1         RX packets:99384 errors:0 dropped:0 overruns:0 frame:0         TX packets:105440 errors:0 dropped:0 overruns:0 carrier:0         collisions:0 txqueuelen:0         RX bytes:4603240 (4.3 MiB)  TX bytes:55536818 (52.9 MiB)</pre> <p>The command output should contain the IP address of the &lt;SERVER A_mgmtVLAN_ip_address&gt;.</p>
<p>11.</p> <input type="checkbox"/>	<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>
<p>12.</p> <input type="checkbox"/>	<p><b>switch1A:</b></p> <p>Enter enable mode</p>	<pre>Switch&gt; enable Switch#</pre>
<p>13.</p> <input type="checkbox"/>	<p><b>switch1A:</b></p> <p>Configure switch port with this sequence of commands</p>	<pre>Switch# conf t Switch(config)# vlan 2 Switch(config)# int vlan 2 Switch(config-if)# ip address 169.254.1.1 255.255.255.0 Switch(config-if)# no shut Switch(config-if)# int gil/5 Switch(config-if)# switchport mode trunk Switch(config-if)# spanning-tree portfast trunk Switch(config-if)# end</pre>

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

Step	Procedure	Result
14. <input type="checkbox"/>	<b>switch1A:</b> Test connectivity	<pre>ping &lt;SERVER A_mgmtVLAN_ip_address&gt;</pre> <pre>Switch# ping 169.254.1.11</pre> <p>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</p> <p><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></p>
15. <input type="checkbox"/>	<b>switch1A:</b> Upload IOS image to switch	<pre>Switch# copy tftp: bootflash:</pre> <p>Address or name of remote host []? &lt;SERVER A_mgmtVLAN_ip_address&gt;</p> <p>Source filename []? &lt;New_IOS_image_file&gt;</p> <p>Destination filename [&lt;New_IOS_image_file&gt;]? &lt;ENTER&gt;</p> <p>Press &lt;Enter&gt; here, you do NOT want to change the filename</p> <pre>Accessing tftp://&lt;SERVER A_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]</pre> <p>45606 bytes copied in 3.240 secs (140759 bytes/sec)</p>
16. <input type="checkbox"/>	<b>switch1A:</b> Locate old IOS image to be removed	<pre>Switch# dir bootflash:</pre> <pre>Directory of bootflash:/</pre> <pre> 1 -rwx   17779888  May 11 2011 02:25:23 -05:00  cat4500- entservicesk9-mz.122-54.WO.bin</pre> <pre> 2 -rwx   17779888  May 11 2011 02:25:23 -05:00  cat4500-ipbasek9- mz.122-54.WO.bin</pre> <pre>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 notated by the variable &lt;OLD_IOS_image&gt;</p>
17. <input type="checkbox"/>	<b>switch1A:</b> Remove old IOS image	<pre>Switch# delete /force /recursive bootflash:&lt;OLD_IOS_image&gt;</pre> <pre>Switch#</pre>
18. <input type="checkbox"/>	<b>switch1A:</b> Locate old IOS image to be removed	<pre>Switch# dir bootflash:</pre> <pre>Directory of bootflash:/</pre> <pre> 1 -rwx   17779888  May 11 2011 02:25:23 -05:00  cat4500- entservicesk9-mz.122-54.WO.bin</pre> <pre>60817408 bytes total (43037392 bytes free)</pre> <p><b>NOTE:</b> Here, you should see only the IOS version you uploaded.</p>

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

Step	Procedure	Result
<p>19.</p> <input type="checkbox"/>	<p><b>Switch1A:</b></p> <p>Reset switch back to factory defaults by deleting the VLANs.</p>	<pre>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 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# *Jan 26 12:53:31.675: %SYS-5-CONFIG_I: Configured from console by console Switch#</pre>
<p>20.</p> <input type="checkbox"/>	<p><b>switch1A:</b></p> <p>Reload the switch</p>	<pre>Switch#reload System configuration has been modified. Save? [yes/no]: no Proceed with reload? [confirm] &lt;ENTER&gt;</pre> <p><b>! WARNING!</b> <i>It is extremely important to answer "no" to the above "Save?" option.</i></p>
<p>21.</p> <input type="checkbox"/>	<p><b>switch1A:</b></p> <p>After the reload, enter <i>enable</i> mode.</p>	<pre>Switch&gt; enable Switch#</pre>
<p>22.</p> <input type="checkbox"/>	<p><b>switch1A:</b></p> <p>Wait until the switch is reloaded, then confirm the correct IOS image.</p>	<pre>Switch&gt; show version   include image System image file is "bootflash:cat4500-entservicesk9-mz.122-54.WO.bin" Switch&gt;</pre> <p><b>NOTE:</b> <i>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></p>
<p>23.</p> <input type="checkbox"/>	<p><b>switch1A:</b></p> <p>Locate old IOS image to be removed.</p>	<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><b>NOTE:</b> <i>Here, you should see only the IOS version you uploaded.</i></p>
<p>24.</p> <input type="checkbox"/>	<p><b>switch1A:</b></p> <p>Exit the switch1A console session.</p>	<pre>Switch# &lt;CTRL-e&gt;&lt;c&gt;&lt;. &gt;</pre> <p><b>Hot Key sequence:</b> Ctrl-E, C, period</p>

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

Step	Procedure	Result
25. <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:  # ifup eth11 # ifdown eth01  <b>NOTE:</b> The command output should contain the IP address of the variable <SERVER A_mgmtVLAN_ip_address>.
26. <input type="checkbox"/>	<b>SERVER A:</b> Connect to switch1B console	<code>console -M &lt;SERVER A_mgmtVLAN_ip_address&gt; -l platcfg switch1B_console</code>  # /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>
27. <input type="checkbox"/>	<b>switch1B:</b> Enter enable mode	Switch> enable Switch#
28. <input type="checkbox"/>	<b>switch1B:</b> Configure switch port with this sequence of commands	Switch# conf t Switch(config)# vlan 2 Switch(config)# int vlan 2 Switch(config-if)# ip address 169.254.1.2 255.255.255.0 Switch(config-if)# no shut Switch(config-if)# int gi1/5 Switch(config-if)# switchport mode trunk Switch(config-if)# spanning-tree portfast trunk Switch(config-if)# end
29. <input type="checkbox"/>	<b>switch1B:</b> Test connectivity	<code>ping &lt;management_SERVER A_mgmtVLAN_ip_address&gt;</code>  Switch# ping 169.254.1.11 Type escape sequence to abort. Sending 5, 100-byte ICMP Echos to <SERVER A_mgmtVLAN_ip_address>, timeout is 2 seconds: !!!! Success rate is 100 percent (5/5), round trip min/avg/max = 1/1/4 ms  <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.

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

Step	Procedure	Result
<p>30.</p> <input type="checkbox"/>	<p><b>switch1B:</b> Upload IOS image to switch</p>	<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>
<p>31.</p> <input type="checkbox"/>	<p><b>switch1B:</b> Locate old IOS image to be removed</p>	<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 notated by the variable &lt;OLD_IOS_image&gt;</p>
<p>32.</p> <input type="checkbox"/>	<p><b>switch1B:</b> Remove old IOS image</p>	<pre>Switch# delete /force /recursive bootflash:&lt;OLD_IOS_image&gt; Switch#</pre>
<p>33.</p> <input type="checkbox"/>	<p><b>switch1B:</b> Locate old IOS image to be removed</p>	<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>

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

Step	Procedure	Result
34. <input type="checkbox"/>	<b>Switch1B:</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# *Jan 26 12:53:31.675: %SYS-5-CONFIG_I: Configured from console by console Switch#
35. <input type="checkbox"/>	<b>switch1B:</b>  Reload the switch	Switch# <b>reload</b> Proceed with reload? [confirm] <b>&lt;ENTER&gt;</b> System config modified. save? <b>&lt;y&gt;</b>
36. <input type="checkbox"/>	<b>switch1B:</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>
37. <input type="checkbox"/>	<b>switch1B:</b>  Enter enable mode	Switch> <b>enable</b> Switch#
38. <input type="checkbox"/>	<b>switch1B:</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)  Here, you should see only the IOS version you uploaded.
39. <input type="checkbox"/>	<b>switch1A:</b>  Exit the switch1A console session.	Switch# <b>&lt;CTRL-e&gt;&lt;c&gt;&lt;. &gt;</b>  <b>Hot Key sequence: Ctrl-E, C, period</b>
40. <input type="checkbox"/>	<b>SERVER A:</b>  Re-enable the bond0.2 interface to switch1A.	On SERVER A ensure that the both bond0.2 interfaces are up:  # <b>ifup eth11</b> # <b>ifup eth01</b>

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

Step	Procedure	Result
41. <input type="checkbox"/>	<b>SERVER A:</b> Stop the "tftp" service.	<pre># tpdProvd --client --noxml --ns=Xinetd stopXinetdService service tftp  Login on Remote: platcfg  Password of platcfg: &lt;platcfg_password&gt;  1</pre>
<b>THIS PROCEDURE HAS BEEN COMPLETED</b>		

## E.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

## Appendix E.4: 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> Change to <b>root</b> user	<b># sudo -s</b>
4. <input type="checkbox"/>	<b>SERVER A:</b> Verify hostmane of the switch1A	<b># netConfig --device=&lt;switch_name&gt; getHostname</b> Hostname: switch1A <b>Note:</b> The value beside "Hostname:" should be the same as the <b>&lt;switch_name&gt;</b> variable
5. <input type="checkbox"/>	<b>SERVER A:</b> Verify SSH service	<b># netConfig --repo showService name=ssh_service</b> Service Name: ssh_service Type: ssh Host: 169.254.1.11 Options: password: 615EBD88232A2EFD0080AC990393083D user: root
6. <input type="checkbox"/>	<b>SERVER A:</b> Change directory	<b># cd</b>
7. <input type="checkbox"/>	<b>SERVER A:</b> Run backup command	<b># netConfig --device=&lt;switch_name&gt; backupConfiguration service=ssh_service filename=&lt;switch_name&gt;-backup</b>

Appendix E.4: Cisco 4948E-F Backup (SDS sites)

Step	Procedure	Result
<p>8.</p> <input type="checkbox"/>	<p><b>SERVER A:</b></p> <p>Verify backup and inspect its contents to ensure they reflect the configured values</p>	<pre># ls &lt;switch_name&gt;-backup* # # cat &lt;switch_name&gt;-backup</pre>
<p>9.</p> <input type="checkbox"/>	<p>Repeat steps 4 - 8 for switch1B.</p>	
<p>10.</p> <input type="checkbox"/>	<p><b>SERVER A:</b></p> <p>Copy the switch1A backup files to the permanent backup storage directory</p>	<pre># scp -p &lt;switch1A_name&gt;-backup* 169.254.1.11:/&lt;switch_backup_directory&gt;/</pre>
<p>11.</p> <input type="checkbox"/>	<p><b>SERVER A:</b></p> <p>Copy the switch1B backup files to the permanent backup storage directory</p>	<pre># scp -p &lt;switch1B_name&gt;-backup* 169.254.1.12:/&lt;switch_backup_directory&gt;/</pre>
<p>12.</p> <input type="checkbox"/>	<p><b>SERVER A:</b></p> <p>Move the switch1A backup files to the permanent backup storage directory</p>	<pre># mv *&lt;switch1A_name&gt;-backup* &lt;switch_backup_directory&gt;/</pre>
<p>13.</p> <input type="checkbox"/>	<p><b>SERVER A:</b></p> <p>Move the switch1B backup files to the permanent backup storage directory</p>	<pre># mv *&lt;switch1B_name&gt;-backup* &lt;switch_backup_directory&gt;/</pre>
<p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>		

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

Table 5 - SDS Network Element Configuration File (IPv6)

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

## Appendix G. NETBACKUP CLIENT INSTALLATION

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

### Appendix G: NetBackup Client Installation

<p><b>Step</b></p>	<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 TEKELEC CUSTOMER SUPPORT AND ASK FOR ASSISTANCE.</p>	
<p>1. <input type="checkbox"/></p>	<p>Install Netbackup Client Software</p>	<p>Execute Section 3.10.5 <i>Application NetBackup Client Procedures</i> of reference [8] 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:  <a href="#">/usr/TKLC/appworks/sbin/bpstart_notify</a>  <a href="#">/usr/TKLC/appworks/sbin/bpend_notify</a></p>
<p>2. <input type="checkbox"/></p>	<p>Link notify scripts to well-known path stated in the above step</p>	<p>Link the notify scripts to well-known path stated in the above step</p> <pre>ln -s &lt;path&gt;/bpstart_notify /usr/opencv/netbackup/bin/bpstart_notify ln -s &lt;path&gt;/bpend_notify /usr/opencv/netbackup/bin/bpend_notify</pre>
<p>3. <input type="checkbox"/></p>	<p>Verify if the Netbackup port 1556 is opened for IPv4 protocol</p>	<p>Verify if the NetBackup port 1556 is opened on IPv4 protocol:</p> <pre>iptables -L 60sds-INPUT -n   grep 1556</pre> <p>If there is no output, then enable the port 1556 for NetBackup on IPv4:</p> <pre>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</pre>
<p>4. <input type="checkbox"/></p>	<p>Verify if the Netbackup port 1556 is opened for IPv6 protocol</p>	<p>Verify if the NetBackup port 1556 is opened on IPv6 protocol:</p> <pre>ip6tables -L 60sds-INPUT -n   grep 1556</pre> <p>If there is no output, then enable the port 1556 for NetBackup on IPv6 protocol:</p> <pre>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</pre>

## Appendix H. LIST OF FREQUENTLY USED TIME ZONES

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

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

Time Zone Value	Description	Universal Time Code (UTC) Offset
<i>Etc/UTC</i>	Coordinated Universal Time	UTC-00
<i>America/New_York</i>	Eastern Time	UTC-05
<i>America/Chicago</i>	Central Time	UTC-06
<i>America/Denver</i>	Mountain Time	UTC-07
<i>America/Phoenix</i>	Mountain Standard Time - Arizona	UTC-07
<i>America/Los_Angeles</i>	Pacific Time	UTC-08
<i>America/Anchorage</i>	Alaska Time	UTC-09
<i>Pacific/Honolulu</i>	Hawaii	UTC-10
<i>Africa/Johannesburg</i>		UTC+02
<i>America/Mexico_City</i>	Central Time - most locations	UTC-06
<i>Africa/Monrovia</i>		UTC+00
<i>Asia/Tokyo</i>		UTC+09
<i>America/Jamaica</i>		UTC-05
<i>Europe/Rome</i>		UTC+01

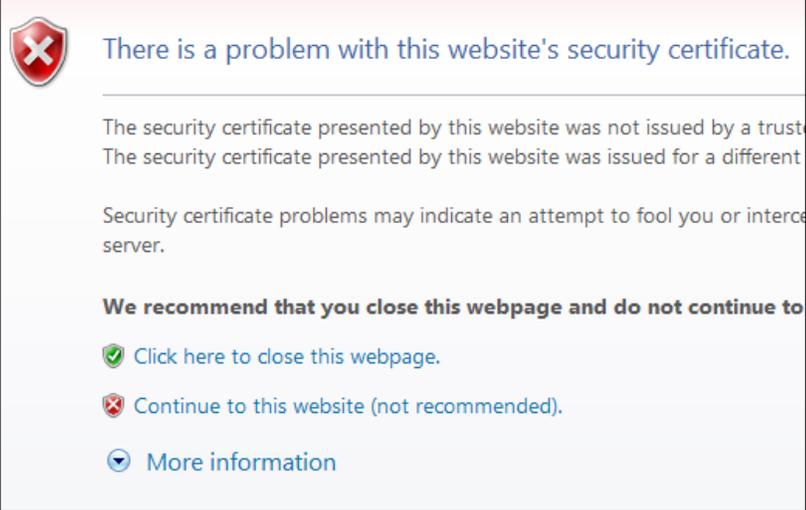
<i>Asia/Hong_Kong</i>		UTC+08
<i>Pacific/Guam</i>		UTC+10
<i>Europe/Athens</i>		UTC+02
<i>Europe/London</i>		UTC+00
<i>Europe/Paris</i>		UTC+01
<i>Europe/Madrid</i>	mainland	UTC+01
<i>Africa/Cairo</i>		UTC+02
<i>Europe/Copenhagen</i>		UTC+01
<i>Europe/Berlin</i>		UTC+01
<i>Europe/Prague</i>		UTC+01
<i>America/Vancouver</i>	Pacific Time - west British Columbia	UTC-08
<i>America/Edmonton</i>	Mountain Time - Alberta, east British Columbia & westSaskatchewan	UTC-07
<i>America/Toronto</i>	Eastern Time - Ontario - most locations	UTC-05
<i>America/Montreal</i>	Eastern Time - Quebec - most locations	UTC-05
<i>America/Sao_Paulo</i>	South & Southeast Brazil	UTC-03
<i>Europe/Brussels</i>		UTC+01

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

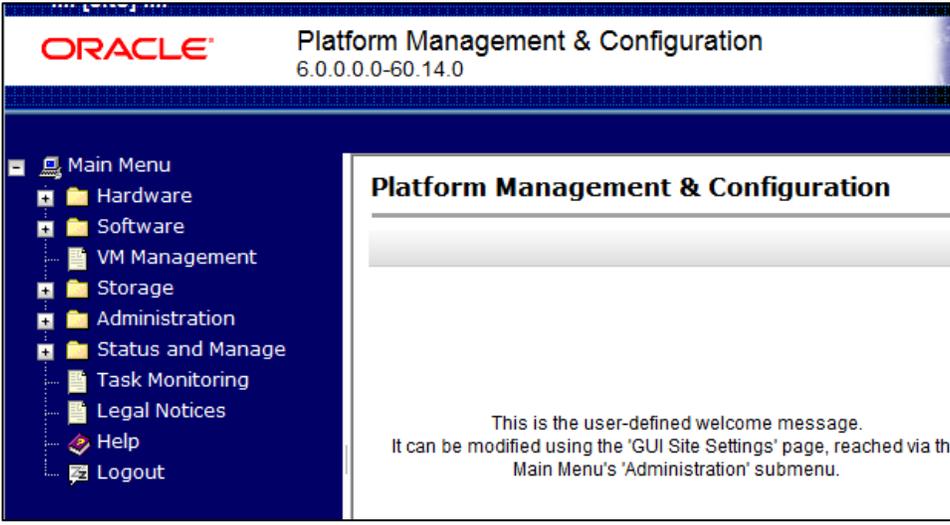
## Appendix I. ACCEPTING INSTALLATION THROUGH SDS NOAM GUI

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

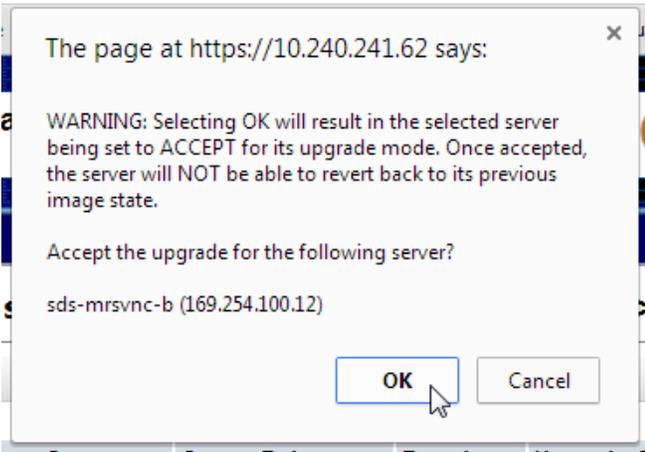
### Appendix I: Accepting Installation through SDS NOAM GUI

Step	Procedure	Result
<p>1.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b></p> <p>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>2.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</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>	

Appendix I: Accepting Installation through SDS NOAM GUI

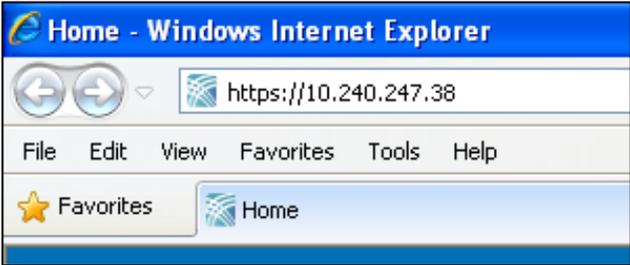
Step	Procedure	Result																												
<p>3.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>The user should be presented the SDS Main Menu as shown on the right.</p>																													
<p>4.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>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> Multi-select is available by holding down the “CTRL” key while using the cursor to left-click multiple rows.</p>	<p><b>Main Menu: Administration -&gt; Software Management -&gt; Upgrade</b></p> <p>Filter <input type="text"/> Tasks <input type="text"/></p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Server Status</th> <th>Server Role</th> <th>Function</th> <th>Upgrade State</th> <th>Start Time</th> <th>Finish Time</th> </tr> </thead> <tbody> <tr> <td>sds-mrsvnc-a</td> <td>Norm Active</td> <td>Standby NO_MRSVNC</td> <td>Network OAM&amp;P OAM&amp;P</td> <td>Not Ready</td> <td></td> <td></td> </tr> <tr> <td>sds-mrsvnc-b</td> <td>Norm Active</td> <td>NO_MRSVNC</td> <td>Network OAM&amp;P OAM&amp;P</td> <td>Not Ready</td> <td></td> <td></td> </tr> <tr> <td>qs-mrsvnc</td> <td>Norm Observer</td> <td>Query Server NO_MRSVNC</td> <td>QS</td> <td>Not Ready</td> <td></td> <td></td> </tr> </tbody> </table>	Hostname	Server Status	Server Role	Function	Upgrade State	Start Time	Finish Time	sds-mrsvnc-a	Norm Active	Standby NO_MRSVNC	Network OAM&P OAM&P	Not Ready			sds-mrsvnc-b	Norm Active	NO_MRSVNC	Network OAM&P OAM&P	Not Ready			qs-mrsvnc	Norm Observer	Query Server NO_MRSVNC	QS	Not Ready		
Hostname	Server Status	Server Role	Function	Upgrade State	Start Time	Finish Time																								
sds-mrsvnc-a	Norm Active	Standby NO_MRSVNC	Network OAM&P OAM&P	Not Ready																										
sds-mrsvnc-b	Norm Active	NO_MRSVNC	Network OAM&P OAM&P	Not Ready																										
qs-mrsvnc	Norm Observer	Query Server NO_MRSVNC	QS	Not Ready																										
<p>5.</p> <p><input type="checkbox"/></p>	<p><b>Primary SDS VIP:</b></p> <p>Using the cursor <b>left-click</b>, select the “Accept” dialogue button.</p>																													

Appendix I: Accepting Installation through SDS NOAM GUI

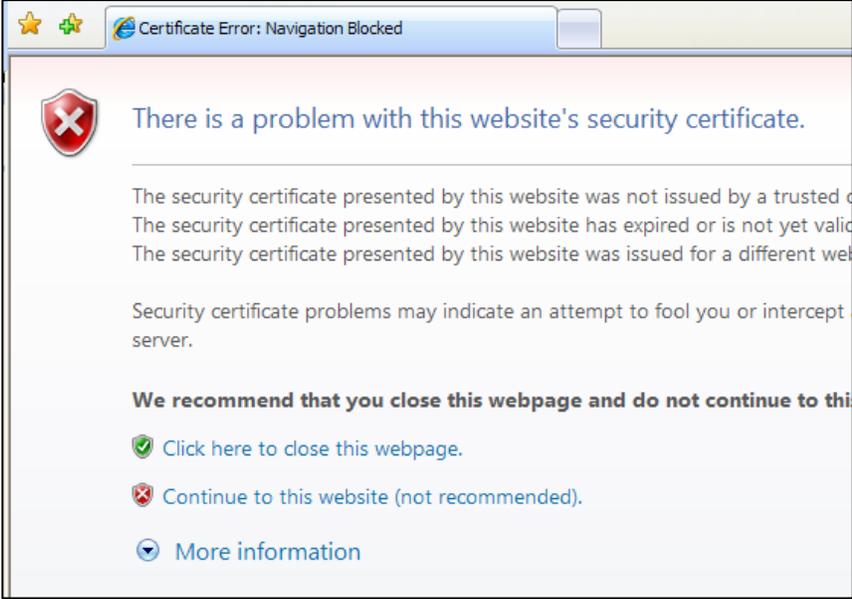
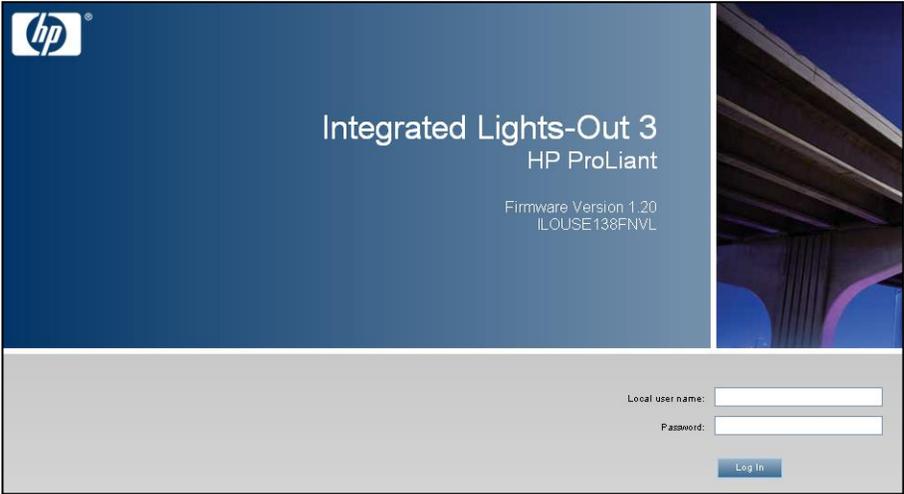
Step	Procedure	Result
<p>6.</p> <input type="checkbox"/>	<p><b>Primary SDS VIP:</b></p> <p>The user is presented with a dialogue box stating that the “<b>Accept Upgrade</b>” action is <b>irreversible</b> and locks the Server on the current software release (<i>i.e. Backout to the previous release is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

## Appendix J. DISABLE HYPERTHREADING (DP ONLY)

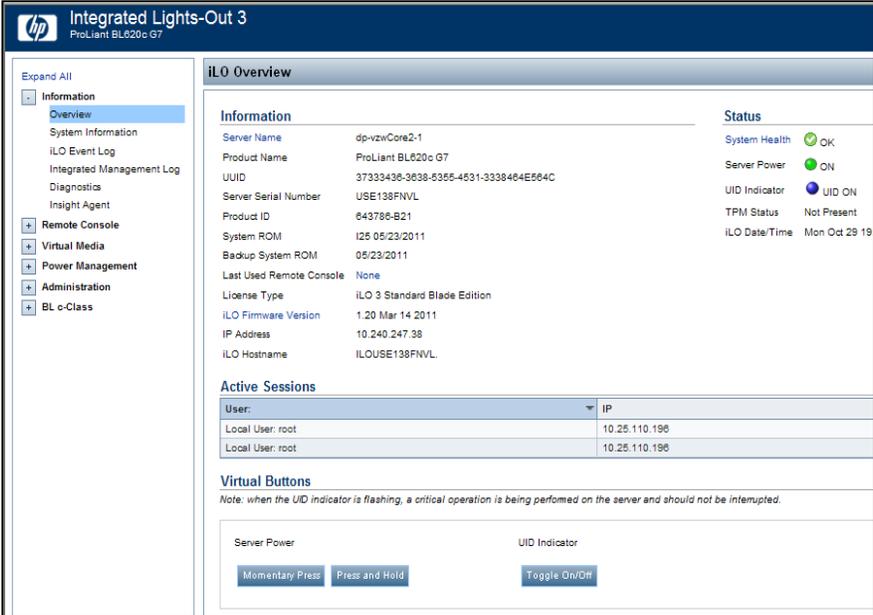
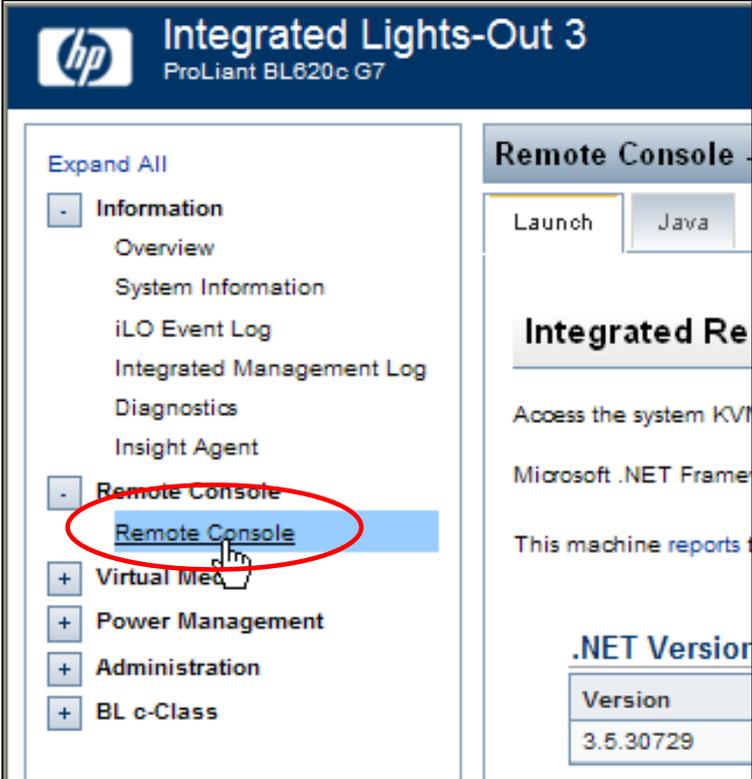
### Appendix J: Disable Hyperthreading (DP Only)

Step	Procedure	Result
<p>1.</p> <input type="checkbox"/>	<p><b>DP Server XMI IP (SSH):</b></p> <p>Access the command prompt via DP blade's <b>XMI IP</b> address and log into the server as the "admusr" user.</p>	<pre>login: admusr Password: &lt;admusr_password&gt;</pre>
<p>2.</p> <input type="checkbox"/>	<p><b>DP Server XMI IP (SSH):</b></p> <p>Change to <b>root</b> user</p>	<pre># sudo su -</pre>
<p>3.</p> <input type="checkbox"/>	<p><b>DP Server XMI IP (SSH):</b></p> <p>Execute "hpsasmcli" command to determine status of hyperthreading for the DP blade.</p>	<pre># hpsasmcli -s "show ht"</pre> <p>Processor hyper-threading is currently enabled.</p> <p><b>NOTE:</b> Output returned may state "enabled" or "disabled".</p>
<p>4.</p> <input type="checkbox"/>	<div style="display: flex; align-items: center;">  <ul style="list-style-type: none"> <li>If output from <b>Step 3</b> shows that hyperthreading is currently "enabled", then continue with <b>Step 5</b> of this procedure.</li> <li>If output from <b>Step 3</b> shows that hyperthreading is currently "disabled", then <b>STOP</b> and restart <b>Appendix J</b> for the next installed <b>DP</b> blade.</li> </ul> </div>	
<p>5.</p> <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 <i>https://</i> for iLO GUI access.</p>	 <p><b>!!! WARNING !!!</b></p> <p><i>Verify the DP-iLO IP address before proceeding. The user must login using the DP-iLO IP address only.</i></p>

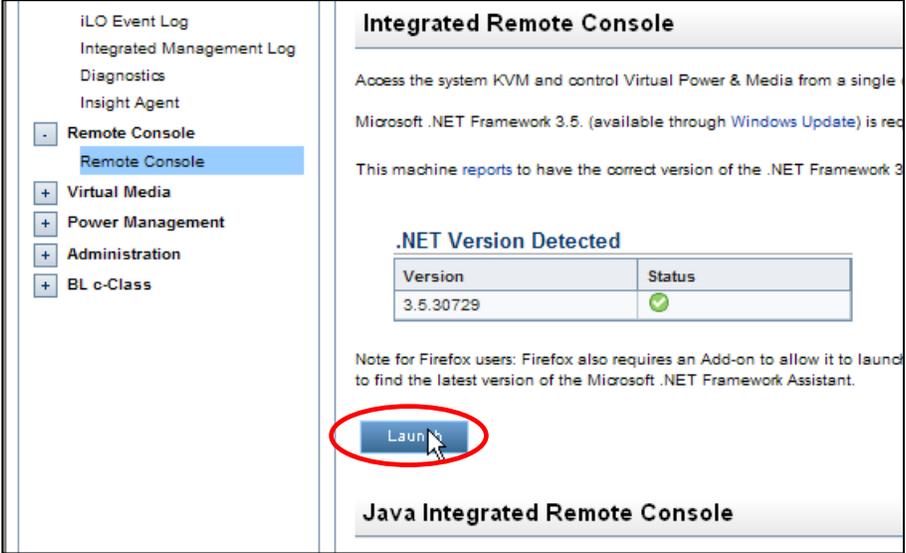
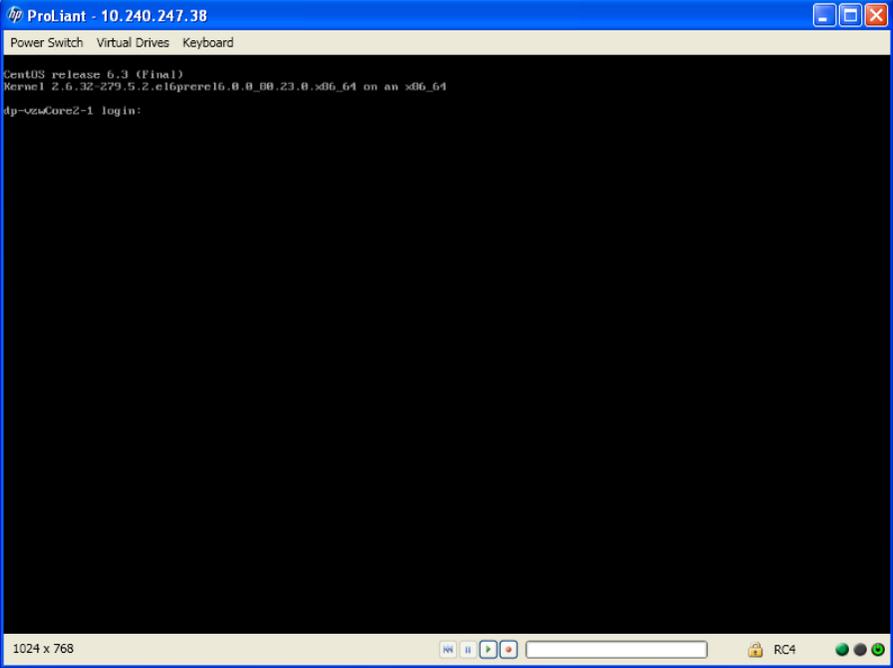
Appendix J: Disable Hyperthreading (DP Only)

Step	Procedure	Result
<p>6.</p> <input type="checkbox"/>	<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>	
<p>7.</p> <input type="checkbox"/>	<p>Login to the iLO console as “root” and enter the configured password.</p>	

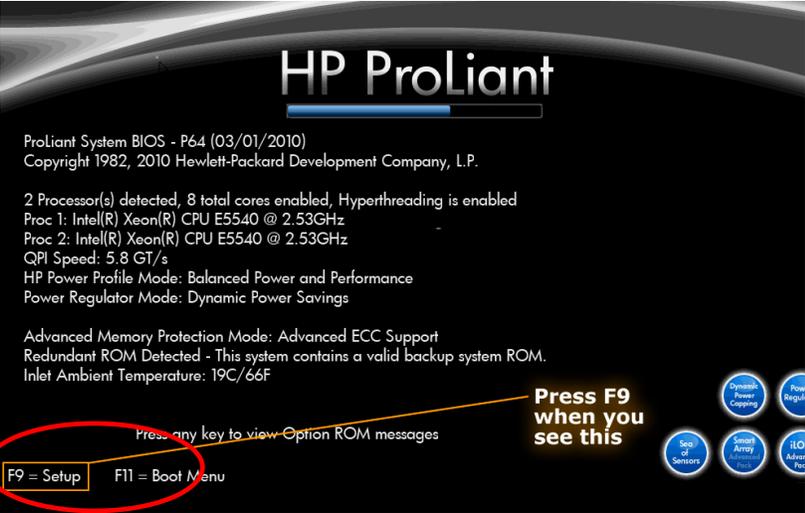
Appendix J: Disable Hyperthreading (DP Only)

Step	Procedure	Result
<p>8.</p> <p><input type="checkbox"/></p>	<p>The admin GUI is displayed.</p> <p>Select the “<b>Remote Console</b>” tab in the upper left corner of the GUI.</p>	 <p>The screenshot shows the HP Integrated Lights-Out 3 interface for a ProLiant BL620c G7 server. The left sidebar contains a menu with 'Remote Console' highlighted. The main area displays 'iLO Overview' with system information and active sessions.</p>
<p>9.</p> <p><input type="checkbox"/></p>	<p>The Remote Console Information GUI is displayed</p> <p>Click on the “<b>Remote Console</b>” menu option</p>	 <p>The screenshot shows the HP Integrated Lights-Out 3 interface with the 'Remote Console' page selected. The 'Remote Console' menu item in the left sidebar is circled in red. The main area shows options to launch the remote console and information about the system's KVM and .NET framework.</p>

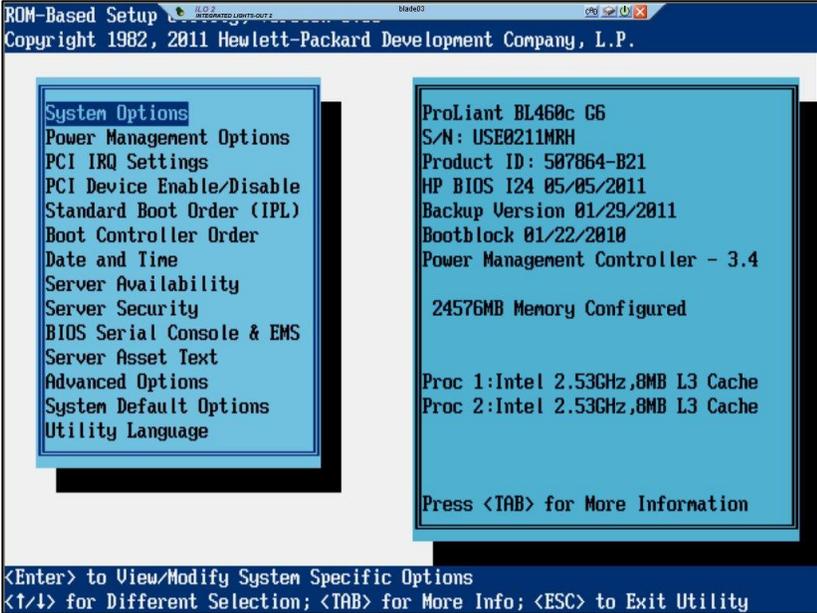
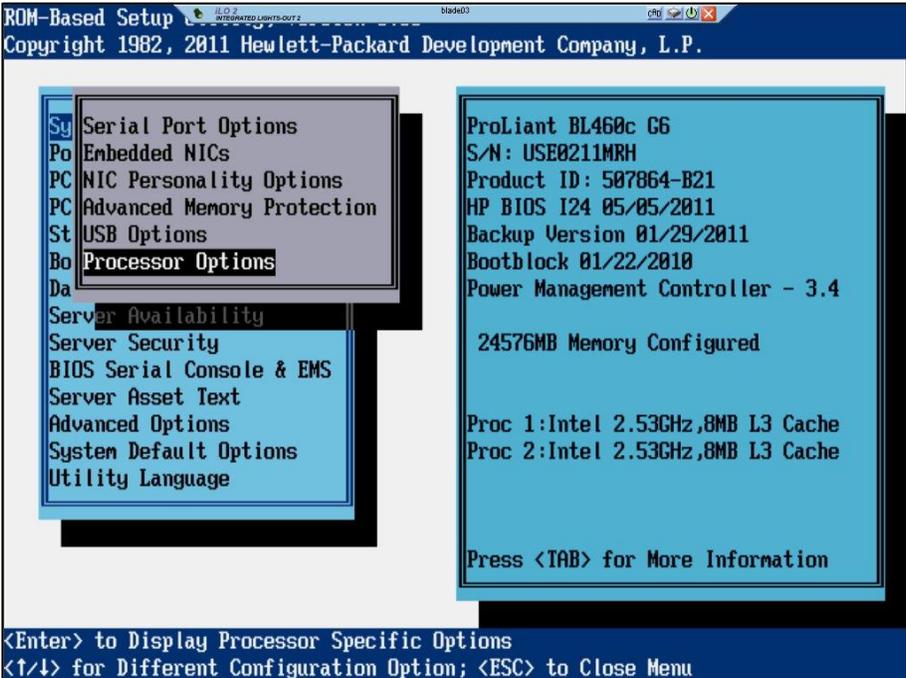
Appendix J: Disable Hyperthreading (DP Only)

Step	Procedure	Result
<p>10.</p> <p><input type="checkbox"/></p>	<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>11.</p> <p><input type="checkbox"/></p>	<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>	
<p>12.</p> <p><input type="checkbox"/></p>	<p>Reboot the server.</p> <p>This can be achieved by logging in as the “<b>root</b>” 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>

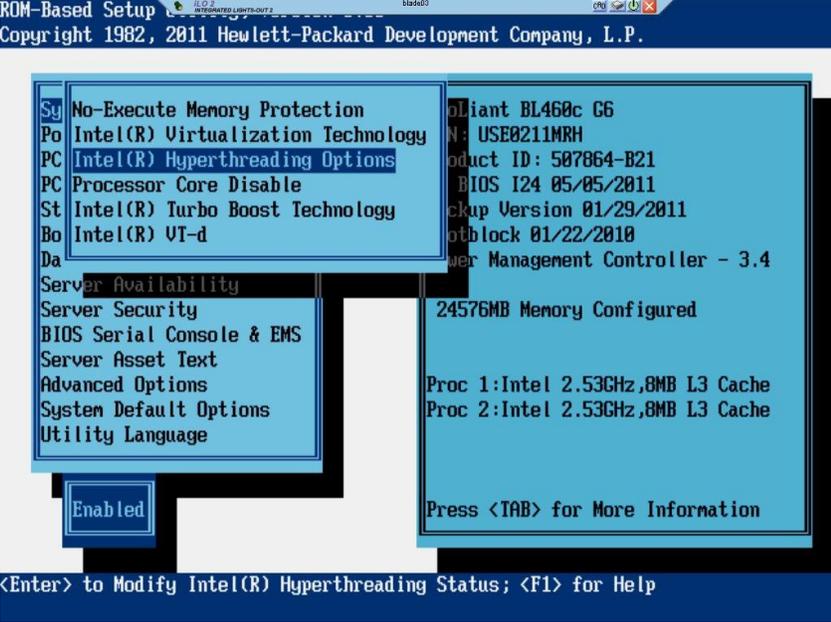
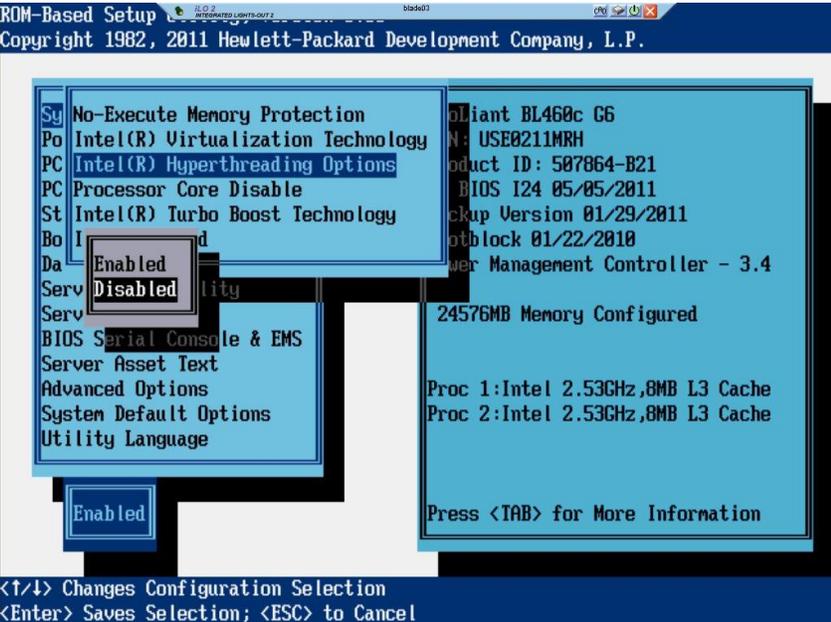
Appendix J: Disable Hyperthreading (DP Only)

Step	Procedure	Result
<p>13.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 10px;"></div>	<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 <b>F9=Setup</b> will change to <b>F9 Pressed</b> 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 <b>2 minutes</b> or more to occur between pressing the <b>F9</b> key and entering the Blade BIOS screen</p>

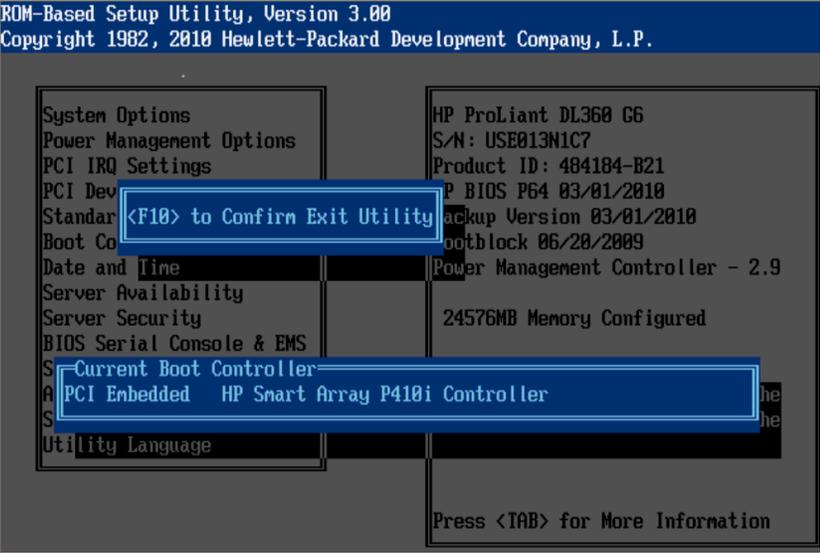
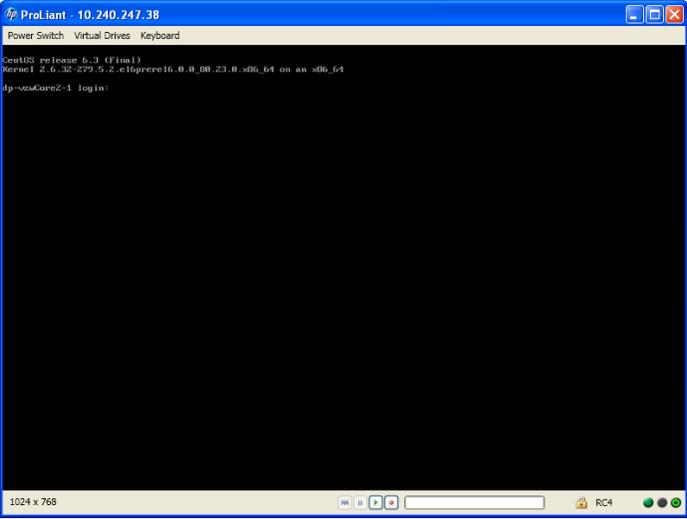
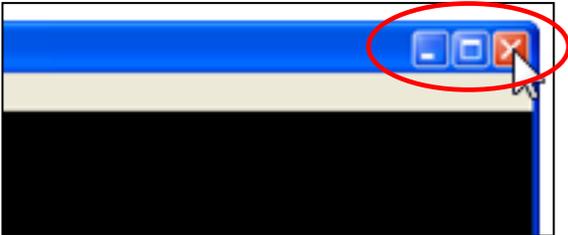
Appendix J: Disable Hyperthreading (DP Only)

Step	Procedure	Result
<p>14.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>Select System Options</p>	<p>Scroll to <b>System Options</b> and press [ENTER]</p>  <p>The screenshot shows the 'ROM-Based Setup' utility. The 'System Options' menu is highlighted, listing: 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, and Utility Language. A secondary window displays system information for a ProLiant BL460c G6, including S/N: USE0211MRH, Product ID: 507864-B21, HP BIOS I24 05/05/2011, Backup Version 01/29/2011, Bootblock 01/22/2010, Power Management Controller - 3.4, and 24576MB Memory Configured. It also lists two Intel 2.53GHz processors with 8MB L3 Cache. Navigation instructions at the bottom state: '&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>
<p>15.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>Select Processor Options</p>	<p>Select <b>Processor Options</b> option and press [ENTER]</p>  <p>The screenshot shows the 'ROM-Based Setup' utility. The 'Processor Options' menu is highlighted, listing: Serial Port Options, Embedded NICs, PC NIC Personality Options, PC Advanced Memory Protection, USB Options, Processor Options, Server Availability, Server Security, BIOS Serial Console &amp; EMS, Server Asset Text, Advanced Options, System Default Options, and Utility Language. A secondary window displays system information for a ProLiant BL460c G6, including S/N: USE0211MRH, Product ID: 507864-B21, HP BIOS I24 05/05/2011, Backup Version 01/29/2011, Bootblock 01/22/2010, Power Management Controller - 3.4, and 24576MB Memory Configured. It also lists two Intel 2.53GHz processors with 8MB L3 Cache. Navigation instructions at the bottom state: '&lt;Enter&gt; to Display Processor Specific Options', '&lt;↑/↓&gt; for Different Configuration Option; &lt;ESC&gt; to Close Menu'.</p>

Appendix J: Disable Hyperthreading (DP Only)

Step	Procedure	Result
<p>16.</p> <p><input type="checkbox"/></p>	<p>Select Hyperthreading Options</p>	<p>Select <b>Intel® Hyperthreading Options</b> and press [ENTER].</p>  <p>The screenshot shows the BIOS ROM-Based Setup interface. The 'Intel(R) Hyperthreading Options' menu is highlighted, and the 'Enabled' option is selected. The background displays system information for a HP BL460c G6 server, including BIOS version 124 05/05/2011 and processor details: Proc 1: Intel 2.53GHz, 8MB L3 Cache; Proc 2: Intel 2.53GHz, 8MB L3 Cache.</p>
<p>17.</p> <p><input type="checkbox"/></p>	<p>Set hyperthreading to Disabled.</p>	<p>Select <b>Disabled</b> option and press [ENTER].</p>  <p>The screenshot shows the BIOS ROM-Based Setup interface. The 'Intel(R) Hyperthreading Options' menu is highlighted, and the 'Disabled' option is selected. The background displays the same system information as the previous screenshot.</p>

Appendix J: Disable Hyperthreading (DP Only)

Step	Procedure	Result
<p>18.</p> <p><input type="checkbox"/></p>	<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>Expected Result: <i>Settings are saved and server reboots.</i></p>
<p>19.</p> <p><input type="checkbox"/></p>	<p>Continue to monitor the server boot process until the screen returns to the login prompt.</p>	
<p>20.</p> <p><input type="checkbox"/></p>	<p>Close the Remote Console window.</p>	

Appendix J: Disable Hyperthreading (DP Only)

Step	Procedure	Result
21. <input type="checkbox"/>	<b>DP Server XMI IP (SSH):</b>  Access the command prompt via the server's <b>XMI IP</b> address and log into the server as the "admusr" user.	<pre>login: admusr Password: &lt;admusr_password&gt;</pre>
22. <input type="checkbox"/>	<b>DP Server XMI IP (SSH):</b>  Change to <b>root</b> user	<pre># sudo su -</pre>
23. <input type="checkbox"/>	<b>DP Server XMI IP (SSH):</b>  1) Execute "syscheck".  2) Record the number of "found" CPU(s) below.  "found" CPU(s): _____	<pre># syscheck  Running modules in class disk... OK Running modules in class hardware... OK Running modules in class net... OK Running modules in class proc... OK Running modules in class system...  *      cpu: FAILURE:: MINOR::5000000000000004 -- Server Hardware Configuration Error *      cpu: FAILURE:: 40 CPU(s) on the system, found "20" instead. One or more module in class "system" FAILED  LOG LOCATION: /var/TKLC/log/syscheck/fail_log</pre>
24. <input type="checkbox"/>	<b>DP Server XMI IP (SSH):</b>  Modify the "EXPECTED_CPUS" value to the number of "found" CPU(s) recorded in the previous Step 23 of this Procedure.	<pre># syscheckAdm system cpu --set --var='EXPECTED_CPUS' --val='20'</pre>
25. <input type="checkbox"/>	<b>DP Server XMI IP (SSH):</b>  Verify that the "EXPECTED_CPUS" value has been updated to the correct number	<pre># syscheckAdm system cpu -get -var='EXPECTED_CPUS'  20</pre>
26. <input type="checkbox"/>	<b>DP Server XMI IP (SSH):</b>  Restart "syscheck"	<pre># restart syscheck</pre>

Appendix J: Disable Hyperthreading (DP Only)

Step	Procedure	Result
27. <input type="checkbox"/>	<b>DP Server XMI IP (SSH):</b>  Modify the number of CPUs recorded at OS installation to the number of <b>“found” CPU(s)</b> recorded in the <b>Step 24</b> of this Procedure.	<pre># echo 20 &gt; /usr/TKLC/awpcommon/prod/bin/NumOriginalCpus</pre>
28. <input type="checkbox"/>	<b>DP Server XMI IP (SSH):</b>  Verify the number of CPUs has been updated to the correct number	<pre># cat /usr/TKLC/awpcommon/prod/bin/NumOriginalCpus</pre> <p>20</p>
29. <input type="checkbox"/>	<b>DP Server XMI IP (SSH):</b>  Execute <b>“syscheck”</b> to verify that the previous CPU alarms have been cleared	<pre># syscheck</pre> <p>Running modules in class disk... OK</p> <p>Running modules in class hardware... OK</p> <p>Running modules in class net... OK</p> <p>Running modules in class proc... OK</p> <p>Running modules in class system... OK</p> <p>LOG LOCATION: /var/TKLC/log/syscheck/fail_log</p>
30. <input type="checkbox"/>	<b>DP Server XMI IP (SSH):</b>  Exit from the server command line.	<pre># exit</pre> <p>logout</p>
31. <input type="checkbox"/>	<ul style="list-style-type: none"> <li>Repeat this procedure until hyperthreading has been <b>“disabled”</b> for all installed <b>DP</b> blades.</li> </ul>	
<b>THIS PROCEDURE HAS BEEN COMPLETED</b>		

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

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

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

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

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

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

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

### Emergency Response

In the event of a critical service situation, emergency response is offered by the Customer Access Support (CAS) main number at 1-800-223-1711 (toll-free in the US), or by calling the Oracle Support hotline for your local country from the list at <http://www.oracle.com/us/support/contact/index.html>. The emergency response provides immediate coverage, automatic escalation, and other features to ensure that critical situation is resolved as rapidly as possible. A critical situation is defined as a problem with the installed equipment that severely affects service, traffic, or maintenance capabilities, and requires immediate corrective action.

Critical Situations affect service and/or system operation resulting in one or several of these situations:

- A total system failure that results in loss of all transaction processing capability.
- Significant reduction in system capacity or traffic handling capability
- Loss of the system's ability to perform automatic system reconfiguration
- Inability to restart a processor or the system.
- Corruption of system databases that requires service affecting corrective actions
- Loss of access for maintenance or recovery operations.
- Loss of system ability to provide any required critical or major trouble notification

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